

## DOCUMENT RESUME

ED 425 462

CS 013 352

TITLE NAEP 1994 Reading State Report for Guam. Trial State Assessment.

INSTITUTION National Assessment of Educational Progress, Princeton, NJ.; Educational Testing Service, Princeton, NJ.

SPONS AGENCY National Center for Education Statistics (ED), Washington, DC.

PUB DATE 1995-12-00

NOTE 211p.; For the entire report covering the nation and the states, see ED 388 962. For the 42 separate reports for 40 states, Guam, and the Department of Defense Education Activity (DoDEA) Overseas Schools, see CS 013 312-353.

AVAILABLE FROM Web site:  
<http://nces.ed.gov/nationsreportcard/y25tsa/overall.shtml>

PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143)

EDRS PRICE MF01/PC09 Plus Postage.

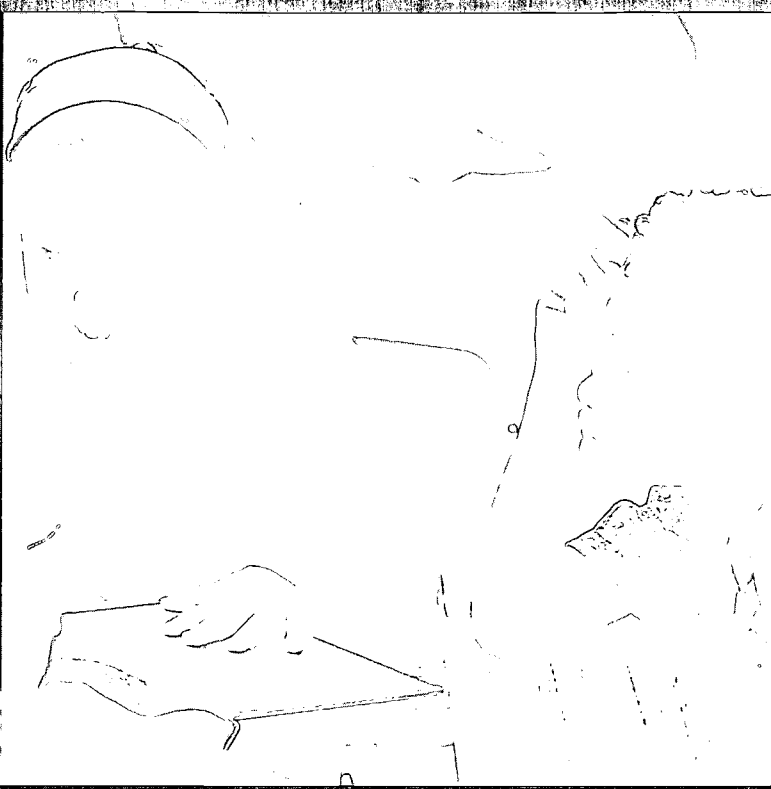
DESCRIPTORS Comparative Analysis; \*Grade 4; Intermediate Grades; \*National Competency Tests; \*Reading Achievement; Reading Research; \*Standardized Tests; \*Student Evaluation; Tables (Data); Test Results

IDENTIFIERS \*Guam; National Assessment of Educational Progress; State Reading Assessments; Trial State Assessment (NAEP)

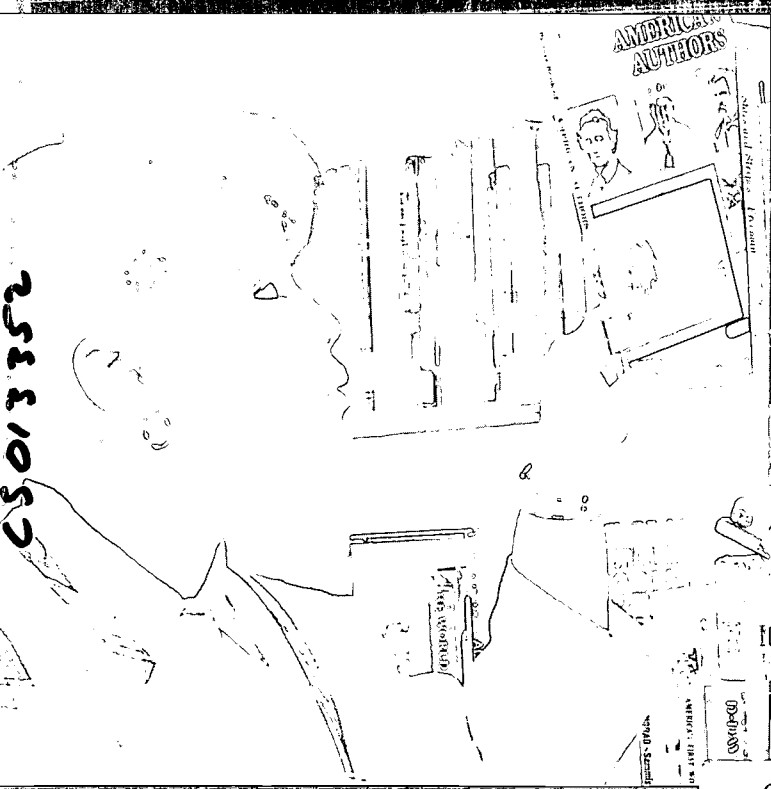
## ABSTRACT

In 1990, the National Assessment of Educational Progress (NAEP) included a Trial State Assessment (TSA); for the first time in NAEP's history, voluntary state-by-state assessments were made. In 1994, TSA was expanded to include non-public school students. The 1994 reading assessment considered students' proficiency in situations that involved reading different kinds of materials for different purposes. The fourth-grade assessment measured two global purposes for reading--reading for literary experience and reading to gain information. In Guam, 2,203 students in 21 public schools and 372 students in 9 non-public schools were assessed. This report describes the reading proficiency of Guam fourth-graders and compares their overall performance to students in the nation (using data from the NAEP national assessments). The distribution of reading results and reading achievement level results are provided for subpopulations of students (race/ethnicity, type of location, parents, educational level, and gender). Reading proficiency and achievement of non-public school students are separately reported and compared to public school students. To provide a context for the assessment data, participating public school students, their reading teachers, and principals completed questionnaires which focused on: policies and practices related to reading (time for instructional activities and instructional resources for reading); delivery of reading instruction (instructional materials and activities, workbooks/ worksheets/writing, discussion and group activities, time to read, reading and use of libraries, assessing progress in reading); reading instructors (preparation, experience and professional development); students' home support for literacy (reading outside of school and in the home and hours of television watched per day). The average reading proficiency of fourth-grade public school students in Guam on the NAEP reading scale was 181 compared to 212 nationwide. (SR)

ED 425 462



# NAEP 1994 READING STATE REPORT FOR GUAM



CS013352



U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

---

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



# What is The Nation's Report Card?

THE NATION'S REPORT CARD, the National Assessment of Educational Progress (NAEP), is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, history/geography, and other fields. By making objective information on student performance available to policymakers at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement is collected under this program. NAEP guarantees the privacy of individual students and their families.

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

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

## The National Assessment Governing Board

**Honorable William T. Randall, Chair**  
Commissioner of Education  
State Department of Education  
Denver, Colorado

**Mary R. Blanton**  
Attorney  
Salisbury, North Carolina

**Honorable Evan Bayh**  
Governor of Indiana  
Indianapolis, Indiana

**Patsy Cavazos**  
Principal  
W.G. Love Elementary School  
Houston, Texas

**Honorable Naomi K. Cohen**  
Former Representative  
State of Connecticut  
Hartford, Connecticut

**Charlotte A. Crabtree**  
Professor of Education  
University of California  
Los Angeles, California

**Catherine L. Davidson**  
Secondary Education Director  
Central Kitsap School District  
Silverdale, Washington

**James E. Ellingson**  
Fourth-grade Teacher  
Probstfield Elementary School  
Moorhead, Minnesota

**Chester E. Finn, Jr.**  
John M. Olin Fellow  
Hudson Institute  
Washington, DC

**Michael J. Guerra**  
Executive Director  
Secondary School Department  
National Catholic Education Association  
Washington, DC

**William (Jerry) Hume**  
Chairman  
Basic American, Inc.  
San Francisco, California

**Jan B. Loveless**  
Educational Consultant  
Jan B. Loveless & Associates  
Midland, Michigan

**Marilyn McConachie**  
Local School Board Member  
Glenbrook High Schools  
Glenview, Illinois

**Honorable Stephen E. Merrill**  
Governor of New Hampshire  
Concord, New Hampshire

**Jason Millman**  
Prof. of Educational Research Methodology  
Cornell University  
Ithaca, New York

**Honorable Richard P. Mills**  
Commissioner of Education  
New York State Department of Education  
Albany, New York

**William J. Moloney**  
Superintendent of Schools  
Calvert County Public Schools  
Prince Frederick, Maryland

**Mark D. Musick**  
President  
Southern Regional Education Board  
Atlanta, Georgia

**Mitsugi Nakashima**  
Hawaii State Board of Education  
Honolulu, Hawaii

**Michael T. Nettles**  
Professor of Education & Public Policy  
University of Michigan  
Ann Arbor, Michigan

**Honorable Edgar D. Ross**  
Attorney  
Christiansted, St. Croix  
U.S. Virgin Islands

**Fannie N. Simmons**  
Mathematics Specialist  
Midlands Improving Math & Science Hub  
Columbia, South Carolina

**Marilyn A. Whirry**  
Twelfth-grade English Teacher  
Mira Costa High School  
Manhattan Beach, California

**Sharon P. Robinson (ex-officio)**  
Assistant Secretary  
Office of Educational Research  
and Improvement  
U.S. Department of Education  
Washington, DC

**Roy Truby**  
Executive Director, NAGB  
Washington, DC

---

NATIONAL CENTER FOR EDUCATION STATISTICS

---

# NAEP 1994 READING STATE REPORT

*for*

## GUAM

---

December 1995

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

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



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

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

**National Center for Education Statistics**  
Jeanne E. Griffith  
Acting Commissioner

**Education Assessment Division**  
Gary W. Phillips  
Associate Commissioner

---

December 1995

**FOR MORE INFORMATION:**

For ordering information on this report, write:

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

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

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

Educational Testing Service is an equal opportunity, affirmative action employer.

*Educational Testing Service, ETS*, and the ETS logo are registered trademarks of Educational Testing Service.

# Table of Contents

<b>EXECUTIVE SUMMARY</b> .....	1
<b>OVERVIEW</b> .....	15
This Report .....	17
Guidelines for Analysis and Reporting .....	19
Profile of Guam .....	21
<b>PART ONE</b> The Reading Proficiency of Fourth-Grade Students in Guam .....	27
<b>CHAPTER 1</b> Students' Reading Proficiency .....	29
Proficiency According to Purpose for Reading .....	32
<b>CHAPTER 2</b> Reading Proficiency of Fourth-Grade Students by Subpopulations .....	33
Race/Ethnicity .....	33
Parents' Education Level .....	35
Gender .....	37
Proficiency According to Purpose for Reading .....	38
Reading Proficiency of Non-Public School Students .....	39
<b>PART TWO</b> Reading Achievement Levels .....	41
<b>CHAPTER 3</b> Students' Reading Achievement .....	45
<b>CHAPTER 4</b> Reading Achievement of Fourth-Grade Students by Subpopulations .....	53
Race/Ethnicity .....	53
Parents' Education Level .....	55
Gender .....	57
Reading Achievement of Non-Public School Students .....	58

<b>PART THREE</b>	<b>Finding a Context for Understanding Students'</b>	
	Reading Proficiency in Public Schools .....	59
<b>CHAPTER 5</b>	<b>Policies and Practices Related to Reading .....</b>	<b>61</b>
	Time for Instructional Activities .....	63
	Instructional Resources for Reading .....	64
<b>CHAPTER 6</b>	<b>How Is Reading Instruction Delivered? .....</b>	<b>67</b>
	Instructional Materials for Reading .....	67
	Instructional Activities .....	71
	Workbooks, Worksheets, and Writing .....	72
	Discussion and Group Activities .....	74
	Time to Read .....	76
	Reading and Use of Libraries .....	78
	Assessing Progress in Reading .....	80
<b>CHAPTER 7</b>	<b>Who Is Teaching Reading to Fourth Graders? .....</b>	<b>83</b>
	Preparation and Experience .....	83
	Professional Development .....	85
<b>CHAPTER 8</b>	<b>Students' Home Support for Literacy .....</b>	<b>87</b>
	Reading Outside of School .....	87
	Reading in the Home .....	91
	Hours of Television Watched Per Day .....	93
<b>APPENDIX A</b>	<b>Procedural Appendix .....</b>	<b>95</b>
<b>APPENDIX B</b>	<b>Reading Stimuli .....</b>	<b>121</b>
<b>APPENDIX C</b>	<b>Setting the Achievement Levels .....</b>	<b>129</b>
<b>APPENDIX D</b>	<b>Data Appendix .....</b>	<b>133</b>

# List of Tables

Table O.1 Profile of Fourth-Grade Students in Guam and the Nation . . . . .	23
Table O.2 Profile of the Fourth-Grade Population Assessed in Guam . . . . .	25
Table 1.1 Distribution of Reading Proficiency for Fourth-Grade Public School Students . . . . .	31
Table 1.2 Distribution of Reading Proficiency for Fourth-Grade Public School Students According to Purpose for Reading . . . . .	32
Table 2.1 Distribution of Reading Proficiency for Fourth-Grade Public School Students by Race/Ethnicity . . . . .	34
Table 2.2 Distribution of Reading Proficiency for Fourth-Grade Public School Students by Parents' Level of Education . . . . .	36
Table 2.3 Distribution of Reading Proficiency for Fourth-Grade Public School Students by Gender . . . . .	37
Table 2.4 Fourth-Grade Public School Students' Average Reading Proficiency According to Purpose for Reading by Subpopulation . . . . .	38
Table 2.5 Distribution of Reading Proficiency for Fourth-Grade Students, Non-Public and Combined Schools . . . . .	39
Table 2.6 Distribution of Reading Proficiency for Fourth-Grade Students According to Purpose for Reading, Non-Public and Combined Schools . . . . .	40
Table 3.1 Levels of Fourth-Grade Public School Students' Reading Achievement	51
Table 4.1 Levels of Fourth-Grade Public School Students' Reading Achievement by Race/Ethnicity . . . . .	54
Table 4.2 Levels of Fourth-Grade Public School Students' Reading Achievement by Parents' Level of Education . . . . .	56
Table 4.3 Levels of Fourth-Grade Public School Students' Reading Achievement by Gender . . . . .	57
Table 4.4 Levels of Fourth-Grade Students' Reading Achievement, Non-Public and Combined Schools . . . . .	58
Table 5.1 Reading Policies and Practices in Fourth-Grade Public Schools . . . . .	62
Table 5.2 Public School Teachers' Reports on Time Spent Teaching Reading . . .	63
Table 5.3 Public School Teachers' Reports on the Availability of Resources . . . .	65

Table 6.1	Public School Teachers' Reports on Instructional Materials for Reading	68
Table 6.2	Public School Teachers' Reports on Resources for Reading Instruction	70
Table 6.3	Public School Teachers' and Students' Reports on Workbooks, Worksheets, and Writing	73
Table 6.4	Public School Teachers' and Students' Reports on the Frequency of Discussion and Group Activities	75
Table 6.5	Public School Teachers' and Students' Reports on the Frequency of Reading in Class	77
Table 6.6	Public School Teachers' Reports on Sending Students to the Library	78
Table 6.7	Public School Teachers' Reports on Assigning Books from the Library	79
Table 6.8	Public School Teachers' Reports on Assessing Progress in Reading	81
Table 7.1	Public School Teachers' Reports on Their Fields of Study and Teaching Experience	84
Table 7.2	Public School Teachers' Reports on Time Spent in Staff Development Workshops and Seminars	85
Table 7.3	Public School Teachers' Reports on Training in Specific Reading Areas	86
Table 8.1	Public School Students' Reports on the Frequency of Reading for Fun	88
Table 8.2	Public School Students' Reports on the Number of Books Read Outside of School in the Past Month	89
Table 8.3	Public School Students' Reports on the Frequency of Taking Books Out of the Library	90
Table 8.4	Public School Students' Reports on types of Reading Materials in the Home	91
Table 8.5	Public School Students' Reports on Talking With Friends and Family About Reading	92
Table 8.6	Public School Students' Reports on the Amount of Time Spent Watching Television Each Day	94
Table C.1	Cutpoints for Achievement Levels at Grade 4	130

## List of Figures

Figure 3.1	Levels of Reading Achievement at Grade 4	46
Figure A.1	Descriptions of Reading Purposes	97
Figure A.2	Descriptions of Reading Stances	98



EXECUTIVE  
SUMMARY

In 1988, Congress passed legislation for the National Assessment of Educational Progress (NAEP) that continued its primary mission of providing dependable and comprehensive information about educational progress in the United States. In addition, for the first time in the project's history, the legislation also included a provision authorizing voluntary state-by-state assessments on a trial basis.

As a result of the legislation, the 1990 NAEP program included a Trial State Assessment Program in which public-school students in 37 states, the District of Columbia, and two territories were assessed in eighth-grade mathematics.<sup>1</sup> The 1992 NAEP program included an expanded Trial State Assessment Program in fourth-grade reading and fourth- and eighth-grade mathematics, with public-school students assessed in 41 states, the District of Columbia, and two territories.<sup>2</sup>

The continuation of NAEP's Trial State Assessment Program in 1994 was authorized by additional legislation that enlarged the state-by-state assessment to include non-public school students. In addition to the state assessment program in reading at grade 4, the 1994 NAEP involved national assessments of reading, world geography, and U.S. history at grades 4, 8, and 12. The 1994 Trial State Assessment Program was conducted in February 1994 with 44 participants (41 states, the District of Columbia, Guam, and the Department of Defense Education Activity [DoDEA] Overseas Schools).

This computer-generated report describes the reading proficiency of fourth-grade students in Guam and the nation. The distribution of reading proficiency results and reading achievement level results are provided for groups of students defined by shared characteristics: race/ethnicity, parents' education level, and gender. Contextual information about reading policies, instruction, and home support for reading is presented for public school students. State results are based on the representative sample of students who participated in the 1994 Trial State Reading Assessment Program. Results for the nation are based on the national representative sample of students who participated in the national NAEP assessment.

---

<sup>1</sup> For a summary of the 1990 program, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States*. (Washington, DC: National Center for Education Statistics, 1991).

<sup>2</sup> For a summary of the 1992 assessment of reading, see Ina V.S. Mullis, Jay R. Campbell, and Alan E. Farstrup. *The NAEP 1992 Reading Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993). For a summary of the 1992 assessment of mathematics, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *NAEP 1992 Mathematics Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993).

### **School and Student Participation in the Reading Assessment**

In Guam, 21 public schools and 9 non-public schools participated in the 1994 fourth-grade reading assessment. These numbers include participating substitute schools that were selected to replace some of the nonparticipating schools from the original sample. The weighted **school** participation rate after substitution in 1994 was 100 percent for public schools and 96 percent for non-public schools, which means that the fourth-grade students in this sample were **directly** representative of 100 percent and 96 percent of all the fourth-grade public and non-public school students in Guam, respectively.

In Guam, 2,203 public school and 372 non-public school fourth-grade students were assessed in 1994. The weighted **student** participation rate was 96 percent for public schools and 98 percent for non-public schools. This means that the sample of fourth-grade students who took part in the assessment was **directly** representative of 96 percent of the **eligible** public school student population and 98 percent of the **eligible** non-public school student population in **participating** schools in Guam (that is, all students from the population represented by the participating schools, minus those students excluded from the assessment).

The **overall** weighted response rate (school rate times student rate) was 96 percent and 94 percent for public and non-public schools, respectively. This means that the sample of students who participated in the assessment was **directly** representative of 96 percent of the eligible fourth-grade public school population and 94 percent of the eligible fourth-grade non-public school population in Guam.

Following standard practice in survey research, the results presented in this report were produced using calculations which incorporate adjustments for the nonparticipating schools and students. Hence, the final results derived from the sample provide estimates of the reading proficiency and achievement for the **full** population of eligible public and non-public school fourth-grade students in Guam. However, these nonparticipation adjustments may not adequately compensate for the missing sample schools and students in instances where nonparticipation rates are large.

In order to guard against potential nonparticipation bias in published results, NCES has established minimum participation levels necessary for the publication of 1994 Trial State Assessment results. NCES also established additional guidelines that address four ways in which nonparticipation bias could be introduced into a jurisdiction's published results (see Appendix A). In 1994, Guam met all established NCES participation rate guidelines for both public and nonpublic schools. Hence, results for both types of schools are included in this report.

**Students' Reading Performance**

The table below shows the distribution of reading proficiency of fourth-grade students attending public schools in Guam and the nation.

**1994, Public School Students**

The average reading proficiency of fourth-grade public school students in Guam on the NAEP reading scale was 181. This average was lower than that of students across the nation (212).<sup>3</sup> The lowest performing 10 percent of public school fourth graders in Guam had proficiencies at or below 126 while the top 10 percent had proficiencies at or above 234. In public schools across the nation, the lowest performing 10 percent of fourth graders had proficiencies at or below 156; the top performing 10 percent of students had proficiencies at or above 261.

**1992 vs 1994, Public School Students**

There was no significant change in the average performance of fourth-grade public school students in Guam from 1992 to 1994 (182 in 1992 and 181 in 1994). During the same period, there was no significant change in the average performance of fourth-grade public school students across the nation (215 in 1992 and 212 in 1994).



**Distribution of Reading Proficiency for Fourth-Grade Public School Students**

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>1992</b>						
Guam	182 (1.4)	128 (2.4)	155 (3.0)	185 (1.8)	211 (1.3)	233 (2.0)
Nation	215 (1.0)	168 (1.9)	192 (1.0)	217 (1.7)	240 (1.3)	259 (2.3)
<b>1994</b>						
Guam	181 (1.2)	126 (1.3)	154 (1.8)	183 (1.6)	211 (1.4)	234 (1.2)
Nation	212 (1.1)	156 (2.1) <	187 (1.5) <	217 (1.2)	241 (1.2)	261 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

<sup>3</sup> Differences reported as significant are statistically different at the 95 percent confidence level. This means that with 95 percent confidence there is a real difference in the average reading proficiency between the two populations of interest.

### Performance According to Purpose for Reading

The 1994 Trial State Assessment Program considered students' performance in situations that involved reading different kinds of materials for different purposes. The fourth-grade reading assessment measured two global purposes for reading — **reading for literary experience** and **reading to gain information**. The table below provides results for Guam and the nation according to each reading purpose.

#### *1994, Public School Students*

The proficiency of public school students in Guam in reading for literary experience (184) was lower than that of students across the nation (214). Similarly, in reading to gain information, the proficiency of public school students in Guam (177) was lower than that of students across the nation (210).

#### *1992 vs 1994, Public School Students*

Guam's public school fourth graders showed no significant change from 1992 to 1994 in reading for literary experience. Similarly, in reading to gain information, public school fourth graders in Guam exhibited no significant change from 1992 to 1994.



1994 Trial State Assessment

### *Distribution of Reading Proficiency for Fourth-Grade Public School Students According to Purpose for Reading*

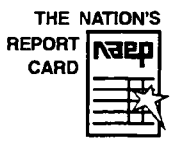
	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>Reading for Literary Experience</b>						
<b>1992 Public</b>						
Guam	187 (1.6)	129 (4.1)	159 (2.4)	190 (1.8)	218 (1.6)	241 (1.5)
Nation	217 (1.0)	169 (1.7)	194 (1.2)	219 (1.1)	242 (1.3)	262 (1.6)
<b>1994 Public</b>						
Guam	184 (1.3)	124 (3.3)	154 (2.5)	187 (1.6)	216 (1.5)	242 (1.4)
Nation	214 (1.2)	157 (2.2) <	189 (1.8)	219 (1.1)	244 (1.2)	264 (1.3)
<b>Reading to Gain Information</b>						
<b>1992 Public</b>						
Guam	176 (1.3)	120 (3.4)	149 (2.1)	179 (1.8)	206 (1.7)	230 (2.5)
Nation	212 (1.2)	162 (1.8)	187 (1.4)	214 (1.2)	238 (1.3)	259 (1.9)
<b>1994 Public</b>						
Guam	177 (1.2)	122 (1.2)	150 (1.3)	178 (1.8)	207 (1.3)	231 (1.8)
Nation	210 (1.2)	151 (2.0) <	183 (1.4)	214 (1.5)	240 (1.5)	262 (1.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

### Levels of Reading Achievement

The most recent reauthorization of the National Assessment Governing Board (NAGB) continues the Board's responsibilities to set policy for NAEP and to "develop appropriate student achievement levels for each age and grade in subject areas tested" (Pub. L. 103-382).

NAGB developed three achievement levels for each grade — Basic, Proficient, and Advanced. Performance at the Basic level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at each grade level. The central level, called Proficient, represents solid academic performance at each grade level tested. Students reaching this level demonstrate competency over challenging subject matter and are well prepared for the next level of schooling. Performance at the Advanced level signifies superior performance at the grade tested. Definitions of the three levels of reading achievement are given below. Chapter 3 provides further elaboration of these levels and presents examples of types of questions that students at each of the three achievement levels can respond to effectively.



1994 Trial State Assessment

### *Description of Fourth-Grade Reading Achievement Levels*

Achievement Level	Scale Cutpoint	Description
ADVANCED	268	Fourth-grade students performing at the <i>Advanced level</i> 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.
PROFICIENT	238	Fourth-grade students performing at the <i>Proficient level</i> 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.
BASIC	208	Fourth-grade students performing at the <i>Basic level</i> should demonstrate an understanding of the overall meaning of what they read. When reading texts appropriate for fourth graders, they should be able to make relatively obvious connections between the text and their own experiences.



The table below provides the percentage of fourth-grade students at or above each achievement level, as well as the percentage of students below the Basic level.

**1994, Public School Students**

The percentage of public school students in Guam who were at or above the Proficient level (8 percent) was lower than that of students across the nation (28 percent).

**1992 vs 1994, Public School Students**

From 1992 to 1994, there was no significant change in the percentage of public school students in Guam who attained the Proficient level (8 percent in 1992 and 8 percent in 1994). Similarly, there was no significant change in the percentage of public school students across the nation who attained the Proficient level (27 percent in 1992 and 28 percent in 1994).



**Levels of Fourth-Grade Public School Students' Reading Achievement**

	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
	Percentage			
<b>1992 Public</b>				
Guam	1 (0.3)	8 (0.8)	28 (1.2)	72 (1.2)
Nation	6 (0.6)	27 (1.3)	60 (1.1)	40 (1.1)
<b>1994 Public</b>				
Guam	1 (0.3)	8 (0.8)	27 (1.1)	73 (1.1)
Nation	7 (0.7)	28 (1.2)	59 (1.1)	41 (1.1)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

**Subpopulation Performance**

Assessment results repeatedly show differences in performance for subpopulations of students.<sup>4</sup> The 1994 Trial State Assessment provides additional information about the performance of important subpopulations by reporting on the reading proficiencies of various subgroups of the public school student population defined by race/ethnicity, parents' education level, and gender. These results are summarized in the table on page 8.

<sup>4</sup> Ina V.S. Mullis, John A. Dossey, Jay R. Campbell, Claudia A. Gentile, Christine O'Sullivan, and Andrew S. Latham. *NAEP 1992 Trends in Academic Progress*. (Washington, DC: National Center for Education Statistics, 1994).

***Race/Ethnicity***

*1994, Public School Students.* The average reading proficiency of White students in Guam public schools was not significantly different from that of Black, Asian, or Pacific Islander students but was higher than that of Hispanic students.

*1992 vs 1994, Public School Students.* There was no significant change in the average reading proficiency of White, Black, or Hispanic public school students in Guam from 1992 to 1994.

***Parents' Education Level***

*1994, Public School Students.* Public school students in Guam reporting that at least one parent graduated from college demonstrated an average reading proficiency which did not differ significantly from that of students who reported that at least one parent had some education after high school or they did not know their parents' education level but was higher than that of students who reported that at least one parent graduated from high school or neither parent graduated from high school.

*1992 vs 1994, Public School Students.* The average proficiency of public school students in Guam who reported that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level did not change significantly between 1992 and 1994.

***Gender***

*1994, Public School Students.* In public schools in Guam, girls exhibited an average reading proficiency which was higher than that of boys.

*1992 vs 1994, Public School Students.* In Guam public schools, the average reading proficiency for boys did not change significantly from 1992 to 1994. Similarly, the average proficiency for girls did not change significantly from 1992 to 1994.



1994 Trial State Assessment

### Fourth-Grade Public School Students' Average Reading Proficiency by Subpopulation

		1992	1994
		<b>Proficiency</b>	
<b>RACE/ETHNICITY</b>			
White	Guam	195 (3.1)	192 (4.2)
	Nation	223 (1.3)	223 (1.3)
Black	Guam	166 (5.5)	171 (8.0)
	Nation	192 (1.6)	186 (1.7) <
Hispanic	Guam	165 (2.9)	171 (2.3)
	Nation	199 (2.2)	188 (2.7) <
Asian	Guam	--- (---)	180 (6.0)
	Nation	--- (---)	231 (6.1)
Pacific Islander	Guam	--- (---)	183 (1.3)
	Nation	--- (---)	216 (5.9)
<b>PARENTS' EDUCATION</b>			
College graduate	Guam	183 (2.1)	185 (1.8)
	Nation	223 (1.6)	222 (1.4)
Some educ after HS	Guam	192 (4.9)	189 (4.3)
	Nation	221 (2.4)	222 (2.2)
HS graduate	Guam	182 (3.2)	176 (2.6)
	Nation	211 (1.8)	206 (1.9)
HS non-graduate	Guam	175 (5.4)	164 (4.8)
	Nation	197 (2.7)	188 (3.5)
I don't know	Guam	182 (2.0)	181 (1.6)
	Nation	209 (1.3)	204 (1.3)
<b>GENDER</b>			
Male	Guam	175 (1.9)	172 (1.4)
	Nation	211 (1.3)	207 (1.3)
Female	Guam	190 (1.5)	190 (1.7)
	Nation	219 (1.1)	218 (1.2)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

The NAEP "purpose for reading" scales range from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

**Reading Performance of Non-Public School Students**

The 1994 Trial State Assessment marks the first time that non-public school students were assessed at the state level. Therefore, separate non-public school results can be reported for Guam. Also, results based on a combined sample of public and non-public school students can be presented. The following table shows the distribution of overall reading proficiency for the non-public school and combined populations. The corresponding public school student results can be found in the table on page 3.

**Non-Public School Students**

The average reading proficiency of fourth-grade students in non-public schools in Guam was 213. This average was lower than that of non-public school students across the nation (231).

**Public and Non-Public School Student Comparison**

The average reading proficiency of fourth-grade students in non-public schools in Guam was higher than the average for public school students (213 for non-public and 181 for public). For the nation, the average reading proficiency for non-public school students was higher than that of their public school counterparts (231 for non-public and 212 for public).

**1994, Public and Non-Public School Students Combined**

The average reading proficiency of grade 4 students from Guam was 186. This average was lower than that of students across the nation (214). The lowest performing 10 percent of fourth graders from Guam had proficiencies at or below 130 while the top 10 percent had proficiencies at or above 240. The lowest performing 10 percent of students across the nation had proficiencies at or below 159 while the top 10 percent had proficiencies at or above 263.



**Distribution of Reading Proficiency for Fourth-Grade Students, Non-Public and Combined Schools**

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>1994 Non-Public</b>						
Guam	213 (2.3)	163 (2.8)	188 (2.6)	214 (2.6)	239 (2.1)	262 (4.1)
Nation	231 (2.5)	188 (4.2)	211 (2.5)	233 (2.3)	254 (1.9)	272 (2.7)
<b>1994 Combined</b>						
Guam	186 (1.0)	130 (1.7)	157 (1.6)	188 (1.3)	215 (1.0)	240 (1.7)
Nation	214 (1.0)	159 (1.6)	189 (1.2)	219 (1.1)	243 (1.1)	263 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

### **A Context for Understanding Students' Reading Proficiency in Public Schools**

Information on the reading performance of students in Guam can be better understood and used for improving instruction and setting policy when supplemented with contextual information about schools, teachers, and students.

To gather contextual information, the fourth-grade students participating in the 1994 Trial State Assessment, their reading teachers, and the principals or other administrators in their schools were asked to complete questionnaires on policies, instruction, and programs. The student, teacher, and school data help to describe some of the current practices and emphases in reading education, illuminate some of the factors that appear to be related to fourth-grade public-school students' reading proficiency, and provide an educational context for understanding information on student achievement. Highlights of the results for the public-school students in Guam are as follows:

#### **CURRICULUM COVERAGE AND INSTRUCTIONAL EMPHASIS**

- In Guam in 1994, average reading proficiency was similar for students regardless of how much time their reading teachers spent on reading instruction on a typical day.
- According to the public school administrators in Guam, in 1994, 100 percent of the fourth-grade students were in schools where reading was identified as receiving special emphasis. This percentage was larger than that of students across the country (85 percent).
- In 1994, according to their reading teachers, 5 percent of the students in public schools in Guam were typically taught reading in a class that was grouped by reading ability. The prevalence of ability grouping was higher across the nation (22 percent).

#### **DELIVERY OF READING INSTRUCTION**

- In Guam, 26 percent of the fourth-grade students had reading teachers who used children's newspapers and/or magazines at least once a week; 49 percent of the students had reading teachers who used reading kits at least once a week; 81 percent had reading teachers who used computer software for reading instruction at least once a week; 79 percent of the students had reading teachers who used a variety of books at least once a week; and, finally, 84 percent of the students had reading teachers who used materials from other subject areas at least once a week.



- According to the Guam reading teachers, 63 percent of the students were asked to discuss new or difficult vocabulary almost every day. This percentage did not differ significantly from that of students across the nation (62 percent).
- According to their reading teachers, the percentage of students in Guam who were asked to talk with each other almost every day about what they have read (45 percent) was greater than that of students across the nation, where 34 percent of the students were asked to do this activity almost every day.
- According to the reading teachers in Guam, 15 percent of the students were asked to do a group activity or project about what they have read almost every day. This figure was greater than that of students across the nation (5 percent).

#### EDUCATIONAL BACKGROUND OF TEACHERS

- The percentage of students who were being taught by reading teachers who reported having at least a master's or education specialist's degree in Guam (32 percent) was smaller than that for the nation (41 percent).
- More than half of the students (57 percent) had reading teachers who had the highest level of teaching certification that is recognized by Guam. This was smaller than the figure for the nation, where 65 percent of the students were taught by reading teachers who were certified at the highest level available in their states.
- In Guam, 24 percent of the students were being taught reading by teachers who had an undergraduate major in English, reading, and/or language arts. This was greater than the percentage of students across the nation who were being taught by reading teachers with the same major (20 percent).

## HOME FACTORS

- In Guam, 19 percent of the students reported having four types of reading materials (a newspaper, an encyclopedia, 25 or more books, and magazines) in the home. This figure was lower than that for the nation (36 percent). Students in Guam who had all four of these types of materials in the home showed an average reading proficiency (197) which was higher than that of students with zero to two types of materials (174).
- In 1994 in Guam, 31 percent of the students discussed with friends or family what they read almost every day. This percentage was somewhat greater than that of students across the nation (28 percent). The proficiency of students in Guam who discussed what they read with friends or family almost every day (181) did not differ significantly from that of students who had discussions with friends or family less than weekly (181).
- About one quarter of the fourth-grade students (23 percent) watched six hours or more of television each day. This was not significantly different from the figure for the nation, where 22 percent of the students watched this much television. Average reading proficiency in Guam was higher for students who spent four to five hours watching television than for students who watched television six hours or more each day.

### **Comparisons of Overall Reading Proficiency in Guam with Other States**

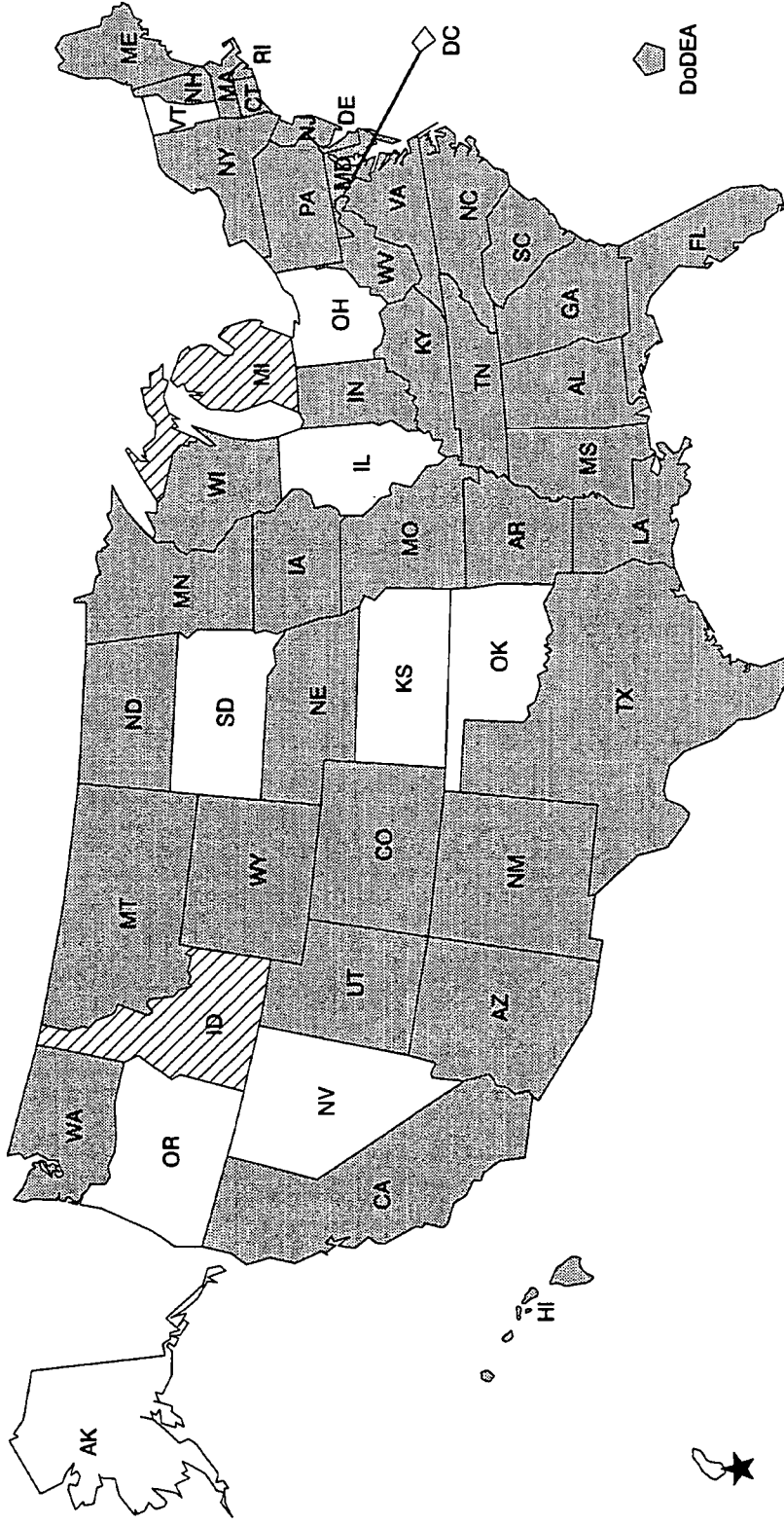
The map on the following page provides a method for making appropriate comparisons of the overall public school reading proficiency in Guam with that in other states (including the Department of Defense Education Activity [DoDEA] Overseas Schools) that participated in the NAEP 1994 Trial State Assessment Program. The different shadings of the states on the map show whether the average overall proficiency of public school students in the other states was statistically different from or not statistically different from that of public school students in Guam ("Target State"). States in black have a significantly lower average public school proficiency than does Guam. States with a dark-gray shading have a significantly higher average public school proficiency than does Guam. States with a light-gray shading have an average public school proficiency that does not differ significantly from that of Guam. The significance tests are based on a Bonferroni procedure for multiple comparisons that holds the probability of erroneously declaring the means of any two states to be different, when they are not, to no more than five percent. Two states — Idaho and Michigan — did not meet minimum school participation guidelines for public schools. Another jurisdiction — Washington, DC — withdrew from the Trial State Assessment after the data collection phase. Therefore, these three jurisdictions are not included in the comparisons depicted on the map on the following page.

# The 1994 Trial State Assessment

## Comparisons of Overall Reading Proficiency

### Grade 4 Public Schools

#### Guam



- ★ Target state
- State has statistically significantly higher average proficiency than target state
- No statistically significant difference from target state
- State has statistically significantly lower average proficiency than target state
- State did not meet minimum participation rate guidelines
- State did not participate (Washington DC declined to release 1994 results)

## OVERVIEW

For over 25 years, the National Assessment of Educational Progress (NAEP) has been the nation's primary indicator of student achievement, reporting on what students know and can do in various school subject areas at grades 4, 8, and 12. With legislation passed by Congress in 1988, NAEP's mission of providing dependable and comprehensive information about educational progress in the United States was expanded to involve a voluntary state-by-state assessment on a trial basis.

Consequently, the 1990 NAEP program included a Trial State Assessment Program in which public school students in 37 states, the District of Columbia, and two territories were assessed in eighth-grade mathematics.<sup>5</sup> Building on this initial effort, the 1992 NAEP program included a Trial State Assessment Program in fourth-grade reading and fourth- and eighth-grade mathematics, with public school students assessed in 41 states, the District of Columbia, and two territories.<sup>6</sup>

The continuation of NAEP's Trial State Assessment Program in 1994 was authorized by additional legislation that enlarged the state-by-state assessment to include non-public school students:

*The National Assessment shall conduct in 1994 . . . a trial reading assessment for the 4th grade, in states that wish to participate, with the purpose of determining whether such assessments yield valid and reliable State representative data. (Section 406(i)(2)(C)(i) of the General Education Provisions Act, as amended by Pub. L. 103-33 (U.S.C. 1221e-1(a)(2)(B)(iii)))*

*The National Assessment shall include in each sample assessment . . . students in public and private schools in a manner that ensures comparability with the national sample. (Section 406(i)(2)(C)(i) of the General Education Provisions Act, as amended by Pub. L. 103-33 (U.S.C. 1221e-1(a)(2)(B)(iii)))*

<sup>5</sup> For a summary of the 1990 program, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States*. (Washington, DC: National Center for Education Statistics, 1991).

<sup>6</sup> For a summary of the 1992 assessment of reading, see Ina V.S. Mullis, Jay R. Campbell, and Alan E. Farstrup. *The NAEP 1992 Reading Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993). For a summary of the 1992 assessment of mathematics, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *NAEP 1992 Mathematics Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993).

In addition to the state assessment program in reading at grade 4, the 1994 NAEP involved national assessments of reading, geography, and history at grades 4, 8, and 12.

The 1994 Trial State Assessment Program was conducted in February 1994 with the following 44 participants:

Alabama	Louisiana	North Dakota
Arizona	Maine	Pennsylvania
Arkansas	Maryland	Rhode Island
California	Massachusetts	South Carolina
Colorado	Michigan	Tennessee
Connecticut	Minnesota	Texas
Delaware	Mississippi	Utah
District of Columbia	Missouri	Virginia
Florida	Montana	Washington
Georgia	Nebraska	West Virginia
Hawaii	New Hampshire	Wisconsin
Idaho	New Jersey	Wyoming
Indiana	New Mexico	
Iowa	New York	Guam
Kentucky	North Carolina	DoDEA

Jurisdictions in italics — Montana, Washington, and the Department of Defense Education Activity (DoDEA) Overseas Schools — did not participate in the 1992 Trial State Assessment Program. Two states — Idaho and Michigan — did not meet minimum school participation guidelines for public schools. Another jurisdiction — Washington, DC — withdrew from the Trial State Assessment Program after the data collection phase. Therefore, public school results for these three jurisdictions are not reported. Three jurisdictions — Ohio, Oklahoma, and the Virgin Islands — participated in the 1992 Trial State Assessment but not in the 1994 program.

For the 1994 Trial State Assessment in reading, a combined sample of approximately 2,800 public and non-public school students was assessed in most jurisdictions. The samples were carefully designed to represent the fourth-grade populations in the states or jurisdictions. Participating jurisdictions were responsible for the administration of the assessment. For jurisdictions that participated in the 1992 Trial State Assessment Program, contractor staff monitored 25 percent of public school sessions and 50 percent of non-public school sessions. For jurisdictions that did not participate in 1992, contractor staff monitored 50 percent of both public and non-public school sessions. Monitoring efforts were part of a quality assurance program designed to ensure that sessions were conducted uniformly.

The 1992 Trial State and National Assessment programs in reading were based on a framework developed through a national consensus process that was set forth by law and called for “active participation of teachers, curriculum specialists, subject matter specialists, local school administrators, parents, and members of the general public” (Pub. L. 100-297, Part C, 1988).<sup>7</sup> This same framework served as the basis of the 1994 Trial State and National Assessment programs.

<sup>7</sup> NAEP Reading Consensus Project. *Reading Framework for the 1992 and 1994 National Assessment of Educational Progress*. (Washington, DC: National Assessment Governing Board, U.S. Department of Education, 1994).



The process of developing the framework was carried out in late 1989 and early 1990 by the Council of Chief State School Officers (CCSSO) under contract from the National Assessment Governing Board (NAGB) which is responsible for formulating policy for NAEP, including developing assessment objectives and test specifications. The framework development process included gathering input from a wide range of people in the fields of reading and assessment, such as school teachers, administrators, and state coordinators of reading and reading assessment. After thorough discussion and some amendment, the framework was adopted by NAGB in March 1990. An overview of the reading framework is provided in Appendix A.

The 1994 fourth-grade Trial State and National Assessments in reading consisted of eight sections or blocks, each 25 minutes in length. All fourth-grade students in the assessment were required to complete two blocks. Each block contained a passage or set of passages and a combination of constructed-response and multiple-choice questions. Passages selected for the assessment were drawn from authentic texts used by students in typical reading situations. Complete stories, articles, or sections of textbooks were used, rather than excerpts or abridgements. The type of question — constructed-response or multiple-choice — was determined by the objective being measured. In addition, the constructed-response questions were of two types: *short constructed-response* questions which required students to respond to a question in a few words or a few sentences and *extended constructed-response* questions which required students to respond to a question in a paragraph or more.

## This Report

This is a computer-generated report that describes the reading performance of fourth-grade students in Guam and across the nation. A separate report describes additional fourth-grade reading assessment results for the nation and the states, as well as the national results for grades 8 and 12.<sup>8</sup> This report consists of four sections:

- This Overview provides background information about the 1994 Trial State Assessment Program and a profile of the fourth-grade students in Guam.
- Part One shows the distribution of reading proficiency results for fourth-grade students in Guam and the nation.
- Part Two presents reading achievement level results for fourth graders in Guam and the nation.
- Part Three relates fourth-grade public school students' reading proficiency to contextual information about the reading policies, instruction, and home support for reading in Guam and the nation.

---

<sup>8</sup> See *NAEP 1994 Reading Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1995).

In this report, results are provided for groups of students defined by shared characteristics — race/ethnicity, parents' education level, and gender. Based on criteria described in Appendix A, 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 non-public school students, the minimum requirement is 62 students representing at least 6 different schools. However, the data for all students, regardless of whether their subgroup was reported separately, were included in computing overall results for Guam. Definitions of the subpopulations referred to in this report are presented below.

The results for Guam are based on the representative sample of students who participated in the 1994 Trial State Assessment Program. The results for the nation are based on the nationally representative samples of students who were assessed in January through March as part of the national NAEP program. Using the national results from the 1994 national NAEP program is necessary because of the voluntary nature of the Trial State Assessment Program. Since not every state participated in the program, the aggregated data across states did not necessarily provide representative national results. Specific details on the samples and analysis procedures used can be found in the *Technical Report of the 1994 NAEP Trial State Assessment Program in Reading*.<sup>9</sup>

### **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). In 1992, the question posed to students regarding their racial/ethnic background had one Asian/Pacific Islander category. In 1994, these were two distinct response options for the question. Consequently, data and trend results for the separate categories are not available for the 1992 sample.

### **Parents' Education Level**

Students were asked to indicate the extent of schooling for each of their parents — did not finish high school, graduated from high school, had 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.

### **Gender**

Results are reported separately for males and females.

---

<sup>9</sup> *Technical Report of the NAEP 1994 Trial State Assessment Program in Reading*. (Washington, DC: National Center for Education Statistics, 1995).

### **Non-Public Schools**

Samples for the 1994 Trial State Assessment Program were expanded to include students attending non-public schools (Catholic schools and other religious and private schools) in addition to the public school students. The expanded coverage was instituted for the first time in 1994. Samples for the 1990 and 1992 Trial State Assessment Programs had been restricted to public school students only. For those jurisdictions meeting pre-established participation rate standards (see Appendix A), separate results are reported for non-public schools and for the combined public and non-public school samples. The combined sample also contains students attending Bureau of Indian Affairs (BIA) schools and domestic Department of Defense schools. These two categories of schools are not included in either the public or non-public school samples. The DoDEA Overseas Schools are considered public schools and are reported as a separate jurisdiction for the first time in 1994.

### **Guidelines for Analysis and Reporting**

This report describes reading performance for fourth graders and compares the results for various groups of students within that population — for example, those who have certain demographic characteristics or who responded to a specific background question in a particular way. The report examines the results for individual demographic groups and individual background questions. It does not include an analysis of the relationships among combinations of these subpopulations or background questions.

Because the percentages of students in these subpopulations and their average proficiencies are based on samples — rather than on the entire population of fourth graders in a jurisdiction — the numbers reported are necessarily *estimates*. As such, they are subject to a measure of uncertainty, reflected in the *standard error* of the estimate. When the percentages or average proficiencies of certain groups are compared, it is essential to take the standard error into account, rather than to rely solely on observed similarities or differences. Therefore, the comparisons discussed in this report are based on *statistical tests* that consider both the magnitude of the difference between the means or percentages and the standard errors of those statistics.

The statistical tests determine whether the evidence — based on the data from the groups in the *sample* — is strong enough to conclude that the means or percentages are really different for those groups in the *population*. If the evidence is strong (i.e., the difference is statistically significant), the report describes the group means or percentages as being different (e.g., one group performed *higher than* or *lower than* another group) — regardless of whether the sample means or sample percentages appear to be about the same or not. If the evidence is not sufficiently strong (i.e., the difference is not statistically significant), the means or percentages are described as being *not significantly different* — again, regardless of whether the sample means or sample percentages appear to be about the same or widely discrepant. The reader is cautioned to rely on the results of the statistical tests — rather than on the apparent magnitude of the difference between sample means or percentages — to determine whether those sample differences are likely to represent actual differences between the groups in the population. The statistical tests and Bonferroni procedure, which is used when more than two groups are being compared, are discussed in greater detail in Appendix A.

In addition, some of the percentages reported in the text of the report are given quantitative descriptions (e.g., relatively few, about half, almost all, etc.). The descriptive phrases used and the rules used to select them are also described in Appendix A.

Finally, in several places in this report, results (mean proficiencies and percentages) are reported in the text for combined groups of students. For example, in the text, the proficiency of students in the combined group who reported reading for fun once or twice a month or never or hardly ever is given and compared to the group who reported reading for fun almost every day. However, the table that accompanies that text reports percentages and proficiencies separately for the four groups (almost every day, once or twice a week, once or twice a month, and never or hardly ever). The combined group proficiencies reported in the text and used in all statistical tests are based on *unrounded* estimates (i.e., estimates calculated to several decimal places) of the proficiencies for each group. The percentages shown in the tables are *rounded* to integers. Thus, percentages may not always add up to 100 percent due to rounding. Also, the percentage for a combined group (reported in the text) may differ slightly from the sum of the separate percentages (presented in the tables) for each of the groups that were combined. Therefore, if statistical tests were to be conducted based on the rounded numbers in the tables, the results might not be consonant with the results of the statistical tests that are reported in the text (based on unrounded numbers).

## Profile of Guam

### Fourth-Grade School and Student Characteristics

Table O.1 provides a profile of the demographic characteristics of the fourth-grade students in Guam and the nation. This profile is based on data collected from the students and schools participating in the 1992 and 1994 Trial State and National Assessments. As described earlier, the state data and the national data are drawn from separate samples.

### Schools and Students Assessed

Table O.2 summarizes participation data for schools and students sampled in Guam for both the 1992 and 1994 Trial State Assessments.<sup>10</sup> In Guam, 21 public schools and 9 non-public schools participated in the 1994 fourth-grade reading assessment. These numbers include participating substitute schools that were selected to replace some of the nonparticipating schools from the original sample. The weighted school participation rate after substitution in 1994 was 100 percent for public schools and 96 percent for non-public schools, which means that the fourth-grade students in this sample were **directly** representative of 100 percent and 96 percent of all the fourth-grade public and non-public school students in Guam, respectively.

In each school, a random sample of students was selected to participate in the assessment. In 1994, as estimated by the sample, 7 percent of the fourth-grade public school population and 0 percent of the non-public school population were classified as Limited English Proficient (LEP), while 5 percent in public schools and 0 percent in non-public schools had an Individualized Education Plan (IEP). An IEP is a plan, written for a student who has been determined to be eligible for special education, that typically sets forth goals and objectives for the student and describes a program of activities and/or related services necessary to achieve the goals and objectives. Students with disabilities may be categorized as IEP.

---

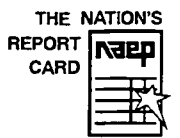
<sup>10</sup> For a detailed discussion of the NCES guidelines for sample participation, see *School and Student Participation Rates for the Reading Assessment and Guidelines for Participation*. (Washington, DC: National Center for Education Statistics, 1994); or see Appendix B of the *Technical Report of the NAEP 1994 Trial State Assessment Program in Reading*. (Washington, DC: National Center for Education Statistics, 1995).

Schools were permitted to exclude certain students from the assessment, provided that certain criteria were met. To be excluded, a student had to be categorized as Limited English Proficient or had to have an Individualized Education Plan *and* (in either case) be judged incapable of participating in the assessment. The intent was to assess all selected students; therefore, all selected students who were capable of participating in the assessment should have been assessed. However, schools were allowed to exclude those students who, in the judgment of school staff, could not meaningfully participate. The NAEP guidelines for exclusion are intended to assure uniformity of exclusion criteria from school to school. Note that some LEP and IEP students were deemed eligible to participate and not excluded from the assessment. The students in Guam who were excluded from the assessment because they were categorized as LEP or had an IEP represented 9 percent of the public school population and 0 percent of the non-public school population in grade 4.

In Guam, 2,203 public school and 372 non-public school fourth-grade students were assessed in 1994. The weighted **student** participation rate was 96 percent for public schools and 98 percent for non-public schools. This means that the sample of fourth-grade students who took part in the assessment was **directly** representative of 96 percent of the **eligible** public school student population and 98 percent of the **eligible** non-public school student population in **participating** schools in Guam (that is, all students from the population represented by the participating schools, minus those students excluded from the assessment).

The **overall** weighted response rate (school rate times student rate) was 96 percent and 94 percent for public and non-public schools, respectively. This means that the sample of students who participated in the assessment was **directly** representative of 96 percent of the eligible fourth-grade public school population and 94 percent of the eligible fourth-grade non-public school population in Guam.





1994 Trial State Assessment

TABLE O.1

*Profile of Fourth-Grade Students in Guam and the Nation*

		1992	1994		
		Public	Public	Non-Public	Combined
<b>Demographic Subgroups</b>		<b>Percentage</b>			
<b>RACE/ETHNICITY</b>					
<b>Guam</b>	White	12 (0.8)	9 (0.6) <	9 (1.8)	9 (0.6)
	Black	4 (0.4)	4 (0.4)	2 (0.8)	3 (0.3)
	Hispanic	18 (0.8)	18 (0.9)	12 (1.4)	17 (0.8)
	Asian	— (—)	3 (0.4)	16 (2.0)	5 (0.4)
	Pacific Islander	— (—)	64 (0.9)	61 (2.1)	64 (0.8)
	American Indian	1 (0.3)	1 (0.2)	1 (0.4)	1 (0.2)
<b>Nation</b>	White	69 (0.5)	68 (0.5)	76 (3.8)	69 (0.2)
	Black	17 (0.4)	16 (0.4)	8 (2.9)	15 (0.2)
	Hispanic	10 (0.3)	12 (0.3) >	11 (1.6)	12 (0.2)
	Asian	— (—)	2 (0.2)	2 (0.5)	2 (0.2)
	Pacific Islander	— (—)	1 (0.1)	1 (0.4)	1 (0.1)
	American Indian	2 (0.3)	2 (0.1)	1 (0.6)	2 (0.2)
<b>PARENTS' EDUCATION</b>					
<b>Guam</b>	Graduated college	32 (1.2)	36 (1.1)	49 (3.0)	38 (1.1)
	Some education after high school	6 (0.5)	6 (0.5)	5 (1.1)	6 (0.4)
	Graduated high school	14 (0.8)	13 (0.7)	6 (1.3)	12 (0.6)
	Did not finish high school	5 (0.4)	5 (0.5)	2 (0.7)	4 (0.4)
	I don't know	44 (1.2)	41 (0.9)	36 (3.2)	40 (0.9)
<b>Nation</b>	Graduated college	37 (1.1)	41 (1.0)	55 (2.5)	42 (0.9)
	Some education after high school	9 (0.6)	8 (0.5)	7 (0.8)	8 (0.5)
	Graduated high school	13 (0.6)	13 (0.5)	9 (1.0)	13 (0.5)
	Did not finish high school	4 (0.4)	4 (0.4)	2 (0.6)	4 (0.3)
	I don't know	37 (1.1)	34 (0.9)	28 (1.8)	34 (0.8)
<b>GENDER</b>					
<b>Guam</b>	Male	52 (1.2)	51 (1.2)	51 (2.2)	51 (1.1)
	Female	48 (1.2)	49 (1.2)	49 (2.2)	49 (1.1)
<b>Nation</b>	Male	51 (0.7)	51 (0.7)	50 (1.7)	51 (0.7)
	Female	49 (0.7)	49 (0.7)	50 (1.7)	49 (0.7)

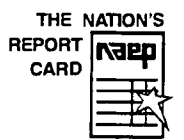
--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. The percentages for Race/Ethnicity may not add to 100 percent because some students categorized themselves as "Other."

Following standard practice in survey research, the results presented in this report were produced using calculations which incorporate adjustments for the nonparticipating schools and students. Hence, the final results derived from the sample provide estimates of the reading proficiency and achievement for the full population of eligible public and non-public school fourth-grade students in Guam. However, these nonparticipation adjustments may not adequately compensate for the missing sample schools and students in instances where nonparticipation rates are large.

In order to guard against potential nonparticipation bias in published results, NCES has established minimum participation levels necessary for the publication of 1994 Trial State Assessment results. NCES also established additional guidelines that address four ways in which nonparticipation bias could be introduced into a jurisdiction's published results (see Appendix A). In 1994, Guam met all established NCES participation rate guidelines for both public and nonpublic schools. Hence, results for both types of schools are included in this report.

In the analysis of student data and reporting of results, nonresponse weighting adjustments have been made at both the school and student level, with the aim of making the sample of participating students as representative as possible of the entire eligible fourth-grade population. For details of the nonresponse weighting adjustment procedures, see the *Technical Report of the NAEP 1994 Trial State Assessment Program in Reading*.



1994 Trial State Assessment

**TABLE O.2***Profile of the Fourth-Grade Population Assessed in Guam*

	1992	1994	
	Public	Public	Non-Public
<b>SCHOOL PARTICIPATION</b>			
Weighted school participation rate before substitution	100%	100%	96%
Weighted school participation rate after substitution	100%	100%	96%
Number of schools originally sampled	21	21	11
Number of schools not eligible	0	0	0
Number of schools in original sample participating	21	21	9
Number of substitute schools provided	0	0	0
Number of substitute schools participating	0	0	0
Total number of participating schools	21	21	9
<b>STUDENT PARTICIPATION</b>			
Weighted student participation rate after makeups	94%	96%	98%
Number of students selected to participate in the assessment	2,402	2,625	390
Number of students withdrawn from the assessment	94	108	10
Percentage of students who were of Limited English Proficiency	6%	7%	0%
Percentage of students excluded from the assessment due to Limited English Proficiency	3%	4%	0%
Percentage of students who had an Individualized Education Plan	6%	5%	0%
Percentage of students excluded from the assessment due to Individualized Education Plan Status	4%	5%	0%
Number of students to be assessed	2,154	2,297	380
Number of students assessed	2,029	2,203	372
<b>Overall weighted response rate</b>	<b>94%</b>	<b>96%</b>	<b>94%</b>

In 1992 and 1994 for both public and non-public schools in Guam, the Trial State Assessment was based on all eligible schools (i.e., there was no sampling of schools).

## PART ONE

## The Reading Proficiency of Fourth-Grade Students in Guam

Reading involves the interaction between and among a reader, a text, and a situation.<sup>11</sup> Thus, students' reading comprehension is influenced by the type of material read and the specific purposes for reading. The 1994 Trial State Assessment Program considered students' proficiency in situations that involved reading different kinds of materials for different purposes. The fourth-grade reading assessment measured two global purposes for reading — **reading for literary experience** and **reading to gain information**.<sup>12</sup> Students' proficiency on each of the two purposes for reading was summarized on separate NAEP reading scales (one for each purpose), which range from 0 to 500. In addition, results for an overall reading scale reflecting average proficiency across the two purposes for reading are also presented. The overall reading scale also ranges from 0 to 500.

This part of the report contains two chapters that describe the reading proficiency of fourth-grade students in Guam. Chapter 1 compares the overall reading proficiency of public school students in Guam to the nation. It also presents the students' average proficiency for the two purposes for reading. Chapter 2 summarizes reading proficiency for subpopulations of public school students defined by race/ethnicity, parents' education level, and gender. The second chapter also provides the combined results for public and non-public school students, as well as the results for only non-public school students.<sup>13</sup>

---

<sup>11</sup> J.A. Dole, G.G. Duffy, L.R. Roehler, and P.D. Pearson. "Moving from the Old to the New: Research on Reading Comprehension Instruction," in *Review of Educational Research*, 61. (1991). pp. 239-264.

<sup>12</sup> The eighth- and twelfth-grade national NAEP reading assessments also measured a third purpose for reading — reading to perform a task.

<sup>13</sup> Due to the relatively small sample size for the non-public school students, results are not reported by subpopulation.

# CHAPTER 1

## Students' Reading Proficiency

In 1994, renewed emphasis was placed on national education goals when Congress reauthorized the *Elementary and Secondary Education Act (ESEA)* and enacted the *Goals 2000: Educate America Act*. A concern for higher academic standards is evident in the *ESEA's* efforts to provide programs to improve America's schools. *Goals 2000* reasserts the importance of establishing and meeting rigorous goals in the education of our nation's students — *All students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our nation's modern economy*. Reading ability can be viewed as an enabling skill for reaching these goals. Therefore, concern about attaining these goals and, more specifically, about the reading abilities of our nation's students has increased because recent NAEP results appear to indicate that many students of all ages have difficulty reading thoughtfully.<sup>14</sup>

The *NAEP Reading Framework* underlying both the 1992 and 1994 assessments views reading as a dynamic, complex interaction between and among the reader, the text, and the context of the reading experience. Readers, for example, bring to the reading process their prior knowledge about a topic, their reasons for reading, their individual reading skills and strategies, and their understanding of differences in text structures.<sup>15</sup>

The texts used in the NAEP reading assessment are representative of common reading demands. Because reading performance varies in response to texts and contexts, the NAEP assessment measured students' abilities to read different types of materials for different purposes. The texts were selected from naturally-occurring sources that are typically available to children in and out of school. Students in grade 4 were asked to respond to literary and informational texts, corresponding with the two purposes for reading assessed at grade 4 — reading for literary experience and reading to gain information.

<sup>14</sup> Ina V.S. Mullis, Jay R. Campbell, and Alan E. Farstrup. *The NAEP 1992 Reading Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993); Ina V.S. Mullis, John A. Dossey, Jay R. Campbell, Claudia A. Gentile, Christine O'Sullivan, and Andrew S. Latham. *NAEP 1992 Trends in Academic Progress*. (Washington, DC: National Center for Education Statistics, 1994).

<sup>15</sup> J.A. Langer. "The Process of Understanding: Reading for Literary and Informational Purposes," in *Research in the Teaching of English*, 24. (1990). pp. 229-260; NAEP Reading Consensus Project. *Reading Framework for the 1992 and 1994 National Assessment of Educational Progress*. (Washington, DC: National Assessment Governing Board, U.S. Department of Education, 1994).



Reading for literary experience typically involves the reader in vicarious experiences through the story's characters or considerations of how the author explores human events. Literary texts include short stories, poems, and folktales that engage the reader in a variety of ways, not the least of which is reading for fun. Reading to gain information may involve seeking to learn about a topic or to search for specific information. Informational texts include selections from textbooks, magazines, encyclopedias, and other written sources whose purpose is to increase the reader's knowledge. Differences between narrative and informational text typically require students to use different skills and strategies.

In addition to having fourth graders demonstrate their ability to read for two different purposes, the assessment asked students to build, extend, and examine meaning from four stances or types of interactions with the text.

#### ***Initial Understanding***

Students are asked to provide the overall or general meaning of the selection. This includes first impressions, main points, or themes.

#### ***Developing an Interpretation***

Students are asked to extend the ideas in the text by making inferences and connections. This includes making connections between cause and effect, analyzing the motives of characters, and drawing conclusions.

#### ***Personal Response***

Students are asked to make explicit connections between the ideas in the text and their own background knowledge and experiences. This includes comparing story characters with themselves or people they know, or indicating whether they found a passage useful or interesting.

#### ***Critical Stance***

Students are asked to consider the text objectively. This includes identifying how the author crafted a text with stylistic devices such as mood and tone.

These stances are not considered hierarchical or completely independent of each other. Rather, they are viewed as recursive processes that take place throughout reading and represent different dimensions of the reader's understanding. They provide a frame for generating assessment questions and considering student performance at all levels. All students at all levels should be able to respond to reading selections from all of these stances. What varies with students' developmental and proficiency levels is the amount of prompting or support needed to elicit their responses, the complexity of the texts to which they can respond, and the sophistication of their answers.

This chapter describes the reading proficiency of Guam's public school fourth graders in 1994 and the comparative results of their national counterparts. In addition, this chapter provides a comparison of reading performance in 1992 and 1994 for Guam's fourth graders attending public schools.



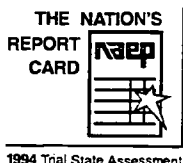
Table 1.1 shows the distribution of reading proficiency of fourth-grade students attending public schools in Guam and the nation.

**1994, Public School Students**

The average reading proficiency of fourth-grade public school students in Guam on the NAEP reading scale was 181. This average was lower than that of students across the nation (212).<sup>16</sup> The lowest performing 10 percent of public school fourth graders in Guam had proficiencies at or below 126 while the top 10 percent had proficiencies at or above 234. In public schools across the nation, the lowest performing 10 percent of fourth graders had proficiencies at or below 156; the top performing 10 percent of students had proficiencies at or above 261.

**1992 vs 1994, Public School Students**

There was no significant change in the average proficiency of fourth-grade public school students in Guam from 1992 to 1994 (182 in 1992 and 181 in 1994). During the same period, there was no significant change in the average proficiency of fourth-grade public school students across the nation (215 in 1992 and 212 in 1994).



**TABLE 1.1**

***Distribution of Reading Proficiency for Fourth-Grade Public School Students***

	<b>Average Proficiency</b>	<b>10th Percentile</b>	<b>25th Percentile</b>	<b>50th Percentile</b>	<b>75th Percentile</b>	<b>90th Percentile</b>
<b>1992</b>						
Guam	182 (-1.4)	128 (-2.4)	155 (-3.0)	185 (-1.6)	211 (-1.3)	233 (-2.0)
Nation	215 (-1.0)	168 (-1.9)	192 (-1.0)	217 (-1.7)	240 (-1.3)	259 (-2.3)
<b>1994</b>						
Guam	181 (-1.2)	126 (-1.3)	154 (-1.6)	183 (-1.6)	211 (-1.4)	234 (-1.2)
Nation	212 (-1.1)	156 (-2.1) <	187 (-1.5) <	217 (-1.2)	241 (-1.2)	261 (-1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

<sup>16</sup> Differences reported as significant are statistically different at the 95 percent confidence level. This means that with 95 percent confidence there is a real difference in the average reading proficiency between the two populations of interest.

## Proficiency According to Purpose for Reading

As previously indicated, the questions in the 1994 Trial State Assessment Program covered two purposes for reading at grade 4 — reading for literary experience and reading to gain information. Table 1.2 provides results for Guam and the nation according to each reading purpose.

### 1994, Public School Students

The proficiency of public school students in Guam in reading for literary experience (184) was lower than that of students across the nation (214). Similarly, in reading to gain information, the proficiency of public school students in Guam (177) was lower than that of students across the nation (210).

### 1992 vs 1994, Public School Students

Guam's public school fourth graders showed no significant change from 1992 to 1994 in reading for literary experience. Similarly, in reading to gain information, they exhibited no significant change from 1992 to 1994.



**TABLE 1.2**

### *Distribution of Reading Proficiency for Fourth-Grade Public School Students According to Purpose for Reading*

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>Reading for Literary Experience</b>						
<b>1992 Public</b>						
Guam	187 (1.6)	129 (4.1)	159 (2.4)	190 (1.8)	218 (1.6)	241 (1.5)
Nation	217 (1.0)	169 (1.7)	194 (1.2)	219 (1.1)	242 (1.3)	262 (1.6)
<b>1994 Public</b>						
Guam	184 (1.3)	124 (3.3)	154 (2.5)	187 (1.6)	216 (1.5)	242 (1.4)
Nation	214 (1.2)	157 (2.2) <	189 (1.6)	219 (1.1)	244 (1.2)	264 (1.3)
<b>Reading to Gain Information</b>						
<b>1992 Public</b>						
Guam	176 (1.3)	120 (3.4)	149 (2.1)	179 (1.6)	206 (1.7)	230 (2.5)
Nation	212 (1.2)	162 (1.8)	187 (1.4)	214 (1.2)	238 (1.3)	259 (1.9)
<b>1994 Public</b>						
Guam	177 (1.2)	122 (1.2)	150 (1.3)	178 (1.8)	207 (1.3)	231 (1.8)
Nation	210 (1.2)	151 (2.0) <	183 (1.4)	214 (1.5)	240 (1.5)	262 (1.4)

The NAEP "purpose for reading" scales range from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## CHAPTER 2

### Reading Proficiency of Fourth-Grade Students by Subpopulations

The overall reading proficiency of students across the country presented in the previous chapter provides a global view of the state of reading performance. However, it is also important to look more closely at the performance of subgroups and to consider how different groups of children are progressing in reading. This information can provide educators, policy makers, and concerned citizens with important knowledge about how well students from different backgrounds and with different experiences are developing as readers.

The 1994 Trial State Assessment Program provides additional information about the reading proficiency of important subpopulations by reporting on the performance of various subgroups of the public school student population defined by race/ethnicity, parents' education level, and gender. In addition, because non-public school students were sampled in the 1994 Trial State Assessment Program, the results for non-public school students as well as those for the combined public and non-public school populations are reported.

#### Race/Ethnicity

The 1994 Trial State Assessment Program results for different racial/ethnic groups can be compared when the number of schools and students in a racial/ethnic group is of sufficient size to be reliably reported. (See Appendix A for details.) Table 2.1 presents reading proficiency results for White, Black, Hispanic, Asian, and Pacific Islander fourth-grade public school students from Guam. Trend results are not reported for Asian or Pacific Islander students because of changes to the 1994 questions about students' racial and ethnic backgrounds.

##### *1994, Public School Students*

As shown in Table 2.1, the average reading proficiency of White students in Guam public schools was not significantly different from that of Black, Asian, or Pacific Islander students but was higher than that of Hispanic students.

## 1992 vs 1994, Public School Students

There was no significant change in the average reading proficiency of White, Black, or Hispanic public school students in Guam from 1992 to 1994.



1994 Trial State Assessment

TABLE 2.1

*Distribution of Reading Proficiency for Fourth-Grade Public School Students by Race/Ethnicity*

		Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>White</b>							
1992	Guam	195 (3.1)	139 (8.9)	166 (6.5)	200 (3.4)	226 (2.2)	245 (8.1)
	Nation	223 (1.3)	180 (2.3)	202 (1.4)	225 (1.6)	246 (1.3)	264 (1.6)
1994	Guam	192 (4.2)	136 (14.9)	162 (6.0)	196 (4.8)	224 (7.8)	245 (7.8)
	Nation	223 (1.3)	175 (2.3)	201 (1.7)	226 (1.4)	247 (1.1)	266 (2.4)
<b>Black</b>							
1992	Guam	166 (5.5)	107 (7.3)	132 (10.9)	164 (7.7)	197 (24.1)	226 (7.8)
	Nation	192 (1.6)	148 (3.5)	169 (3.0)	193 (2.0)	215 (2.6)	235 (2.2)
1994	Guam	171 (8.0)	115 (14.0)	145 (15.8)	174 (7.9)	202 (7.3)	225 (11.5)
	Nation	186 (1.7) <	135 (3.1)	160 (1.9)	187 (1.9)	213 (2.2)	234 (2.3)
<b>Hispanic</b>							
1992	Guam	165 (2.9)	106 (12.7)	134 (4.0)	167 (4.7)	197 (3.9)	223 (9.5)
	Nation	199 (2.2)	151 (4.2)	175 (2.4)	200 (3.7)	225 (3.9)	245 (2.4)
1994	Guam	171 (2.3)	116 (5.6)	143 (2.9)	172 (3.8)	202 (6.7)	224 (3.3)
	Nation	188 (2.7) <	134 (4.7)	160 (3.5) <	189 (4.2)	217 (3.5)	242 (3.6)
<b>Asian</b>							
1992	Guam	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
	Nation	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
1994	Guam	180 (6.0)	120 (4.6)	148 (10.6)	184 (6.1)	212 (8.3)	235 (10.1)
	Nation	231 (6.1)	180 (5.4)	211 (10.0)	233 (3.7)	257 (7.7)	274 (5.0)
<b>Pacific Islander</b>							
1992	Guam	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
	Nation	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
1994	Guam	183 (1.3)	130 (2.4)	156 (2.2)	185 (1.5)	211 (1.5)	233 (1.4)
	Nation	216 (5.9)	151 (11.5)	192 (10.4)	224 (4.7)	244 (4.5)	261 (27.1)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Parents' Education Level

Previous NAEP findings have shown that students who report their parents are better educated tend to have higher reading proficiency.<sup>17</sup> Table 2.2 shows the results for fourth-grade public school students reporting that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level. Note that a substantial percentage of fourth graders indicated that they did not know their parents' education level. Furthermore, research suggests that some fourth graders' reports on parents' education level are almost certainly not accurate descriptions of their parents' actual education levels.<sup>18</sup> Such considerations should be kept in mind when interpreting fourth grade proficiency results for different parental education levels.

### *1994, Public School Students*

As shown in Table 2.2, public school students in Guam reporting that at least one parent graduated from college demonstrated an average reading proficiency which did not differ significantly from that of students who reported that at least one parent had some education after high school or they did not know their parents' education level but was higher than that of students who reported that at least one parent graduated from high school or neither parent graduated from high school.

### *1992 vs 1994, Public School Students*

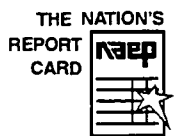
The average proficiency of public school students in Guam who reported that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level did not change significantly between 1992 and 1994.

---

<sup>17</sup> Ina V.S. Mullis, Jay R. Campbell, and Alan E. Farstrup. *The NAEP 1992 Reading Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993.)

<sup>18</sup> E. Dianne Looker. "Accuracy of Proxy Reports of Parental Status Characteristics," in *Sociology of Education*, 62(4). (1989). pp. 257-276.





1994 Trial State Assessment

TABLE 2.2

*Distribution of Reading Proficiency for Fourth-Grade Public School Students by Parents' Level of Education*

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>College graduate</b>						
1992 Guam	183 (2.1)	127 (4.2)	156 (3.9)	186 (2.0)	213 (4.3)	236 (2.6)
Nation	223 (1.6)	175 (3.5)	200 (2.1)	226 (2.1)	249 (1.4)	267 (2.4)
1994 Guam	185 (1.8)	129 (3.6)	156 (3.1)	186 (2.3)	213 (1.3)	238 (2.4)
Nation	222 (1.4)	168 (1.9)	199 (1.4)	227 (1.7)	249 (1.8)	269 (1.6)
<b>Some education after HS</b>						
1992 Guam	192 (4.9)	134 (6.6)	164 (7.3)	196 (7.1)	222 (3.4)	239 (4.8)
Nation	221 (2.4)	177 (9.0)	201 (3.3)	223 (2.9)	245 (3.6)	264 (7.5)
1994 Guam	189 (4.3)	127 (8.8)	161 (4.7)	193 (9.5)	222 (4.8)	248 (5.5)
Nation	222 (2.2)	171 (9.6)	199 (4.3)	226 (3.9)	248 (3.1)	266 (3.9)
<b>High school graduate</b>						
1992 Guam	182 (3.2)	127 (16.0)	155 (7.2)	186 (5.2)	212 (5.2)	235 (5.8)
Nation	211 (1.8)	165 (1.6)	190 (2.8)	214 (2.6)	234 (2.6)	252 (2.8)
1994 Guam	176 (2.6)	118 (6.6)	146 (7.1)	178 (2.4)	207 (3.4)	230 (4.8)
Nation	206 (1.9)	149 (3.0) <	181 (2.6)	212 (0.8)	235 (2.4)	255 (4.0)
<b>High school non-graduate</b>						
1992 Guam	175 (5.4)	121 (11.0)	149 (4.9)	177 (3.4)	203 (8.5)	223 (19.7)
Nation	197 (2.7)	154 (5.7)	175 (7.2)	199 (3.1)	221 (7.9)	241 (5.1)
1994 Guam	164 (4.8)	111 (7.5)	140 (7.5)	166 (8.9)	191 (5.7)	213 (5.5)
Nation	188 (3.5)	137 (7.3)	162 (8.8)	188 (2.9)	216 (4.3)	236 (4.3)
<b>I don't know</b>						
1992 Guam	182 (2.0)	129 (2.8)	156 (4.9)	184 (2.8)	210 (1.8)	230 (2.4)
Nation	209 (1.3)	163 (1.9)	187 (1.8)	212 (1.5)	232 (1.7)	251 (2.2)
1994 Guam	181 (1.6)	129 (1.9)	155 (3.7)	183 (1.7)	209 (1.4)	231 (2.2)
Nation	204 (1.3)	150 (3.1) <	179 (2.2)	208 (1.1)	234 (1.6)	253 (1.9)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.



## Gender

In general, NAEP reading assessment results for males and females support numerous studies that have revealed gender differences favoring females in reading.<sup>19</sup> As shown in Table 2.3, the 1994 Trial State Assessment Program results for Guam are consistent with those general findings.

### *1994, Public School Students*

In public schools in Guam, girls exhibited an average reading proficiency which was higher than that of boys.

### *1992 vs 1994, Public School Students*

In Guam public schools, the average reading proficiency for boys did not change significantly from 1992 to 1994. Similarly, the average proficiency for girls did not change significantly from 1992 to 1994.



1994 Trial State Assessment

**TABLE 2.3**

### *Distribution of Reading Proficiency for Fourth-Grade Public School Students by Gender*

		Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>Male</b>							
1992	Guam	175 (.9)	120 (.4)	148 (.2)	178 (.8)	205 (.5)	227 (.4)
	Nation	211 (1.3)	163 (2.1)	188 (1.9)	213 (1.4)	237 (2.0)	256 (2.4)
1994	Guam	172 (.4)	119 (.4)	145 (2.0)	174 (2.0)	202 (1.7)	225 (5.2)
	Nation	207 (1.3)	149 (1.8) <	181 (1.0) <	211 (1.8)	237 (1.2)	257 (1.9)
<b>Female</b>							
1992	Guam	190 (1.5)	138 (2.9)	165 (3.3)	192 (2.7)	218 (2.7)	239 (3.1)
	Nation	219 (1.1)	173 (2.1)	197 (2.0)	221 (1.1)	243 (1.6)	262 (1.7)
1994	Guam	190 (1.7)	136 (3.4)	164 (2.6)	192 (2.3)	218 (4.2)	241 (2.7)
	Nation	218 (1.2)	165 (1.6) <	194 (2.0)	222 (2.3)	245 (1.4)	264 (2.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

<sup>19</sup> Ian Plewis. "Pupils' Progress in Reading and Mathematics During Primary School: Associations with Ethnic Group and Sex." in *Educational Researcher*, 33. (1991). pp. 133-140; Gita Z. Wilder and Kristin Powell. *Sex Differences in Test Performance: A Survey of the Literature*. (New York: College Entrance Examination Board, 1989).

## Proficiency According to Purpose for Reading

Table 2.4 provides a summary of results according to each of the two purposes for reading by race/ethnicity, parents' education level, and gender for public school students.



**TABLE 2.4**

*Fourth-Grade Public School Students' Average Reading Proficiency According to Purpose for Reading by Subpopulation*

		Reading for Literary Experience		Reading to Gain Information	
		1992	1994	1992	1994
		<b>Proficiency</b>			
<b>RACE/ETHNICITY</b>					
White	Guam	200 (3.1)	195 (4.6)	188 (3.4)	188 (4.1)
	Nation	225 (1.3)	224 (1.4)	221 (1.6)	220 (1.4)
Black	Guam	159 (7.0)	177 (9.3)	174 (5.5)	163 (8.2)
	Nation	195 (1.6)	190 (2.1)	188 (1.9)	181 (1.6) <
Hispanic	Guam	173 (3.3)	172 (2.9)	156 (2.8)	169 (1.9) >
	Nation	204 (2.5)	191 (2.8) <	193 (2.2)	185 (2.7)
Asian	Guam	--- (---)	182 (6.3)	--- (---)	177 (6.2)
	Nation	--- (---)	230 (5.4)	--- (---)	232 (7.5)
Pacific Islander	Guam	--- (---)	186 (1.4)	--- (---)	178 (1.5)
	Nation	--- (---)	219 (6.2)	--- (---)	212 (7.4)
<b>PARENTS' EDUCATION</b>					
College graduate	Guam	186 (2.5)	188 (2.0)	179 (2.2)	180 (2.1)
	Nation	225 (1.6)	224 (1.5)	221 (1.7)	220 (1.4)
Some educ after HS	Guam	199 (5.0)	195 (5.2)	183 (5.7)	183 (5.8)
	Nation	224 (2.8)	224 (2.4)	218 (2.2)	218 (2.5)
HS graduate	Guam	189 (4.5)	178 (3.4)	174 (3.9)	173 (2.9)
	Nation	214 (2.0)	208 (2.1)	207 (2.0)	205 (2.0)
HS non-graduate	Guam	179 (6.0)	160 (9.0)	171 (5.2)	170 (4.8)
	Nation	202 (3.0)	189 (3.4) <	192 (2.7)	186 (4.4)
I don't know	Guam	187 (2.0)	184 (2.0)	175 (2.2)	177 (1.9)
	Nation	212 (1.3)	207 (1.3)	206 (1.5)	201 (1.5)
<b>GENDER</b>					
Male	Guam	180 (2.1)	174 (1.5)	169 (1.8)	170 (1.5)
	Nation	213 (1.5)	208 (1.4) <	209 (1.5)	206 (1.5)
Female	Guam	195 (1.8)	194 (1.9)	184 (1.7)	184 (1.6)
	Nation	222 (1.0)	221 (1.3)	215 (1.4)	214 (1.2)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

The NAEP "purpose for reading" scales range from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Reading Proficiency of Non-Public School Students

The 1994 Trial State Assessment Program marks the first time that non-public school students were assessed at the state level. Therefore, separate non-public school results can be reported for Guam. Also, results based on a combined sample of public and non-public school students can be presented. Trend results are not presented for non-public school students because they were not included in the 1992 samples. Table 2.5 shows the distribution of overall reading proficiency for non-public school and combined populations in Guam and the nation. The corresponding results for public school students are presented in Table 1.1.

### *1994, Non-Public School Students*

The average reading proficiency of fourth-grade students in non-public schools in Guam was 213. This average was lower than that of non-public school students across the nation (231).

### *Public and Non-Public School Student Comparison*

The average reading proficiency of fourth-grade students in non-public schools in Guam was higher than the average for public school students (213 for non-public and 181 for public). For the nation, the average reading proficiency for non-public school students was higher than that of their public school counterparts (231 for non-public and 212 for public).

### *1994, Public and Non-Public School Students Combined*

The average reading proficiency of grade 4 students from Guam was 186. This average was lower than that of students across the nation (214). The lowest performing 10 percent of fourth graders from Guam had proficiencies at or below 130 while the top 10 percent had proficiencies at or above 240. The lowest performing 10 percent of students across the nation had proficiencies at or below 159 while the top 10 percent had proficiencies at or above 263.



1994 Trial State Assessment

**TABLE 2.5**

### *Distribution of Reading Proficiency for Fourth-Grade Students, Non-Public and Combined Schools*

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>1994 Non-Public</b>						
Guam	213 (2.3)	163 (2.8)	188 (2.6)	214 (2.6)	239 (2.1)	262 (4.1)
Nation	231 (2.5)	188 (4.2)	211 (2.5)	233 (2.3)	254 (1.9)	272 (2.7)
<b>1994 Combined</b>						
Guam	186 (1.0)	130 (1.7)	157 (1.6)	188 (1.3)	215 (1.0)	240 (1.7)
Nation	214 (1.0)	159 (1.6)	189 (1.2)	219 (1.1)	243 (1.1)	263 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

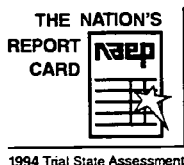
Table 2.6 presents proficiency by purpose for reading for both the non-public school and combined populations. The corresponding public school student results can be found in Table 1.2.

**1994, Non-Public School Students**

The proficiency of non-public school students in Guam in reading for literary experience (216) was lower than that of students across the nation (233). Similarly, in reading to gain information, the proficiency of Guam's non-public school students (210) was lower than that of students across the nation (229).

**1994, Public and Non-Public School Students Combined**

The proficiency of Guam students in reading for literary experience (189) was lower than that of students across the nation (216). Similarly, in reading to gain information, the proficiency of students in Guam (182) was lower than that of students across the nation (212).



**TABLE 2.6**

***Distribution of Reading Proficiency for Fourth-Grade Students According to Purpose for Reading, Non-Public and Combined Schools***

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
<b>Reading for Literary Experience</b>						
<b>1994 Non-Public</b>						
Guam	216 (2.1)	163 (3.5)	191 (4.0)	218 (4.4)	244 (3.1)	267 (5.4)
Nation	233 (2.5)	189 (4.7)	212 (3.1)	234 (2.1)	256 (2.9)	275 (1.8)
<b>1994 Combined</b>						
Guam	189 (1.1)	127 (2.2)	158 (2.4)	192 (1.2)	221 (1.6)	247 (2.0)
Nation	216 (1.1)	160 (1.6)	191 (1.2)	221 (1.2)	245 (1.4)	265 (1.2)
<b>Reading to Gain Information</b>						
<b>1994 Non-Public</b>						
Guam	210 (2.8)	157 (5.8)	183 (3.6)	209 (3.1)	237 (4.6)	262 (6.6)
Nation	229 (2.6)	183 (7.3)	207 (3.0)	230 (3.1)	253 (2.6)	273 (2.8)
<b>1994 Combined</b>						
Guam	182 (1.1)	126 (1.4)	154 (1.4)	183 (1.1)	212 (1.2)	237 (2.1)
Nation	212 (1.0)	154 (2.3)	185 (1.8)	216 (1.1)	242 (1.0)	263 (1.4)

The NAEP "purpose for reading" scales range from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

## PART TWO

## Reading Achievement Levels

While providing information about what students can do in reading is essential for understanding the current state of reading performance, it is also important to determine whether students' present performance is adequate. Knowing what students *can do* is made even more relevant by also looking at what students *should be able to do*. For that reason, the National Assessment Governing Board (NAGB) has provided NAEP with achievement levels in reading that set standards for performance in reading at grades 4, 8, and 12.

This report presents data using the student achievement levels as authorized by the NAEP legislation and adopted by the National Assessment Governing Board (NAGB).<sup>20</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 are placed on the traditional NAEP scale. For each grade, the results divide the scale into four ranges — *Basic, Proficient, and Advanced*, as well as the region *below Basic*.

Initiated in 1990, the levels have been used to report the national and state results in mathematics in 1990 and 1992, as well as in reading in 1992 and 1994. The reading achievement levels were developed by American College Testing (ACT) under contract with NAGB. While setting student achievement levels on the National Assessment is relatively new and developing, the achievement levels are consistent with recent education reform efforts. Some state and local jurisdictions are also developing standards and reporting their test results using them.<sup>21</sup>

---

<sup>20</sup> P.L. 103-382. Improving America's Schools Act of 1994.

<sup>21</sup> States such as Kentucky, Maryland, Colorado, Connecticut, and North Carolina all have standard-setting initiatives resulting in student achievement levels.



Despite the commitment to standards-based reporting of NAEP data, the transition is incomplete. There have been some critical reviews and congressionally mandated evaluations that cast doubt on the interpretability of achievement levels and also on the applicability of the underlying technical methodology used to develop them. These studies were conducted by the General Accounting Office (GAO)<sup>22</sup> and the National Academy of Education (NAE).<sup>23</sup> Their findings question, for example, the application of the Angoff method for large scale assessments like NAEP, given the significant modifications required to accommodate the complexity of the NAEP item structure and the multiple cutpoints. They conclude that discretion should be used in making particular inferences about what students at each level actually know and can do. In addition, there were concerns that the proportion of students at certain levels, but particularly at the advanced levels, may be underestimated.

On the other hand, the Angoff procedure is the most widely documented, researched, and frequently used method in the standard-setting field. Many well-known experts support the use of a modified-Angoff method on NAEP. Several critics of the NAE studies,<sup>24</sup> for example, have reaffirmed the integrity of the process employed by the Board and have concluded that the weight of the empirical evidence presented does not support the NAE's conclusions about achievement levels or the use of the modified-Angoff process. In addition, the Council of Chief State School Officers' advisory panel of state assessment directors, fully aware of the NAE's conclusions, supported the use of the achievement levels to report the 1994 reading results.<sup>25</sup>

Taken together, the results of the various studies suggest the need for further research and development. To that end, ACT, the NAGB contractor, recently conducted a study in anticipation of the 1994 NAEP reading reports. The study sought to examine the congruence between the reading assessment framework and the descriptions of reading performance embodied in the levels.<sup>26</sup> Two different methodologies were used: (1) evaluation of the achievement level descriptions *via* statistical item mapping, and (2) evaluation of the achievement level descriptions *via* judgmental item mapping. It was the consensus of the participants that the reading achievement level descriptions were, in general, consistent with the framework and the 1994 NAEP reading assessment results. However, minor modifications were suggested by the study panelists. These modifications were incorporated into the 1994 achievement level descriptions.

---

<sup>22</sup> General Accounting Office. *Educational Achievement Standards: NAGB's Approach Yields Misleading Interpretations*. (Washington, DC, 1993).

<sup>23</sup> National Academy of Education. *Setting Performance Standards for Student Achievement*. (Stanford, CA: National Academy of Education, 1993).

<sup>24</sup> 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); G. Cizak. *Reactions to the National Academy of Education Report*. (Washington, DC: National Assessment Governing Board, 1993); M. Kane. *Comments on the NAE Evaluation of the NAGB Achievement Levels*. (Washington, DC: National Assessment Governing Board, 1993).

<sup>25</sup> Education Information Advisory Committee of the Council of Chief State School Officers. *A Resolution of the Education Information Advisory Committee*. (Alexandria, VA, 1994).

<sup>26</sup> American College Testing. *Technical Report on the 1992 NAEP Reading Re-visit Study*. (Iowa City, IA: American College Testing, 1995).



It should be noted that the ACT study did not address the applicability of the modified-Angoff procedure for the 1994 reading assessment. Nor did it focus on the reasonableness of actual achievement level cut scores. However, NAGB continues to explore new and innovative methodologies for standard setting for NAEP. In addition, proceedings from a standard-setting conference held in the fall of 1994, jointly sponsored by NCES and NAGB, are due to be released in the fall of 1995. Given the array of nationally known experts in attendance, the findings will undoubtedly provide additional insight into this issue.

In sum, 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. However, standards-based reporting for NAEP data is still in transition. The NAEP legislation states that the student achievement levels shall be “. . . developed through a national consensus approach . . . used on a developmental basis, . . . and updated as appropriate.” It requires that their developmental status be clearly stated in NAEP reports. 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.

Part Two of this report focuses on results of the 1994 Trial State Assessment Program in terms of the NAGB achievement levels. Chapter 3 provides an overview of the achievement level descriptors. In addition, the percentages of public school students in Guam and across the nation who performed at or above each of the achievement levels in 1994 and 1992 are presented. Chapter 4 expands on these results by presenting achievement level data for subgroups — race/ethnicity, level of parents' education, and gender. Chapter 4 also presents results for students in non-public schools and combined results for both public and non-public school students.

## CHAPTER 3

### Students' Reading Achievement

The most recent reauthorization of the National Assessment Governing Board (NAGB) continues the Board's responsibilities to set policy for NAEP and to "develop appropriate student achievement levels for each age and grade in subject areas tested" (Pub. L. 103-382). As a result, students' reading proficiencies presented in the previous section can be viewed in the context of established goals for performance. This report next presents results based on the National Assessment Governing Board's goals for students' achievement on the NAEP reading scale.<sup>27</sup>

Achievement goals are determined through collective judgments about how students *should* perform. These judgments are associated with specific points on the NAEP scale that serve to identify boundaries between levels of achievement for each grade — Basic, Proficient, and Advanced. Performance at the Basic level denotes partial mastery of the knowledge and skills that are fundamental for proficient work. The central level, called Proficient, represents solid academic performance. Students reaching this level demonstrate competency over challenging subject matter. Performance at the Advanced level signifies superior performance beyond proficient grade-level mastery. In this report, the proportion of students attaining the three achievement levels is presented for both the 1994 and 1992 assessments.

Definitions of the three levels of reading achievement are given in Figure 3.1. Examples of questions at the achievement levels are also provided. The reading passages that accompany these questions can be found in Appendix B. It should be noted that constructed-response questions occur at all levels of reading achievement.

---

<sup>27</sup> Appendix C briefly describes the process of gathering expert judgments about Basic, Proficient, and Advanced performance — as defined by NAGB policy — on each reading item, combining the various judgments on the various items and mapping them onto the scale, and setting the scale score cutpoints for reporting purposes based on these levels.



FIGURE 3.1

### *Levels of Reading Achievement at Grade 4*

The following achievement level descriptions focus on the interaction of the reader, the text, and the context. They provide some specific examples of reading behaviors that should be familiar to most readers of this document. The specific examples are not inclusive; their purpose is to help clarify and differentiate what readers performing at each achievement level *should be able to do*. While a number of other reading achievement indicators exist at every level, space and efficiency preclude an exhaustive listing. The achievement levels are cumulative from Basic to Proficient to Advanced. One level builds on the previous levels such that knowledge at the Proficient level presumes mastery of the Basic level, and knowledge at the Advanced level presumes mastery of both the Basic and Proficient levels.

<b>BASIC LEVEL</b> (208)	Fourth-grade students performing at the <b>Basic level</b> <i>should demonstrate an understanding of the overall meaning of what they read. When reading texts 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.</i>
---------------------------------	--

For example, when reading **literary text**, Basic-level students should be able to tell what the story is generally about — providing details to support their understanding — and be able to connect aspects of the stories to their own experiences.

When reading **informational text**, Basic-level fourth graders should be able to tell what the selection is generally about or identify the purpose for reading it; provide details to support their understanding; and connect ideas from the text to their background knowledge and experiences.

<b>PROFICIENT LEVEL</b> (238)	Fourth-grade students performing at the <b>Proficient level</b> <i>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.</i>
--------------------------------------	--

Specifically, when reading **literary text**, Proficient-level fourth graders should be able to summarize the story, draw conclusions about the characters or plot, and recognize relationships such as cause and effect.

When reading **informational text**, Proficient-level students should be able to summarize the information and identify the author's intent or purpose. They should be able to draw reasonable conclusions from the text, recognize relationships such as cause and effect or similarities and differences, and identify the meaning of the selection's key concepts.

<b>ADVANCED LEVEL</b> (268)	Fourth-grade students performing at the <b>Advanced level</b> <i>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.</i>
------------------------------------	--

Specifically, when reading **literary text**, Advanced-level students should be able to make generalizations about the point of the story and extend its meaning by integrating personal and other reading experiences with the ideas suggested by the text. They should be able to identify literary devices such as figurative language.

When reading **informational text**, Advanced-level fourth graders should be able to explain the author's intent by using supporting material from the text. They should be able to make critical judgments of the text (including its form and content) and explain their judgments clearly.



**FIGURE 3.1 (continued)**

*Levels of Reading Achievement at Grade 4*

The following questions were selected as examples of the types of questions that students at each of the three achievement levels can respond to effectively. The example questions were selected from the 1992 or 1994 NAEP reading assessments. These questions are based on the stories “Sybil Sounds the Alarm” and “Hungry Spider and the Turtle,” which are shown in their entirety in Appendix B. “Sybil Sounds the Alarm” is a fictional account of a historical event that describes the courage of a young colonial girl in riding her horse to warn of the approaching British army. “Hungry Spider and the Turtle” is a fable that presents a humorous portrayal of two characters and the jokes they play on each other. Both stories were used to assess reading for literary experience.

For the multiple-choice questions, the correct answer is marked with an asterisk. For the constructed-response questions, a description of acceptable answers is provided. Also shown are the national overall percent correct and the percent correct for the students performing within the interval of the indicated level. For example, students with an average reading proficiency in the range 208-237 are in the Basic *interval*: at or above the cutpoint for the Basic level and below the cutpoint for the Proficient level.

Samples of student responses to these and other constructed-response questions in the NAEP reading assessment appear in the *Reading Assessment Redesigned*<sup>28</sup> report which provides an in-depth look at the assessment materials and tasks. Also, a presentation of sample student responses can be found in the *1994 NAEP Reading Report Card*.

<b>BASIC LEVEL</b> Example Question		<i>Sybil Sounds the Alarm</i>	
Sybil’s father thought that she  A. was obedient but forgetful * B. was courageous and a good rider C. could lead the troops against the British D. could easily become angry			
1992 Overall Percentage Correct		1992 Conditional Percentage Correct for Basic Interval	
Nation	71 (1.4)	Nation	75 (2.4)

<sup>28</sup> J.A. Langer, J.R. Campbell, S.B. Neuman, I.V.S. Mullis, H.R. Persky, and P.L. Donahue. *Reading Assessment Redesigned*. (Washington, DC: National Center for Education Statistics, 1995).



1994 Trial State Assessment

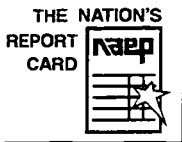
**FIGURE 3.1 (continued)**

*Levels of Reading Achievement at Grade 4*

<b>BASIC LEVEL</b> Example Question		<i>Hungry Spider and the Turtle</i>	
<p>Who do you think would make a better friend, Spider or Turtle? Explain why.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<p>Acceptable responses indicated which character would make a better friend and provided appropriate evidence from the story in support of the selection.</p>			
1994 Overall Percentage Acceptable		1994 Conditional Percentage Acceptable for Basic Interval	
Nation	62 (1.4)	Nation	68 (2.3)

<b>PROFICIENT LEVEL</b> Example Question		<i>Sybil Sounds the Alarm</i>	
<p>The information about the statue and stamp helps to show that</p> <p>* A. people today recognize and respect Sybil's bravery</p> <p>B. people were surprised that George Washington honored her</p> <p>C. the author included minor details</p> <p>D. heroes are honored more now than they were then</p>			
1992 Overall Percentage Correct		1992 Conditional Percentage Correct for Proficient Interval	
Nation	62 (1.5)	Nation	87 (3.4)





1994 Trial State Assessment

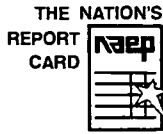
**FIGURE 3.1 (continued)**

*Levels of Reading Achievement at Grade 4*

<b>PROFICIENT LEVEL</b>		<i>Hungry Spider and the Turtle</i>	
Example Question			
<p>What do Turtle's actions at Spider's house tell you about Turtle?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<p>Acceptable responses provided a description of Turtle that is consistent with the traits portrayed by the character in a specific part of the story.</p>			
1994 Overall Percentage Acceptable		1994 Conditional Percentage Acceptable for Proficient Interval	
Nation	41 (1.4)	Nation	64 (3.0)

<b>ADVANCED LEVEL</b>		<i>Sybil Sounds the Alarm</i>	
Example Question			
<p>How does the author show the excitement and danger of Sybil's ride?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<p>Acceptable responses described a specific element of the author's portrayal of Sybil that contributed to the story's atmosphere and tone.</p>			
1992 Overall Percentage Acceptable		1992 Conditional Percentage Acceptable for Advanced Interval	
Nation	44 (1.7)	Nation	83 (4.9)





1994 Trial State Assessment

**FIGURE 3.1 (continued)**

*Levels of Reading Achievement at Grade 4*

ADVANCED LEVEL Example Question		<i>Hungry Spider and the Turtle</i>	
<p>Think about Spider and Turtle in the story. Pick someone you know, have read about, or have seen in the movies or on television and explain how that person is like either Spider or Turtle.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<p>Responses that were rated as <i>Essential or better</i> demonstrated adequate understanding of the character of Spider or Turtle by providing any story-supported character trait and relating or linking that trait to a real world person or character.</p>			
1994 Overall Percentage Essential or Better		1994 Conditional Percentage Essential or Better for Advanced Interval	
Nation	29 (1.3)	Nation	73 (8.6)

Table 3.1 provides the percentage of fourth-grade public school students at or above each achievement level, as well as the percentage of students below the Basic level.

**1994, Public School Students**

The percentage of public school students in Guam who were at or above the Proficient level (8 percent) was lower than that of students across the nation (28 percent).

**1992 vs 1994, Public School Students**

From 1992 to 1994, there was no significant change in the percentage of public school students in Guam who attained the Proficient level (8 percent in 1992 and 8 percent in 1994). Similarly, there was no significant change in the percentage of public school students across the nation who attained the Proficient level (27 percent in 1992 and 28 percent in 1994).



**TABLE 3.1**

**Levels of Fourth-Grade Public School Students' Reading Achievement**

	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
	<b>Percentage</b>			
<b>1992 Public</b>				
Guam	1 (0.3)	8 (0.8)	28 (1.2)	72 (1.2)
Nation	6 (0.6)	27 (1.3)	60 (1.1)	40 (1.1)
<b>1994 Public</b>				
Guam	1 (0.3)	8 (0.8)	27 (1.1)	73 (1.1)
Nation	7 (0.7)	28 (1.2)	59 (1.1)	41 (1.1)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

Many students in Guam were unable to meet the Proficient achievement level that represents solid academic performance in reading. Educators and policy makers will need to look to many sources of information and opinion for explanations of these levels of achievement. Among the possible explanations, several factors should not be overlooked. First, students may not be learning enough in school to reach the achievement levels. In 1983, the National Commission on Excellence in Education warned that “the educational foundations of our society are being eroded by a rising tide of mediocrity that threatens our very future.”<sup>29</sup> In 1990, the president and the governors committed the nation to six goals for education, the third of which called for American students to “leave grades four, eight and twelve having demonstrated competency in challenging subject matter.”<sup>30</sup> Many political leaders of this nation continue to express dissatisfaction with the performance of American students. These NAEP findings confirm that a great many American students are not yet performing at high levels.

Second, some students may not be reaching the higher achievement levels because schools may not be teaching the elements of reading that are included on the NAEP assessment, and because the assessment may not be covering some elements of reading included in the school curriculum. No assessment or test can cover all the different areas of reading that are taught in school. The content coverage of the NAEP reading assessment was set by a consensus approach. Teachers, curriculum specialists, subject matter specialists, local school administrators, parents, and members of the general public actively participated in deciding what are the most important elements of reading to be included in the assessment and for students to learn.<sup>31</sup>

Third, the Basic, Proficient, and Advanced achievement levels reflect high standards for the 1994 NAEP reading scale. The establishment of achievement levels depends on securing a set of informed judgments of expectations for student educational achievement and on summarizing the individual ratings into collective judgments. These expectations reflect the Board’s policy definitions, which require that students at the central, Proficient level demonstrate “competency over challenging subject matter.” The resulting standards are rigorous.

As measures of performance, both average proficiency scores and percentages of students who score at or above the critical achievement levels on the NAEP scale provide a valuable overall depiction of students’ reading ability.

---

<sup>29</sup> National Commission on Excellence in Education. *A Nation at Risk*. (Washington, DC: U.S. Department of Education, 1983). In 1988, then-Secretary Bennett reported that the “precipitous downward slide of previous decades has been arrested, and we have begun the long climb back to reasonable standards.” (p. 1 in *American Education: Making it Work*. (Washington, DC: U.S. Department of Education, 1988).).

<sup>30</sup> U.S. Department of Education. *America 2000: An Education Strategy*. (Washington, DC: U.S. Department of Education, 1991).

<sup>31</sup> NAEP Reading Consensus Project. *Reading Framework for the 1992 and 1994 National Assessment of Educational Progress*. (Washington, DC: National Assessment Governing Board, U.S. Department of Education, 1994).

**CHAPTER 4****Reading Achievement of Fourth-Grade Students by Subpopulations**

Assessment results repeatedly show differences in performance for subpopulations of students.<sup>32</sup> This chapter presents achievement level results for subgroups of public school students from Guam defined by race/ethnicity, level of parents' education, and gender. Also, results are presented for non-public school students and for the combined public and non-public school populations.

**Race/Ethnicity**

Table 4.1 provides the percentage of public school students at or above each of the three achievement levels and also the percentage below the Basic level for White, Black, Hispanic, Asian, and Pacific Islander students. Trend results are not reported for Asian or Pacific Islander students because of changes to the 1994 questions about students' racial and ethnic backgrounds.

***1994, Public School Students***

In 1994, the percentage of White students in Guam who attained the Proficient level was not significantly different from that of Black, Asian, or Pacific Islander students but was greater than that of Hispanic students.

***1992 vs 1994, Public School Students***

There was no significant change between 1992 and 1994 in the percentage of White, Black, and Hispanic public school students in Guam who performed at or above the Proficient level.

<sup>32</sup> Ina V.S. Mullis, John A. Dossey, Jay R. Campbell, Claudia A. Gentile, Christine O'Sullivan, and Andrew S. Latham. *NAEP 1992 Trends in Academic Progress*. (Washington, DC: National Center for Education Statistics, 1994).



TABLE 4.1

*Levels of Fourth-Grade Public School Students'  
 Reading Achievement by Race/Ethnicity*

		At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
		Percentage			
<b>White</b>					
1992	Guam	2 (0.9)	15 (2.1)	41 (3.8)	59 (3.8)
	Nation	8 (1.0)	33 (1.9)	70 (1.5)	30 (1.5)
1994	Guam	2 (1.7)	15 (3.4)	39 (3.9)	61 (3.9)
	Nation	9 (0.9)	35 (1.5)	69 (1.3)	31 (1.3)
<b>Black</b>					
1992	Guam	1 (1.4)	5 (2.7)	19 (5.5)	81 (5.5)
	Nation	1 (0.5)	8 (1.4)	32 (2.1)	68 (2.1)
1994	Guam	0 (0.6)	5 (3.1)	21 (5.8)	79 (5.8)
	Nation	1 (0.4)	8 (0.9)	30 (2.5)	70 (2.5)
<b>Hispanic</b>					
1992	Guam	0 (0.4)	4 (1.3)	17 (2.2)	83 (2.2)
	Nation	2 (1.0)	14 (1.8)	42 (2.1)	58 (2.1)
1994	Guam	1 (0.5)	6 (1.1)	20 (2.1)	80 (2.1)
	Nation	2 (0.7)	12 (1.6)	33 (2.6)	67 (2.6)
<b>Asian</b>					
1992	Guam	-- (--)	-- (--)	-- (--)	-- (--)
	Nation	-- (--)	-- (--)	-- (--)	-- (--)
1994	Guam	2 (2.0)	9 (4.3)	28 (7.5)	72 (7.5)
	Nation	15 (6.5)	45 (7.7)	77 (5.7)	23 (5.7)
<b>Pacific Islander</b>					
1992	Guam	-- (--)	-- (--)	-- (--)	-- (--)
	Nation	-- (--)	-- (--)	-- (--)	-- (--)
1994	Guam	1 (0.4)	8 (0.9)	28 (1.4)	72 (1.4)
	Nation	6 (4.6)	33 (5.2)	63 (8.4)	37 (8.4)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Parents' Education Level

Table 4.2 shows the reading achievement level results for fourth-grade public school students who reported that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level.

### *1994, Public School Students*

In Guam, the percentage of students reporting that at least one parent graduated from college who performed at or above the Proficient level was not significantly different from that of students who reported that at least one parent had some education after high school, at least one parent graduated from high school, or they did not know their parents' education level but was larger than that of students who reported that neither parent graduated from high school.

### *1992 vs 1994, Public School Students*

The percentage of public school students in Guam who reported that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level who attained the Proficient level did not change significantly between 1992 and 1994.





TABLE 4.2

*Levels of Fourth-Grade Public School Students'  
 Reading Achievement by Parents' Level of Education*

		At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
		Percentage			
<b>College graduate</b>					
1992	Guam	1 (0.5)	9 (1.4)	28 (2.2)	72 (2.2)
	Nation	10 (1.2)	36 (2.0)	68 (1.9)	32 (1.9)
1994	Guam	2 (0.6)	10 (1.4)	30 (1.8)	70 (1.8)
	Nation	11 (1.3)	37 (1.9)	66 (1.5)	32 (1.5)
<b>Some education after HS</b>					
1992	Guam	2 (1.4)	11 (3.9)	38 (6.5)	62 (6.5)
	Nation	8 (2.3)	32 (3.6)	66 (3.3)	32 (3.3)
1994	Guam	3 (1.8)	14 (3.2)	37 (4.9)	63 (4.9)
	Nation	9 (2.1)	36 (2.9)	68 (3.2)	32 (3.2)
<b>High school graduate</b>					
1992	Guam	1 (0.6)	9 (2.0)	28 (2.6)	72 (2.6)
	Nation	3 (1.1)	21 (2.3)	56 (2.3)	44 (2.3)
1994	Guam	0 (0.5)	7 (1.7)	24 (3.2)	76 (3.2)
	Nation	4 (1.3)	22 (2.7)	54 (2.2)	46 (2.2)
<b>High school non-graduate</b>					
1992	Guam	1 (1.1)	6 (2.8)	20 (5.4)	80 (5.4)
	Nation	1 (1.4)	11 (2.4)	38 (3.9)	62 (3.9)
1994	Guam	0 (0.0)	2 (1.6)	13 (4.2)	87 (4.2)
	Nation	1 (1.3)	9 (2.4)	32 (4.1)	68 (4.1)
<b>I don't know</b>					
1992	Guam	1 (0.3)	6 (1.2)	27 (2.1)	73 (2.1)
	Nation	3 (0.8)	20 (1.6)	54 (1.7)	46 (1.7)
1994	Guam	1 (0.3)	6 (1.1)	26 (1.7)	74 (1.7)
	Nation	4 (0.7)	21 (1.7)	51 (1.4)	49 (1.4)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation  $>$  ( $<$ ) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Gender

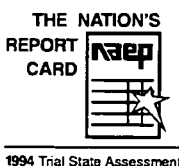
Table 4.3 provides the achievement level results by gender for fourth-grade public school students.

### *1994, Public School Students*

The percentage of males in Guam public schools who attained the Proficient level was smaller than that of females.

### *1992 vs 1994, Public School Students*

There was no significant change in the percentage of males who performed at or above the Proficient level from 1992 to 1994. Similarly, there was no significant change in the percentage of females who were at or above the Proficient level from 1992 to 1994.



**TABLE 4.3**

### *Levels of Fourth-Grade Public School Students' Reading Achievement by Gender*

		At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
		Percentage			
Male	1992 Guam	0 (0.2)	5 (1.0)	22 (1.4)	78 (1.4)
	Nation	5 (0.7)	24 (1.5)	56 (1.7)	44 (1.7)
1994	Guam	1 (0.3)	5 (0.9)	20 (1.0)	80 (1.0)
	Nation	6 (0.8)	24 (1.3)	53 (1.5)	47 (1.5)
Female	1992 Guam	1 (0.5)	11 (1.6)	33 (1.8)	67 (1.8)
	Nation	7 (0.9)	30 (1.5)	65 (1.5)	35 (1.5)
1994	Guam	2 (0.5)	11 (1.2)	35 (2.0)	65 (2.0)
	Nation	8 (0.9)	32 (1.6)	64 (1.3)	36 (1.3)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation  $>$  ( $<$ ) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Reading Achievement of Non-Public School Students

Table 4.4 provides the percentage of fourth-grade students at or above each achievement level for the non-public school and combined populations. Trend results are not presented for non-public school students because they were not included in the 1992 samples.

### *1994, Non-Public School Students*

The percentage of non-public school students in Guam who were at or above the Proficient level (26 percent) was lower than that of students across the nation (43 percent).

### *Public and Non-Public School Student Comparison*

The percentage of non-public school students in Guam who were at or above the Proficient level (26 percent) was higher than that of public school students (8 percent). For the nation, the percentage of non-public school students who attained the Proficient level (43 percent) was higher than that of their public school counterparts (28 percent).

### *1994, Public and Non-Public School Students Combined*

The percentage of students in Guam who were at or above the Proficient level (11 percent) was lower than that of students across the nation (30 percent).



1994 Trial State Assessment

**TABLE 4.4**

### *Levels of Fourth-Grade Students' Reading Achievement, Non-Public and Combined Schools*

	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
	Percentage			
<b>1994 Non-Public</b>				
Guam	7 (2.4)	26 (2.6)	57 (2.9)	43 (2.9)
Nation	19 (1.8)	43 (3.0)	77 (2.4)	23 (2.4)
<b>1994 Combined</b>				
Guam	2 (0.5)	11 (0.8)	32 (1.1)	68 (1.1)
Nation	7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

PART THREE

## **Finding a Context for Understanding Students' Reading Proficiency in Public Schools**

**I**nformation on the reading proficiency of students in Guam can be better understood and used for improving instruction and setting policy when supplemented with contextual information about schools, teachers, and students.

To gather contextual information, the fourth-grade students participating in the 1994 Trial State Assessment Program, their reading teachers, and the principals or other administrators in their schools were asked to complete questionnaires on instruction, programs, and policies. The student, teacher, and school data help to describe some of the current practices in reading education, to illuminate some of the factors that appear to be related to fourth-grade public school students' reading proficiency, and to provide an educational context for understanding information on student achievement.

It is important to note that the NAEP data cannot establish cause-and-effect links between various contextual factors and students' reading proficiency. However, the results do provide information about important relationships between the contextual factors and proficiency. Through the questionnaires administered to students, teachers, and principals, NAEP is able to provide a broad picture of educational practices prevalent in American schools and classrooms.

In order to improve and refine the NAEP questionnaires, some questions are revised and/or reformatted between assessments. Although this allows for more precise and relevant data collection, it makes the reporting of trend results on those particular questions at best difficult to interpret and at worst, impossible to accomplish. Some of the questions reported on in Chapters 5 through 7 were revised and/or reformatted for the 1994 assessment. In some cases the revisions, though relatively minor, were of sufficient magnitude to make comparisons with 1992 results difficult to interpret. For these questions, the results for both 1992 and 1994 are reported; however, no statistical comparisons were made, and changes from 1992 to 1994 are not discussed. Questions thus affected are indicated in the tables and the reader is cautioned to keep these question changes in mind when comparing 1992 and 1994 results. For other questions, substantial revisions make comparison to 1992 results unwise or impossible. For these questions, no 1992 data are reported.

Part Three consists of four chapters. Chapter 5 discusses policies and practices related to reading. Chapter 6 focuses on instructional approaches — how instruction is delivered. Chapter 7 provides information about teachers, and Chapter 8 examines students' home support for literacy.

## CHAPTER 5

### **Policies and Practices Related to Reading**

This chapter focuses on curricular and instructional content issues in Guam public schools and their relationship to students' reading proficiency. Table 5.1 provides a profile of the reading policies and practices in the public schools with fourth grades in Guam. Some of the selected results obtained from teacher and school questionnaires reveal:

- According to the public school administrators in Guam in 1994, 100 percent of the fourth-grade students were in schools where reading was identified as receiving special emphasis. This percentage was larger than that of students across the country (85 percent).
- In 1994, according to their reading teachers, 5 percent of the students in public schools in Guam were typically taught reading in a class that was grouped by reading ability. The prevalence of ability grouping was higher across the nation (22 percent).





TABLE 5.1

*Reading Policies and Practices in Fourth-Grade Public Schools*

	Guam	Nation
	Percentage	
Percentage of students in public schools that identified reading as a priority in schoolwide goals and objectives, instruction, workshops, etc.*		
1992	94 (0.1)	86 (2.8)
1994	100 (0.0)	85 (2.7)
Percentage of students in public schools who are assigned to a reading class by their ability*		
1992	44 (0.8)	34 (4.1)
1994	5 (0.4)	22 (2.9)
Percentage of students in public schools who stay with the same teacher for all academic subjects		
1992	80 (0.3)	48 (3.6)
1994	79 (0.2) >	57 (4.1)
Percentage of students in public schools who remain with one teacher for most subjects but may have a different teacher for one or two subjects		
1992	40 (0.3)	42 (3.9)
1994	21 (0.2) <	37 (4.0)
Percentage of students in public schools in which a reading curriculum specialist is available to help or advise		
1992	66 (0.9)	64 (3.2)
1994	82 (0.7) >	67 (2.9)
Percentage of students in public schools that use parents as aides in classrooms		
1992	92 (0.1)	89 (2.6)
1994	87 (0.2) <	88 (2.3)

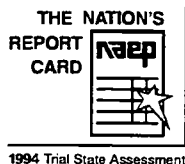
\* The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted.

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Time for Instructional Activities

To begin to place students' reading proficiency in context, it is useful to examine the extent to which fourth-grade students' reading teachers in Guam are spending their time on instructional activities. Teachers of the assessed students were asked to report on the amount of time they spent with each class for reading instruction on a typical day. Table 5.2 shows the results for public school students.<sup>33</sup>

- In 1994, the percentage of students in Guam who had reading teachers who spent 60 minutes providing reading instruction each day (34 percent) was smaller than that across the nation (44 percent).
- In Guam in 1994, average reading proficiency was similar for students regardless of how much time their reading teachers spent on reading instruction on a typical day.



**TABLE 5.2**

*Public School Teachers' Reports on Time Spent Teaching Reading*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<b>About how much time do you spend for reading instruction on a typical day?*</b>		
<b>45 minutes or less</b>		
1992	28 (1.1)	29 (3.2)
	181 (2.2)	216 (2.2)
1994	41 (1.0)	37 (2.5)
	179 (1.6)	215 (2.1)
<b>60 minutes</b>		
1992	43 (0.9)	52 (3.4)
	187 (2.0)	217 (1.8)
1994	34 (0.8)	44 (2.7)
	182 (2.1)	217 (1.8)
<b>90 minutes or more</b>		
1992	30 (1.1)	19 (1.8)
	174 (2.2)	213 (2.5)
1994	25 (1.0)	19 (1.9)
	181 (2.4)	200 (4.0)

\* The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

<sup>33</sup> For every table in the body of the report that includes estimates of average proficiency, the Data Appendix provides a corresponding table presenting the results for the three subpopulations — race/ethnicity, parents' education level, and gender — as well as by school type.

## Instructional Resources for Reading

Teachers' use of resources is obviously constrained by the availability of those resources. Thus, the assessed students' teachers were asked about the extent to which they were able to obtain all of the instructional materials and other resources they needed. From Table 5.3:

- In 1994, the percentage of fourth-grade students in public schools in Guam who were being taught by teachers who reported getting all of the resources they needed (5 percent) was smaller than the corresponding percentage of students across the nation (9 percent).
- Furthermore, in 1994, the percentage of public school students in Guam whose teachers got only some or none of the resources they needed (62 percent) was larger than that of students across the nation (35 percent).
- From 1992 to 1994, there was no significant change in the percentage of students in Guam whose teachers reported getting all of the resources they needed. There was no significant change in the percentage of students whose teachers got only some or none of the resources they needed during this same time.



TABLE 5.3

*Public School Teachers' Reports on the Availability  
 of Resources*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<i>Which of the following statements is true about how well your school system provides you with the instructional materials and other resources you need to teach your class?</i>		
<b>I get all the resources I need.</b>		
1992	4 (0.4) *** (***)	11 (1.7) 220 (3.1)
1994	5 (0.5) *** (***)	9 (1.7) 225 (3.7)
<b>I get most of the resources I need.</b>		
1992	31 (0.7) 189 (1.9)	51 (2.9) 218 (1.7)
1994	33 (0.7) 184 (1.7)	55 (2.7) 215 (1.6)
<b>I get some or none of the resources I need.</b>		
1992	65 (0.8) 179 (1.7)	39 (3.5) 213 (1.6)
1994	62 (0.8) 178 (1.7)	35 (2.7) 208 (1.8)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation  $>$  ( $<$ ) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.

## CHAPTER 6

### How Is Reading Instruction Delivered?

Effective classroom instruction can help students become thoughtful readers.<sup>34</sup> The instructional activities that students complete can also lead them to view reading in particular ways<sup>35</sup> and to focus their efforts on developing certain skills and strategies. To provide information about how instruction is delivered in Guam, fourth-grade students participating in the Trial State Assessment Program and their reading teachers were asked to report on the use of various teaching and learning activities in their reading classrooms.

### Instructional Materials for Reading

Basal reading programs are a traditional part of reading instruction in this country. They typically include a compilation of reading passages and exercises, as well as ancillary materials, such as workbooks and tests. These types of programs account for at least two-thirds of all expenditures for reading instruction and are used in more than 95 percent of all school districts through grade 6.<sup>36</sup> However, other types of reading programs may utilize trade books, such as story or informational books, that are not necessarily published for the sole purpose of reading instruction. When students encounter a variety of texts, they expand their general understanding of language, as well as their understanding of text and its underlying structures.<sup>37</sup> To provide information about instructional materials used for fourth-grade classes, students' reading teachers were asked to report about the type of materials that formed the core of their reading program. Table 6.1 provides the results.

<sup>34</sup> A.P. Sweet. *Transforming Ideas for Teaching and Learning to Read*. (Washington, DC: Office of Educational Research and Improvement, 1993).

<sup>35</sup> J.A. Dole, G.G. Duffy, L.R. Roehler, and P.D. Pearson. "Moving from the Old to the New: Research on Reading Comprehension Instruction," in *Review of Educational Research*, 61. (1991). pp. 239-264.

<sup>36</sup> Jeanne S. Chall and James R. Squire. "The Publishing Industry and Textbooks," in R. Barr, M. Kamil, P. Mosenthal, and P.D. Pearson, Eds., *Handbook of Reading Research, Volume II*. (New York, NY: Longman, 1991).

<sup>37</sup> V. J. Harris. "Literature-Based Approaches to Reading Instruction," in *Review of Research in Education*. (Washington, DC: American Educational Research Association, 1993).



1994 Trial State Assessment

TABLE 6.1

*Public School Teachers' Reports on Instructional Materials for Reading*

	Guam	Nation
<b>What type of materials form the core of your reading program?*</b>	<b>Percentage and Proficiency</b>	
<b>Primarily basal</b>		
1992	44 (0.9)	33 (2.6)
	183 (1.7)	213 (2.2)
1994	9 (0.4)	18 (2.4)
	*** (***)	208 (2.4)
<b>Primarily trade books</b>		
1992	5 (0.4)	13 (2.3)
	*** (***)	222 (4.4)
1994	20 (0.6)	20 (2.8)
	*** (***)	218 (2.9)
<b>Both basal and trade books</b>		
1992	48 (0.9)	51 (3.6)
	182 (1.7)	217 (1.4)
1994	71 (0.7)	59 (3.0)
	182 (1.5)	214 (1.7)
<b>Other</b>		
1992	4 (0.4)	3 (1.1)
	*** (***)	208 (6.3)
1994	0 (0.0)	3 (0.7)
	*** (***)	197 (6.1)

\* The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



Teachers were also asked about their use of specific types of resources that can add depth and variety to the reading program (Table 6.2). Some selected results for public school students reveal that, in 1994:

- In Guam, 26 percent of the fourth-grade students had reading teachers who used children's newspapers and/or magazines at least once a week. This percentage was not significantly different from that for the nation (30 percent).
- The percentage of Guam students who had reading teachers who used reading kits at least once a week (49 percent) was greater than that for students in the nation (21 percent).
- The percentage of students in Guam who had reading teachers who used computer software for reading instruction at least once a week (81 percent) was greater than that for the nation (24 percent).
- In Guam, 79 percent of the students had reading teachers who used a variety of books at least once a week. This figure was not significantly different from that for students across the nation (75 percent).
- The percentage of students in Guam who had reading teachers who used materials from other subject areas at least once a week (84 percent) was greater than that for the nation (69 percent).



1994 Trial State Assessment

TABLE 6.2

*Public School Teachers' Reports on Resources for Reading Instruction*

		Guam	Nation
		<b>Percentage and Proficiency</b>	
<b>How often do you use the following resources to teach reading?*</b>			
<b>Children's newspapers and/or magazines</b>			
At least once a week	1992	36 (0.9)	32 (3.2)
		186 (1.7)	218 (2.2)
	1994	26 (1.1)	30 (3.0)
		180 (2.7)	213 (2.3)
Once or twice a month	1992	37 (0.9)	32 (2.4)
		177 (2.4)	213 (2.0)
	1994	38 (0.8)	36 (2.2)
		184 (2.3)	212 (1.7)
Never or hardly ever	1992	27 (0.9)	36 (2.6)
		181 (2.6)	218 (2.1)
	1994	36 (1.0)	35 (2.8)
		176 (1.9)	214 (2.2)
<b>Reading kits</b>			
At least once a week	1992	58 (0.8)	22 (2.6)
		182 (1.7)	210 (2.5)
	1994	49 (1.1)	21 (2.5)
		181 (1.8)	206 (2.8)
Once or twice a month	1992	19 (0.7)	20 (2.4)
		*** (***)	218 (2.2)
	1994	17 (0.8)	21 (2.0)
		*** (***)	214 (1.9)
Never or hardly ever	1992	23 (0.8)	58 (3.2)
		178 (3.3)	218 (2.2)
	1994	34 (0.9)	58 (3.0)
		177 (2.5)	216 (1.5)
<b>Computer software for reading instruction</b>			
At least once a week	1992	61 (0.8)	25 (3.0)
		187 (1.7)	212 (2.4)
	1994	81 (0.9)	24 (2.3)
		180 (1.5)	211 (2.4)
Once or twice a month	1992	7 (0.6)	23 (2.7)
		*** (***)	216 (2.6)
	1994	9 (0.7)	22 (2.4)
		*** (***)	219 (2.5)
Never or hardly ever	1992	32 (0.9)	52 (3.8)
		176 (2.3)	218 (1.9)
	1994	10 (0.6)	55 (2.7)
		*** (***)	213 (1.5)
<b>A variety of books (e.g., novels, collections of poetry, nonfiction)</b>			
At least once a week	1992	63 (0.9)	65 (3.1)
		183 (1.8)	217 (1.8)
	1994	79 (0.7)	75 (2.2)
		179 (1.5)	214 (1.4)
Once or twice a month	1992	29 (0.9)	26 (3.0)
		179 (2.4)	216 (2.3)
	1994	18 (0.9)	21 (1.9)
		184 (2.8)	214 (2.4)
Never or hardly ever	1992	8 (0.5)	9 (1.5)
		*** (***)	210 (3.3)
	1994	4 (0.5)	5 (1.0)
		*** (***)	208 (3.5)

(continued on next page)



1994 Trial State Assessment

TABLE 6.2 (continued)

*Public School Teachers' Reports on Resources for Reading Instruction*

		Guam	Nation
<i>How often do you use the following resources to teach reading?*</i>		<b>Percentage and Proficiency</b>	
<b>Materials from other subject areas</b>			
At least once a week	1992	61 (1.1) 183 (1.6)	56 (2.5) 218 (1.9)
	1994	84 (0.9) 180 (1.5)	69 (2.3) 213 (1.3)
Once or twice a month	1992	31 (1.1) 180 (2.1)	30 (2.5) 213 (2.0)
	1994	15 (0.8) *** (***)	22 (2.0) 214 (2.1)
Never or hardly ever	1992	8 (0.6) *** (***)	14 (2.3) 217 (3.2)
	1994	1 (0.3) *** (***)	9 (1.6) 212 (3.9)

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

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.

## Instructional Activities

Teachers can nurture students' developing reading ability by providing instructional activities that prepare students for a wide variety of specific reading tasks.<sup>38</sup> Effective activities support students' understanding of the text being read and model the ways in which students can control the process of building meaning when reading on their own.<sup>39</sup> To provide information about the instructional activities in which fourth-grade students are engaged, the students participating in the Trial State Assessment Program and their reading teachers were asked to report on the frequency with which the teachers asked the students to do a variety of activities. The students' and teachers' responses are presented in the three following sections — workbooks, worksheets, and writing; discussions and group activities; and time to read. The students' and teachers' responses sometimes reflect different perceptions of the frequency of some activities.

<sup>38</sup> S.G. Paris. "Teaching Children to Guide Their Reading and Learning," in Taffy E. Raphael, Ed., *The Contexts of School-Based Literacy*. (New York, NY: Random House, 1984). pp. 115-130.

<sup>39</sup> A.P. Sweet. *Transforming Ideas for Teaching and Learning to Read*. (Washington, DC: Office of Educational Research and Improvement, 1993).

## Workbooks, Worksheets, and Writing

Some educators and researchers have suggested that children spend a disproportionate amount of time completing workbook tasks rather than receiving reading instruction or actively constructing their own understandings.<sup>40</sup> Analyses of workbook and worksheet activities reveal that many of these tasks require only a perfunctory level of reading.<sup>41</sup> Although we do not know what specific activities constitute time spent on workbooks and worksheets, such tasks rarely require students to engage in any extended writing. Writing activities have been found to incite children's interest and involvement in learning about language and to enhance their reading comprehension.<sup>42</sup> To examine the use of workbooks, worksheets, and the reading/writing connection, students and their reading teachers were asked about the frequency with which teachers asked students to work in a reading workbook or on a worksheet or to write about something they had read. Table 6.3 provides these results.

In 1994, according to the fourth-grade public school **students** in Guam:

- The percentage of students who were asked to work in a reading workbook or on a worksheet almost every day (48 percent) was greater than the percentage of students who were asked to write about something they have read almost every day (30 percent).
- Students who were asked to work in a reading workbook or on a worksheet almost every day demonstrated an average reading proficiency (190) which was higher than that of students who did this activity less than weekly (170).
- The average reading proficiency of students who were asked to write about something they have read almost every day (183) was not significantly different from that of students who were asked to do this less than weekly (179).

And, according to their **reading teachers**:

- The percentage of students who were asked to work in a reading workbook or on a worksheet almost every day (23 percent) was smaller than the percentage of students who were asked to write about something they have read almost every day (38 percent).

<sup>40</sup> P.D. Pearson, L.R. Roehler, J.A. Dole, and G.G. Duffy. "Developing Expertise in Reading Comprehension," in S.J. Samuels and A.E. Farstrup, Eds., *What Research Has to Say About Reading Instruction*. (Newark, DE: International Reading Association, 1992); R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

<sup>41</sup> J.R. Campbell, B.A. Kapinus, and A.S. Beatty. *Interviewing Children About Their Literacy Experiences*. (Washington, DC: National Center for Education Statistics, Government Printing Office, 1995); J. Osborn. "Workbooks: Counting, Matching, and Judging," in J. Osborn, P.T. Wilson, and R.C. Anderson Eds., *Reading Education: Foundations for a Literate America*. (Lexington, MA: Lexington Books, 1985).

<sup>42</sup> S.D. Miller, T. Adkins, and M.L. Hooper. "Why Teachers Select Specific Literacy Assignments and Students' Reactions to Them," in *Journal of Reading Behavior*, 25(1), 69-93. 1993; D.C. Simmons, E.J. Kameeuni, S. Dickson, D. Chard, B. Gunn, and S. Baker. "Integrating Narrative Reading Comprehension and Writing Instruction for All Learners," in *Multidimensional Aspects of Literacy Research, Theory, and Practice*. (Chicago, IL: National Reading Conference, 1994).





1994 Trial State Assessment

TABLE 6.3

*Public School Teachers' and Students' Reports on  
Workbooks, Worksheets, and Writing*

	Guam		Nation		
	Teacher	Student	Teacher	Student	
<b>Percentage and Proficiency</b>					
<i>How often do you (does your teacher) do each of the following as a part of reading instruction?</i>					
<b>Ask students to work in a reading workbook or on a worksheet*</b>					
Almost every day	1992	41 (1.0) 180 (1.7)	46 (1.1) 191 (1.6)	31 (2.7) 213 (1.8)	50 (1.6) 217 (1.1)
	1994	23 (0.8) *** (***)	48 (1.1) 190 (1.4)	26 (2.6) 207 (2.5)	51 (1.3) 218 (1.3)
At least once a week	1992	50 (1.1) 165 (2.0)	28 (1.1) 183 (2.2)	48 (3.4) 216 (1.7)	29 (1.0) 218 (1.7)
	1994	55 (0.9) 180 (1.9)	27 (0.9) 180 (2.0)	48 (2.5) 214 (1.4)	25 (0.9) < 215 (1.4)
Less than weekly	1992	9 (0.5) *** (***)	26 (0.9) 169 (2.1)	22 (2.8) 221 (3.3)	21 (1.1) 210 (1.7)
	1994	22 (0.8) *** (***)	25 (0.8) 170 (3.0)	26 (2.9) 217 (1.9)	24 (1.0) 203 (1.9) <
<b>Ask students to write about something they have read*</b>					
Almost every day	1992	30 (1.1) 182 (1.8)	26 (0.9) 178 (1.9)	25 (1.8) 220 (2.7)	23 (0.8) 210 (1.6)
	1994	38 (0.9) 178 (2.2)	30 (0.9) > 183 (1.9)	30 (2.4) 212 (2.5)	23 (1.0) 208 (1.8)
At least once a week	1992	49 (1.0) 179 (2.1)	33 (1.0) 187 (2.4)	49 (2.6) 216 (1.9)	34 (1.0) 217 (1.2)
	1994	57 (0.9) 182 (1.7)	36 (0.9) 187 (1.7)	56 (2.3) 213 (1.5)	33 (0.7) 215 (1.4)
Less than weekly	1992	21 (0.9) 187 (2.6)	40 (1.0) 183 (1.8)	26 (2.5) 213 (2.4)	43 (1.2) 217 (1.2)
	1994	4 (0.4) *** (***)	34 (1.0) < 179 (2.0)	14 (2.0) 215 (2.6)	44 (0.9) 216 (1.3)

\* The question associated with this variable that was posed to teachers was reformatted in 1994. No trend comparison tests were conducted on the teacher data.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.

## Discussion and Group Activities

Discussion-related activities are an important part of classroom learning, because they provide opportunities for students to ask questions about things they do not understand or want to know more about. A lack of emphasis on group work or the sharing of different interpretations limits opportunities students have for discovering that their reactions or interpretations may not be the only ones justified by the text.<sup>43</sup> Furthermore, working in groups and discussing reading provide opportunities for students to develop language and communication skills that are necessary for literacy learning.

To examine the prevalence of discussion-related activities, students and their reading teachers were asked about how frequently the students discussed new or difficult vocabulary, talked with each other about what they have read, or did a group activity or project about what they have read (Table 6.4).

In 1994, according to the fourth-grade **students** in public schools:

- About one third of the students in Guam (35 percent) were asked to discuss new or difficult vocabulary almost every day. This percentage was somewhat greater than that of students across the nation (32 percent).
- The percentage of students in Guam who were asked to talk with each other almost every day about what they have read (23 percent) was greater than that of students across the nation (17 percent).
- About one fifth of the students in Guam (22 percent) were asked to do a group activity or project about what they have read almost every day. This figure was greater than that of students across the nation, where 15 percent of the students were asked to do this.

And, according to their **reading teachers**:

- In Guam, 63 percent of the students were asked to discuss new or difficult vocabulary almost every day. This percentage did not differ significantly from that of students across the nation (62 percent).
- The percentage of students in Guam who were asked to talk with each other almost every day about what they have read (45 percent) was greater than that of students across the nation, where 34 percent of the students were asked to do this activity almost every day.
- Less than one fifth of the students in Guam (15 percent) were asked to do a group activity or project about what they have read almost every day. This figure was greater than that of students across the nation (5 percent).

<sup>43</sup> J. Moffett and B. Wagner. "Student Centered Reading Activities," in *English Journal*, 80. 1991.





TABLE 6.4

*Public School Teachers' and Students' Reports on the Frequency of Discussion and Group Activities*

	Guam		Nation		
	Teacher	Student	Teacher	Student	
<b>Percentage and Proficiency</b>					
<b>How often do you (does your teacher) do each of the following as a part of reading instruction?</b>					
<b>Discuss new or difficult vocabulary*</b>					
Almost every day	1992	65 (1.1)	29 (1.0)	49 (2.4)	31 (0.9)
		182 (1.8)	185 (2.1)	214 (1.8)	215 (1.4)
	1994	63 (0.9)	35 (1.0) >	62 (2.5)	32 (0.8)
		182 (1.6)	184 (1.9)	211 (1.4)	214 (1.6)
At least once a week	1992	35 (1.1)	37 (1.0)	49 (2.3)	39 (1.0)
		181 (1.8)	188 (1.9)	218 (1.9)	220 (1.3)
	1994	37 (0.9)	33 (1.2) <	37 (2.6)	36 (0.8)
		177 (2.1)	187 (1.5)	218 (1.5)	218 (1.4)
Less than weekly	1992	0 (0.0)	34 (1.0)	2 (0.8)	30 (0.8)
		*** (***)	176 (1.8)	218 (7.6)!	209 (1.3)
	1994	0 (0.0)	32 (1.0)	1 (0.5)	31 (0.8)
		*** (***)	175 (2.3)	*** (***)	207 (1.4)
<b>Ask students to talk with each other about what they have read**</b>					
Almost every day	1992	34 (1.0)	-- (--)	32 (2.6)	-- (--)
		180 (2.6)	-- (--)	215 (2.2)	-- (--)
	1994	45 (0.8)	23 (0.9)	34 (2.5)	17 (0.7)
		182 (2.3)	176 (1.9)	211 (2.2)	202 (2.0)
At least once a week	1992	48 (1.1)	-- (--)	49 (3.0)	-- (--)
		181 (1.7)	-- (--)	218 (1.7)	-- (--)
	1994	41 (1.0)	32 (1.0)	48 (2.5)	30 (0.8)
		179 (1.8)	179 (1.7)	215 (1.5)	213 (1.4)
Less than weekly	1992	18 (0.8)	-- (--)	19 (2.7)	-- (--)
		184 (2.4)	-- (--)	213 (2.9)	-- (--)
	1994	15 (0.7)	45 (1.1)	18 (1.8)	53 (0.9)
		*** (***)	187 (1.8)	215 (2.0)	218 (1.3)
<b>Ask students to do a group activity or project about what they have read**</b>					
Almost every day	1992	5 (0.5)	-- (--)	3 (0.8)	-- (--)
		*** (***)	-- (--)	220 (4.5)!	-- (--)
	1994	15 (0.7)	22 (0.8)	5 (1.1)	15 (0.6)
		185 (3.3)	173 (2.6)	207 (5.5)!	198 (1.9)
At least once a week	1992	24 (1.0)	-- (--)	21 (2.4)	-- (--)
		178 (2.5)	-- (--)	218 (2.3)	-- (--)
	1994	32 (1.1)	31 (0.9)	28 (2.4)	24 (0.7)
		184 (1.9)	181 (1.9)	214 (2.0)	209 (1.4)
Less than weekly	1992	71 (1.1)	-- (--)	76 (2.5)	-- (--)
		183 (1.7)	-- (--)	215 (1.5)	-- (--)
	1994	52 (1.0)	47 (1.2)	67 (2.3)	61 (0.9)
		177 (2.0)	189 (1.6)	214 (1.3)	220 (1.2)

\* The question associated with this variable that was posed to teachers was reformatted in 1994. No trend comparison tests were conducted on the teacher data. \*\* The questions associated with these variables that were posed to teachers were reformatted in 1994 and the comparable questions posed to students were changed substantially. 1992 data are presented only for teacher responses and no trend comparison tests were conducted. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.

## Time to Read

Independent reading continues to be a major contributor to reading fluency.<sup>44</sup> In contrast to completing workbook pages or computer drills, the reading of books provides practice in the whole act of reading. However, some studies have suggested that students may not be asked to read in school as frequently as is necessary to support literacy development.<sup>45</sup>

Both the fourth-grade students and their reading teachers were questioned about the frequency with which the teachers asked the students to read aloud or read silently, or gave the students time to read books of their own choosing. Table 6.5 provides this information.

According to the fourth-grade public school **students** in 1994:

- The percentage of students in Guam who were asked to read aloud almost every day (43 percent) did not differ significantly from that of students across the nation who were asked to read aloud almost every day (45 percent).
- More than half of the students (59 percent) were asked to read silently almost every day. This figure was smaller than that for the nation (64 percent).
- In Guam, 46 percent of the students were given time to read books of their own choosing almost every day. This percentage was smaller than that of students nationwide (53 percent).

And, according to their **reading teachers**:

- About two thirds of the students in Guam (65 percent) were asked to read aloud almost every day. This figure was greater than that of students across the nation, where 57 percent of the students were asked to read aloud almost every day.
- The percentage of students in Guam who were asked to read silently almost every day (69 percent) was smaller than that of students across the nation (74 percent).
- About three quarters of the students in Guam (73 percent) were given time to read books of their own choosing almost every day. This did not differ significantly from the percentage of students across the nation (69 percent).

<sup>44</sup> I. Wilkinson, J.L. Wardrop, and R.C. Anderson. "Silent Reading Reconsidered: Reinterpreting Reading Instruction and Its Effects," in *American Educational Research Journal*, 25(1). (1988). pp. 127-144; C.S. Huck. "Literacy and Literature," in *Language Arts*, 69. (1992). pp. 520-526.

<sup>45</sup> R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985); M.A. Foertsch. *Reading In and Out of School*. (Washington, DC: National Center for Education Statistics, 1992).



1994 Trial State Assessment

TABLE 6.5

*Public School Teachers' and Students' Reports on the Frequency of Reading in Class*

	Guam		Nation		
	Teacher	Student	Teacher	Student	
<b>Percentage and Proficiency</b>					
<i>How often do you (does your teacher) do each of the following as a part of reading instruction?</i>					
<b>Ask students to read aloud**</b>					
Almost every day	1992	50 (0.9)	-- (--)	47 (2.9)	-- (--)
	1994	180 (2.0)	-- (--)	212 (1.6)	-- (--)
	1992	65 (1.0)	43 (1.1)	57 (2.4)	45 (1.2)
	1994	180 (1.6)	187 (1.4)	210 (1.5)	215 (1.3)
At least once a week	1992	40 (1.1)	-- (--)	45 (2.5)	-- (--)
	1994	183 (2.1)	-- (--)	220 (1.8)	-- (--)
	1992	33 (1.0)	30 (1.1)	38 (2.3)	30 (0.8)
	1994	183 (1.9)	185 (1.8)	217 (1.6)	218 (1.4)
Less than weekly	1992	10 (0.7)	-- (--)	8 (1.7)	-- (--)
	1994	3 (0.3)	27 (0.9)	222 (4.1)!	-- (--)
	1992	*** (***)	176 (2.5)	228 (5.0)!	209 (1.9)
<b>Ask students to read silently*</b>					
Almost every day	1992	67 (1.2)	57 (1.2)	75 (2.3)	67 (1.1)
	1994	182 (1.9)	192 (1.3)	218 (1.8)	221 (1.3)
	1992	69 (1.1)	59 (1.0)	74 (2.3)	64 (1.1)
	1994	180 (1.5)	191 (1.4)	214 (1.3)	220 (1.3)
At least once a week	1992	31 (1.2)	23 (0.8)	23 (2.1)	22 (0.9)
	1994	183 (1.9)	184 (2.7)	212 (2.2)	213 (1.5)
	1992	30 (1.1)	22 (0.9)	23 (2.3)	23 (0.9)
	1994	180 (2.4)	180 (2.2)	210 (2.5)	213 (1.6)
Less than weekly	1992	2 (0.5)	19 (0.9)	2 (0.5)	11 (0.6)
	1994	1 (0.2)	157 (2.5)	207 (5.5)!	193 (2.1)
	1992	*** (***)	164 (2.5)	209 (7.9)!	188 (1.9)
<b>Give students time to read books they have chosen themselves****</b>					
Almost every day	1992	-- (--)	42 (1.0)	-- (--)	55 (1.5)
	1994	-- (--)	185 (1.9)	-- (--)	222 (1.3)
	1992	73 (1.2)	46 (1.1) >	69 (2.5)	53 (1.1)
	1994	179 (1.6)	188 (1.7)	215 (1.4)	220 (1.1)
At least once a week	1992	-- (--)	32 (1.2)	-- (--)	27 (1.1)
	1994	-- (--)	190 (1.7)	-- (--)	214 (1.7)
	1992	26 (1.2)	31 (0.9)	25 (2.4)	29 (0.9)
	1994	184 (2.3)	185 (1.8)	210 (2.5)	212 (1.6)
Less than weekly	1992	-- (--)	26 (1.0)	-- (--)	18 (0.8)
	1994	-- (--)	171 (2.7)	-- (--)	202 (1.4)
	1992	1 (0.2)	23 (0.9) <	6 (1.2)	18 (0.7)
	1994	*** (***)	173 (2.1)	207 (4.9)	204 (2.3)

\* The question associated with this variable that was posed to teachers was reformatted in 1994. No trend comparison tests were conducted on the teacher data. \*\* The questions associated with these variables that were posed to teachers were reformatted in 1994 and the comparable questions posed to students were changed substantially. 1992 data are presented only for teacher responses and no trend comparison tests were conducted. \*\*\*\* The question associated with this variable that was posed to teachers was changed substantially in 1994. No 1992 data are presented for teacher responses. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



## Reading and Use of Libraries

Analysis of schools that have been successful in promoting independent reading suggests that one of the keys is ready access to books.<sup>46</sup> Libraries can be a major resource in developing students' reading abilities because students can use them as quiet places to read as well as to check out books and to obtain reference information.<sup>47</sup> Thus, to examine library use, students' reading teachers were asked about the frequency with which they sent or took their reading classes to the library and assigned students to read a book from the library. Table 6.6 provides the results from public school teachers' reports about the frequency of sending fourth-grade students to the library.

- In 1994, almost all of the students in Guam (97 percent) had reading teachers who sent or took the class to the library at least once a week. This percentage was larger than that of students in the nation whose teachers sent or took the class to the library with the same frequency (86 percent).



**TABLE 6.6**

*Public School Teachers' Reports on Sending Students to the Library*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<b>How often do you send or take the class to the library?*</b>		
<b>At least once a week</b>		
1992	92 (0.4) 181 (1.4)	85 (2.7) 218 (1.5)
1994	97 (0.5) 181 (1.4)	86 (1.8) 214 (1.1)
<b>Once or twice a month</b>		
1992	7 (0.3) *** (***)	9 (1.9) 208 (4.1)!
1994	3 (0.5) *** (***)	9 (1.8) 209 (4.7)!
<b>Never or hardly ever</b>		
1992	1 (0.1) *** (***)	5 (1.6) 208 (4.3)!
1994	0 (0.1) *** (***)	3 (0.8) 202 (7.3)!

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

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>46</sup> R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

<sup>47</sup> K.C. Lance, L. Welborn, and C. Hamilton-Pennel. *The Impact of School Library Media Centers on Academic Achievement*. (Castle Rock, CO: Hi Willow Research and Publishing, 1993).

Table 6.7 provides the results about public school teachers' reports on the frequency of assigning students to read a book from the library.

- In 1994, about three quarters of the fourth graders in Guam (74 percent) had reading teachers who assigned reading a book from the library at least once a week. The percentage of students whose teachers assigned reading library books this often was smaller across the nation (47 percent).



**TABLE 6.7**

*Public School Teachers' Reports on Assigning Books from the Library*

	Guam	Nation
	<b>Percentage and Proficiency</b>	
<b>How often do you assign students to read a book from the library?*</b>		
<b>At least once a week</b>		
1992	61 (0.7) 179 (1.7)	50 (2.8) 216 (1.6)
1994	74 (0.7) 180 (1.4)	47 (3.1) 212 (1.5)
<b>Once or twice a month</b>		
1992	22 (0.7) 191 (2.2)	31 (2.7) 219 (2.2)
1994	15 (0.7) *** (***)	37 (2.8) 215 (2.0)
<b>Never or hardly ever</b>		
1992	17 (0.5) *** (***)	19 (2.3) 213 (2.6)
1994	10 (0.6) *** (***)	17 (1.5) 213 (3.2)

\* The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. \*\*\* Sample size is insufficient to permit a reliable estimate.

## Assessing Progress in Reading

Ten years ago, the authors of *Becoming a Nation of Readers* argued that standardized tests do not always provide a deep assessment of reading comprehension and should be supplemented with observations of reading fluency, critical analysis of lengthy reading selections, and measures of the amount of independent reading and writing done by children.<sup>48</sup>

Over the last decade, reforms in classroom assessment have been called for at numerous levels. Many educators have begun to utilize assessment methods that are more instructionally-relevant and performance based.<sup>49</sup> At the same time, policy makers and the interested public have called for educational assessments that measure the more integrative, complex abilities that are associated with advanced achievement.<sup>50</sup>

Fourth-grade students' reading teachers were asked a series of questions to report on how often they used different types of assessment measures — including multiple-choice tests, longer extended constructed-response questions, and reading portfolios — to assess student progress in reading. The use of reading portfolios<sup>51</sup> is an emerging assessment technique that may not be widely used in many schools. From Table 6.8:

- In 1994, about one fifth of the fourth-grade public school students in Guam (20 percent) were assessed with multiple-choice tests once or twice a week. This figure was greater than that for the nation, where 12 percent of the students were similarly assessed.
- The percentage of students in Guam public schools in 1994 who were asked to write paragraphs about what they had read once or twice a week (61 percent) was greater than that of students across the nation (39 percent).
- In 1994, less than one third of the fourth graders in public schools in Guam (28 percent) were assessed by using reading portfolios once or twice a week. This percentage was larger than that of students across the nation (15 percent).

---

<sup>48</sup> R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

<sup>49</sup> S.W. Valencia, E.H. Hiebert, and P.P. Afflerbach, Eds.. *Authentic Reading Assessment: Practices and Possibilities*. (Newark, DE: International Reading Association, 1994).

<sup>50</sup> G. Wiggins. "Assessment: Authenticity, Context, and Validity," in *Phi Delta Kappan*. (November, 1993). pp. 200-214.

<sup>51</sup> S.W. Valencia, E.H. Hiebert, and P.P. Afflerbach, Eds.. *Authentic Reading Assessment: Practices and Possibilities*.





TABLE 6.8

Public School Teachers' Reports on Assessing  
Progress in Reading

			Guam	Nation
<i>How often do you use each of the following to assess student progress in reading?</i>			Percentage and Proficiency	
<b>Multiple-choice tests*</b>				
Once or twice a week	1992		29 (1.1)	14 (2.1)
	1994		179 (2.0)	208 (3.1)
Once or twice a month	1992		20 (0.8)	12 (1.9)
	1994		*** (***)	211 (3.1)
Once or twice a year	1992		49 (1.1)	49 (3.3)
	1994		182 (1.9)	217 (1.7)
Never or hardly ever	1992		48 (1.0)	49 (2.1)
	1994		180 (1.9)	212 (1.7)
Paragraph length written responses about what students have read	1992		11 (0.7)	15 (2.2)
	1994		*** (***)	220 (2.5)
Once or twice a week	1992		9 (0.7)	17 (1.5)
	1994		*** (***)	216 (3.2)
Once or twice a month	1992		10 (0.6)	21 (3.4)
	1994		*** (***)	218 (3.5)
Once or twice a year	1992		23 (0.9)	22 (2.3)
	1994		*** (***)	215 (2.7)
Never or hardly ever	1992		---	---
	1994		---	---
Reading portfolios*	1992		61 (0.9)	39 (3.0)
	1994		181 (1.6)	215 (1.5)
Once or twice a week	1992		---	---
	1994		---	---
Once or twice a month	1992		34 (0.8)	44 (2.9)
	1994		178 (1.9)	214 (1.5)
Once or twice a year	1992		---	---
	1994		---	---
Never or hardly ever	1992		1 (0.2)	10 (1.4)
	1994		*** (***)	213 (3.4)
Reading portfolios*	1992		---	---
	1994		---	---
Once or twice a week	1992		4 (0.3)	7 (1.4)
	1994		*** (***)	201 (3.8)!
Once or twice a month	1992		17 (0.7)	14 (1.8)
	1994		177 (3.4)	217 (4.2)
Once or twice a year	1992		28 (0.9)	15 (1.6)
	1994		176 (1.9)	209 (2.4)
Never or hardly ever	1992		30 (1.2)	25 (2.3)
	1994		183 (1.9)	221 (2.4)
Paragraph length written responses about what students have read	1992		37 (1.0)	26 (2.6)
	1994		186 (2.0)	212 (2.8)
Reading portfolios*	1992		25 (0.9)	13 (2.3)
	1994		178 (1.8)	216 (3.7)
Once or twice a week	1992		16 (0.7)	16 (2.0)
	1994		*** (***)	217 (2.8)
Once or twice a month	1992		28 (1.0)	47 (3.3)
	1994		185 (2.2)	214 (1.4)
Once or twice a year	1992		19 (0.8)	43 (2.5)
	1994		*** (***)	214 (1.8)

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

--- The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment. The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.

## CHAPTER 7

# Who Is Teaching Reading to Fourth Graders?

## Preparation and Experience

Many states have begun to raise teacher certification standards and strengthen teacher training programs. In curriculum areas requiring special attention and improvement, such as reading, it is particularly important to have well-qualified teachers. To provide information about the staff who are teaching reading to fourth-grade students, the Trial State Assessment Program gathered details on the educational backgrounds of the teachers of the assessed students. Table 7.1 summarizes fourth-grade public school teachers' responses to questions concerning their academic preparation, certification, and their years of elementary or secondary teaching experience. In 1994:

- The percentage of students who were being taught by reading teachers who reported having at least a master's or education specialist's degree in Guam (32 percent) was smaller than that for the nation (41 percent).
- More than half of the students (57 percent) had reading teachers who had the highest level of teaching certification that is recognized by Guam. This was smaller than the figure for the nation, where 65 percent of the students were taught by reading teachers who were certified at the highest level available in their states.
- In Guam, 24 percent of the students were being taught reading by teachers who had an undergraduate major in English, reading, and/or language arts. This was greater than the percentage of students across the nation who were being taught by reading teachers with the same major (20 percent).
- The percentage of students in Guam who were taught reading by teachers who had a graduate major in English, reading, and/or language arts (12 percent) did not differ significantly from that of students across the nation (13 percent).
- The percentage of students who were being taught reading by teachers who have taught at either the elementary or secondary level for at least 11 years (including part-time teaching) in Guam (45 percent) was lower than that for students across the nation (67 percent).



1994 Trial State Assessment

TABLE 7.1

*Public School Teachers' Reports on Their Fields of Study and Teaching Experience*

		Guam	Nation
		Percentage	
<b>What is the highest academic degree you hold?</b>			
Bachelor's degree	1992	— (—)	— (—)
	1994	68 (0.7)	59 (2.7)
Master's or specialist's degree	1992	— (—)	— (—)
	1994	31 (0.7)	41 (2.7)
Doctorate or professional degree	1992	— (—)	— (—)
	1994	1 (0.1)	0 (0.1)
<b>What type of teaching certification do you have that is recognized by Guam?</b>			
None, temporary, probational, provisional, or emergency	1992	— (—)	— (—)
	1994	12 (0.6)	6 (1.3)
Regular certification but less than the highest available	1992	— (—)	— (—)
	1994	30 (0.9)	30 (2.2)
Highest certification available	1992	— (—)	— (—)
	1994	57 (1.0)	65 (2.5)
<b>What was your undergraduate major?</b>			
English, reading, and/or language arts	1992	— (—)	— (—)
	1994	24 (0.9)	20 (1.8)
Education	1992	— (—)	— (—)
	1994	63 (1.1)	69 (2.8)
Other	1992	— (—)	— (—)
	1994	13 (0.9)	12 (2.1)
<b>What was your graduate major?</b>			
English, reading, and/or language arts	1992	— (—)	— (—)
	1994	12 (0.7)	13 (1.2)
Education	1992	— (—)	— (—)
	1994	54 (0.8)	54 (2.7)
Other or no graduate level of study	1992	— (—)	— (—)
	1994	35 (1.1)	33 (2.5)
<b>How many years in total have you taught at either the elementary or secondary level?</b>			
2 years or less	1992	11 (0.7)	7 (1.4)
	1994	21 (0.7) >	7 (1.2)
3-5 years	1992	13 (0.9)	13 (1.9)
	1994	14 (0.8)	12 (1.9)
6-10 years	1992	15 (0.6)	12 (1.4)
	1994	19 (0.7) >	14 (1.5)
11-24 years	1992	50 (1.1)	51 (2.4)
	1994	40 (0.9) <	48 (2.1)
25 years or more	1992	12 (0.6)	18 (1.7)
	1994	5 (0.3) <	19 (1.9)

--- The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.



## Professional Development

Teachers were also asked about the amount of time they spent in staff development workshops or seminars dedicated to reading or the teaching of reading during the year immediately preceding the Trial State Assessment Program. From Table 7.2, in 1994:

- In Guam, 40 percent of the fourth-grade public school students had reading teachers who spent at least 16 hours in staff development workshops or seminars dedicated to reading or the teaching of reading. This figure did not differ significantly from that for the nation (36 percent).
- The percentage of students in Guam public schools whose reading teachers spent no time on staff development workshops or seminars in reading or the teaching of reading (16 percent) was higher than that of students across the nation (10 percent).



**TABLE 7.2**

*Public School Teachers' Reports on Time Spent in Staff Development Workshops and Seminars*

	Guam	Nation
<b>Percentage</b>		
<b>During the last year, how much time in total have you spent in staff development workshops or seminars in reading or the teaching of reading?*</b>		
<b>None</b>		
1992	13 (0.7)	9 (1.4)
1994	16 (0.8)	10 (1.3)
<b>One to 15 hours</b>		
1992	50 (1.1)	60 (2.9)
1994	45 (1.2)	54 (2.7)
<b>16 hours or more</b>		
1992	36 (0.9)	31 (2.6)
1994	40 (0.9)	36 (2.8)

\* The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Finally, teachers were asked to report on whether they had training in specific aspects of reading during the past five years, either in college courses or through workshops. As indicated in Table 7.3, regarding fourth-grade public school students in 1994:

- In Guam, 78 percent of the students had reading teachers who reported that they had training in teaching critical thinking skills. This was not significantly different from the figure for the nation, where 78 percent of the students had teachers who reported having such training.
- A large majority of the students in Guam (86 percent) had reading teachers who reported that they had training in combining reading and writing. This percentage was not significantly different from that for students across the nation (89 percent).
- A large majority of the students in Guam (84 percent) had teachers who reported having training in the whole language approach to teaching reading. This percentage did not differ significantly from that for the nation (85 percent).
- In Guam, 73 percent of the students had teachers who reported that they had training in reading assessment. This figure was higher than that for students across the nation, where 67 percent of the students had teachers who had training in reading assessment.



**TABLE 7.3**

*Public School Teachers' Reports on Training in Specific Reading Areas*

	Guam	Nation
<b>Percentage</b>		
<b>During the past five years, have you ever had training in any of the following?</b>		
<b>Teaching critical thinking</b>		
1992	82 ( 0.8)	83 ( 1.8)
1994	78 ( 1.0) <	78 ( 2.4)
<b>Combining reading and writing</b>		
1992	85 ( 0.9)	89 ( 1.7)
1994	86 ( 1.0)	89 ( 1.7)
<b>The whole language approach to teaching reading</b>		
1992	74 ( 1.0)	80 ( 2.0)
1994	84 ( 0.5) >	85 ( 2.1)
<b>Reading assessment</b>		
1992	72 ( 0.6)	75 ( 1.8)
1994	73 ( 0.6)	67 ( 2.4) <

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## CHAPTER 8

### Students' Home Support for Literacy

A multitude of home and attitudinal variables may affect students' reading achievement.<sup>52</sup> In addition, good readers usually interact with a wide variety of materials on their own, and share their experiences with family and friends.<sup>53</sup> Thus, it is important to understand students' attitudes toward reading, the extent to which students read on their own, and the degree of home support that is available for reading. To examine these factors, students participating in the Trial State Assessment Program were asked a series of questions about themselves, their parents or guardians, and home factors related to reading.

### Reading Outside of School

Because of the increasing concern for students' independent reading habits,<sup>54</sup> students participating in the Trial State Assessment Program were asked to report on how often they read for fun on their own time (Table 8.1). They also were asked about the number of books they have read on their own outside of school during the month preceding the assessment (Table 8.2), and how often they have taken books out of the school library or public library for their own enjoyment (Table 8.3).

---

<sup>52</sup> J.T. Guthrie and V. Greaney. "Literacy Acts," in R. Barr, M. Kamil, P. Mosenthal, and P.D. Pearson, Eds., *Handbook of Reading Research: Volume II*. (New York, NY: Longman, 1991).

<sup>53</sup> A.P. Sweet. *Transforming Ideas for Teaching and Learning to Read*. (Washington, DC: Office of Educational Research and Improvement, 1993).

<sup>54</sup> L.G. Fielding, P.T. Wilson, and R.C. Anderson. "A New Focus on Free Reading: The Role of Trade Books in Reading and Instruction," in T. Raphael and R. Reynolds, Eds., *Contexts of Literacy*. (New York: Longman, 1990).



The results are provided in Table 8.1 regarding how often fourth-grade public school students reported reading for fun on their own time.

- In 1994, 44 percent of the students in Guam reported that they read for fun almost every day. This figure did not differ significantly from that for the nation (45 percent).
- In Guam in 1994, the average reading proficiency of students who read for fun almost every day (187) was higher than that of students who reported that they read for fun once or twice a month or less (172).



**TABLE 8.1**

*Public School Students' Reports on the Frequency of Reading for Fun*

	Guam	Nation
<b>How often do you read for fun on your own time?</b>	<b>Percentage and Proficiency</b>	
<b>Almost every day</b>		
1992	39 (1.0) 186 (1.8)	43 (1.0) 221 (1.3)
1994	44 (1.3) > 187 (1.7)	45 (0.7) 221 (1.3)
<b>Once or twice a week</b>		
1992	35 (1.0) 185 (1.7)	32 (0.9) 217 (1.3)
1994	32 (1.0) 182 (1.8)	31 (0.7) 212 (1.3) <
<b>Once or twice a month</b>		
1992	10 (0.6) 175 (3.1)	12 (0.5) 208 (1.8)
1994	10 (0.7) 175 (3.0)	12 (0.5) 206 (2.3)
<b>Never or hardly ever</b>		
1992	16 (0.8) 174 (3.3)	13 (0.6) 198 (2.0)
1994	14 (0.8) 170 (3.2)	12 (0.4) 195 (2.0)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

Concerning how many books were read by fourth-grade public school students in Guam, Table 8.2 reveals that:

- Less than half of the Guam students in 1994 (46 percent) read five or more books on their own outside of school in the month preceding the assessment. This figure was somewhat larger than that of students across the nation, where 42 percent of the students reported reading the same number of books.
- In 1994 in Guam, average reading proficiency was highest for students who read five books or more on their own outside of school during the month prior to the assessment and lowest for students who read no books.



**TABLE 8.2**

*Public School Students' Reports on the Number of Books Read Outside of School in the Past Month*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<i>During the past month, how many books have you read on your own outside of school?</i>		
<b>None</b>		
1992	13 (0.7)	7 (0.4)
	169 (3.0)	196 (2.6)
1994	11 (0.6)	9 (0.6)
	161 (3.3)	192 (2.5)
<b>One or two</b>		
1992	27 (1.0)	25 (0.8)
	170 (2.1)	214 (1.8)
1994	21 (0.7) <	26 (0.8)
	175 (1.6)	211 (1.5)
<b>Three or four</b>		
1992	20 (0.9)	24 (0.7)
	183 (2.4)	219 (1.6)
1994	22 (0.9)	23 (0.6)
	178 (2.0)	216 (1.8)
<b>Five or more</b>		
1992	39 (1.1)	44 (1.0)
	196 (1.8)	217 (1.3)
1994	46 (1.1) >	42 (0.8)
	191 (1.6)	215 (1.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

Finally, regarding the frequency with which students took books out of the school library or public library for their own enjoyment, from Table 8.3:

- In Guam in 1994, 65 percent of the fourth-grade public school students took books out of the library for their own enjoyment at least once a week. This percentage did not differ significantly from that for the nation (63 percent).
- In 1994, public school fourth graders in Guam who took books out of the library at least once a week had an average reading proficiency (186) that was higher than that of students who never or hardly ever took books out of the library for their own enjoyment (171).



**TABLE 8.3**

*Public School Students' Reports on the Frequency of Taking Books Out of the Library*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<b>How often do you take books out of the school library or public library for your own enjoyment?</b>		
<b>Almost every day</b>		
1992	18 (1.0)	15 (0.6)
	174 (2.8)	211 (1.7)
1994	21 (0.8) >	16 (0.5)
	177 (2.2)	207 (1.9)
<b>Once or twice a week</b>		
1992	45 (1.0)	48 (0.9)
	193 (1.8)	219 (1.2)
1994	44 (1.1)	47 (0.8)
	191 (1.5)	220 (1.2)
<b>Once or twice a month</b>		
1992	15 (0.8)	22 (0.8)
	177 (2.4)	219 (1.4)
1994	16 (0.8)	21 (0.8)
	180 (3.3)	215 (1.7)
<b>Never or hardly ever</b>		
1992	22 (0.9)	15 (0.7)
	175 (2.0)	202 (1.8)
1994	19 (0.8) <	16 (0.7)
	171 (3.1)	198 (2.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Reading in the Home

The presence of parents or siblings who model and share reading and the availability of reading materials in the home are critical factors in the development of students' appreciation of reading and, ultimately, their comprehension and fluency.<sup>55</sup> Students participating in the Trial State Assessment Program were asked about the availability of newspapers, magazines, books, and an encyclopedia at home. They were also asked about the frequency with which they discussed things they had read with friends and family.

Average reading proficiency associated with having zero to two, three, or four of these types of materials in the home is shown in Table 8.4. The data for public school fourth-grade students in 1994 reveal that:

- In Guam, 19 percent of the students reported having all four of these types of materials in the home. This figure was lower than that for the nation (36 percent).
- Students in Guam who had all four of these types of materials in the home showed an average reading proficiency (197) that was higher than that of students with zero to two types of materials (174).



1994 Trial State Assessment

### TABLE 8.4

#### *Public School Students' Reports on Types of Reading Materials in the Home*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<i>Does your family have, or receive on a regular basis, any of the following items: more than 25 books, an encyclopedia, newspapers, magazines?</i>		
<b>Zero to two types</b>		
1992	54 (.1.1)	33 (.0.9)
1994	179 (1.9)	203 (0.9)
<b>Three types</b>		
1992	52 (.1.1)	30 (0.9)
1994	174 (1.5)	196 (1.5) <
<b>Four types</b>		
1992	30 (.1.1)	32 (0.7)
1994	186 (2.1)	217 (1.5)
1992	29 (0.9)	34 (0.7)
1994	185 (2.3)	214 (1.3)
<b>Four types</b>		
1992	16 (0.8)	36 (1.0)
1994	192 (2.8)	224 (1.4)
1992	19 (0.9)	36 (0.9)
1994	197 (2.4)	225 (1.2)

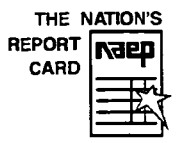
The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

<sup>55</sup> L.C. Moll. "Literary Research in Community and Classrooms: A Sociocultural Approach," in B.D. Ruddell and H. Singer, Eds.. *Theoretical Models of Reading*. (Newark, DE: International Reading Association, 1994). pp. 179-207; B. Rogoff. *Apprenticeship in Thinking*. (New York, NY: Oxford University Press, 1990); D. Taylor. *Family Literacy: Young Children Learning to Read and Write*. (Exeter, NH: Heinemann Educational Books, 1983).



Regarding the frequency with which fourth-grade public school students discuss what they read with friends and family, Table 8.5 shows that:

- In 1994 in Guam, 31 percent of the students discussed with friends or family what they read almost every day. This percentage was somewhat greater than that of students across the nation (28 percent).
- In 1994, the proficiency of students in Guam who discussed what they read with friends or family almost every day (181) did not differ significantly from that of students that had discussions with friends or family less than weekly (181).



1994 Trial State Assessment

**TABLE 8.5**

*Public School Students' Reports on Talking With Friends and Family About Reading*

	Guam	Nation
<b>Percentage and Proficiency</b>		
<b>How often do you talk with your friends or family about something you have read?</b>		
<b>Almost every day</b>		
1992	29 (1.0)	27 (0.7)
	181 (2.1)	213 (1.5)
1994	31 (0.8)	28 (0.7)
	181 (2.2)	211 (1.4)
<b>Once or twice a week</b>		
1992	32 (1.1)	35 (1.0)
	187 (2.2)	222 (1.2)
1994	32 (1.0)	35 (0.7)
	185 (1.8)	221 (1.4)
<b>Less than weekly</b>		
1992	39 (1.0)	38 (1.2)
	181 (1.7)	210 (1.3)
1994	37 (1.1)	37 (0.8)
	181 (1.9)	208 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## Hours of Television Watched Per Day

Many avid student readers watch a lot of television, while other children neither watch much television nor read.<sup>56</sup> However, despite these findings, it is generally believed that television viewing has an effect on time given to reading — frequent television viewing limits the amount of time available for other activities such as reading.<sup>57</sup> Students participating in the Trial State Assessment Program were asked to report on the amount of television they watched each day. Table 8.6 shows that, in Guam public schools in 1994:

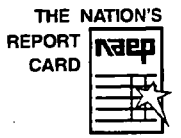
- About one quarter of the fourth-grade students (23 percent) watched six hours or more of television each day. This was not significantly different from the figure for the nation, where 22 percent of the students watched this much television.
- Average reading proficiency in Guam was higher for students who spent four to five hours watching television than for students who watched television six hours or more each day.

---

<sup>56</sup> S. Neuman. "The Home Environment and Fifth-grade Students' Leisure Reading," in *Elementary School Journal*, 83. (1986). pp. 333-343.

<sup>57</sup> P. Heather. *Young People's Reading: A Study of the Leisure Reading of 13-15 Year Olds*. (Sheffield, England: University of Sheffield, Center for Research on User Studies, 1981).





1994 Trial State Assessment

TABLE 8.6

*Public School Students' Reports on the Amount of Time Spent Watching Television Each Day*

	Guam	Nation
	<b>Percentage and Proficiency</b>	
<b>How much television do you usually watch each day?</b>		
<b>One hour or less</b>		
1992	31 (1.1)	18 (0.8)
	178 (2.1)	219 (1.9)
1994	28 (0.9)	19 (0.7)
	181 (2.2)	217 (2.2)
<b>Two hours</b>		
1992	19 (1.0)	21 (0.9)
	184 (2.0)	222 (1.6)
1994	16 (0.8)	21 (0.6)
	185 (3.0)	220 (1.4)
<b>Three hours</b>		
1992	13 (0.7)	19 (0.7)
	192 (2.8)	222 (1.3)
1994	15 (0.8)	16 (0.5) <
	186 (2.4)	219 (1.6)
<b>Four to five hours</b>		
1992	17 (0.7)	22 (0.9)
	190 (2.0)	215 (1.5)
1994	18 (0.9)	22 (0.8)
	186 (2.3)	215 (1.8)
<b>Six hours or more</b>		
1992	20 (0.9)	21 (0.8)
	176 (2.2)	198 (1.7)
1994	23 (0.8)	22 (0.7)
	173 (2.1)	193 (1.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level.

## APPENDIX A

## Procedural Appendix

This appendix provides an overview of the technical details of the 1994 Trial State Assessment Program in reading. It includes a discussion of the history of NAEP, the assessment design, the reading framework and objectives upon which the assessment was based, and the procedures used to analyze the results.

### A Recent History of NAEP

The National Assessment of Educational Progress (NAEP) is a congressionally mandated project of the National Center for Education Statistics (NCES) that has collected and reported information since 1969 on what American students know and what they can do. It is the nation's only ongoing, comparable, and representative assessment of student achievement. Its assessments are given to representative samples of youths attending both public and non-public schools and enrolled in grades 4, 8, and 12.

In 1988, Congress authorized a new aspect of NAEP that allowed states and territories to participate voluntarily in a trial state assessment, using samples representative of their own students, to provide state-level data comparable to the nation and each of the other participating jurisdictions. Pursuant to that law, in 1990, the mathematics achievement of public school eighth graders was assessed in 40 jurisdictions (states, territories, and the District of Columbia). The results were reported in *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States* (Washington, DC: National Center for Education Statistics, 1991). In 1992, the mathematics achievement of fourth- and eighth-grade public school students and the reading achievement of fourth-grade public school students were assessed in 44 jurisdictions. The results of these assessments were reported in *NAEP 1992 Mathematics Report Card for the Nation and the States* (Washington, DC: National Center for Education Statistics, 1993) and *NAEP 1992 Reading Report Card for the Nation and the States* (Washington, DC: National Center for Education Statistics, 1993).

For the 1994 Trial State Assessment Program, the reading achievement of fourth-grade students was again assessed in 44 jurisdictions. Forty jurisdictions involved in the 1992 assessment were also involved in the 1994 assessment. The results for Guam are reported in this document.

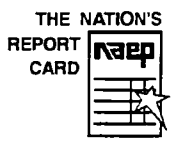
A difference between the 1994 Trial State Assessment and previous Trial State Assessments is the addition of samples of non-public school students, in addition to the public school student samples. The purpose of this addition is to provide overall state-level data for each jurisdiction that is more easily comparable to overall state-level data for the other participating jurisdictions.

Over time there have been many changes in emphasis of NAEP assessment and reporting, both to take advantage of new technologies and to reflect changing trends in education. In 1984, a new technology called Item Response Theory (IRT) made it possible to create “scale scores” for NAEP similar to those the public was accustomed to seeing for the annual Scholastic Achievement Test (SAT). The 1992 reading reports marked NCES’s continued attempt to shift to standards-based reporting. The transition was made to report NAEP results by “achievement levels.” Achievement levels describe how students should perform relative to a body of content reflected in the NAEP frameworks (i.e., how *much* students should know). The impetus for this shift was grounded in the belief that NAEP data would take on more meaning for the public if they show what proportion of our youth are able to meet standards of performance necessary for a changing world. The 1994 report continues to use the achievement levels initially implemented in 1992.

### **Assessment Content**

The objectives for the 1992 and 1994 assessments were developed through a consensus process managed by the Council of Chief State School Officers, and the items were developed through a similar process managed by Educational Testing Service. The development of the Trial State Assessment Program benefitted from the involvement of hundreds of representatives from State Education Agencies who attended numerous NETWORK meetings; served on committees; reviewed the framework, objectives, and questions; and, in general, provided important suggestions on all aspects of the program.

The reading assessment framework was a four-by-three matrix specifying four reading stances — Initial Understanding, Developing an Interpretation, Personal Reflection and Response, and Demonstrating a Critical Stance — and three reading purposes — reading for literary experience, reading to be informed, and reading to perform a task. However, the reading to perform a task category was not evaluated or reported for grade 4. Figures A.1 and A.2 describe the reading purposes and stances.



## FIGURE A.1

### *Description of Reading Purposes*

Reading involves an interaction between a specific type of text or written material and a reader who has a purpose for reading that is related to the type of text and the context of the reading situation. The 1992 and 1994 NAEP reading assessments presented three types of text to students representing each of three reading purposes: literary text for literary experience, informational text to gain information, and documents to perform a task. At grade 4, only the first two reading purposes were assessed. Each block in the assessment contains questions that assess only one reading purpose.

#### **Reading for Literary Experience**

Reading for literary experience involves reading literary text to explore the human condition, to relate narrative events with personal experience, and to consider the interplay in the selection among emotions, events, and possibilities. Students in the NAEP reading assessment were provided with a wide variety of literary texts such as short stories, poems, fables, historical fiction, science fiction, and mysteries.

#### **Reading to Gain Information**

Reading to gain information involves reading informative passages in order to obtain some general or specific information. This often requires a more utilitarian approach to reading that requires the use of certain reading/thinking strategies different from those used for other purposes. In addition, reading to gain information often involves reading and interpreting adjunct aids such as charts, graphs, maps, and tables that provide supplemental or tangential data. Informational passages in the NAEP reading assessment included biographies, science articles, encyclopedia entries, primary and secondary historical accounts, and newspaper editorials.

#### **Reading to Perform a Task**

Reading to perform a task involves reading various types of materials for the purpose of applying the information or directions in completing a specific task. The reader's purpose for gaining meaning extends beyond understanding the text to include the accomplishment of a certain activity. Documents requiring students in the NAEP reading assessment to perform a task included directions for creating a time capsule, instructions on how to write a letter to your Senator, a bus schedule, and a tax form. In 1992 and 1994, reading to perform a task was assessed only at grades 8 and 12.



1994 Trial State Assessment

**FIGURE A.2*****Description of Reading Stances***

Readers interact with text in various ways as they use background knowledge and understanding of text to construct, extend, and examine meaning. The NAEP reading assessment framework specified four reading stances to be assessed that represent various interactions between readers and texts. These stances are not meant to describe a *hierarchy* of skills or abilities. Rather, they are intended to describe behaviors that readers at all developmental levels should exhibit.

**Initial Understanding**

Initial understanding requires a broad, preliminary construction of an understanding of the text. Questions testing this aspect ask the reader to provide an initial impression or unreflected understanding of what was read. In the 1992 and 1994 NAEP reading assessments, the first question following a passage was usually one testing initial understanding.

**Developing an Interpretation**

Developing an interpretation requires the reader to go beyond the initial impression to develop a more complete understanding of what was read. Questions testing this aspect require a more specific understanding of the text and involve linking information across parts of the text as well as focusing on specific information.

**Personal Reflection and Response**

Personal response requires the reader to connect knowledge from the text more extensively with his or her own personal background knowledge and experience. The focus is on how the text relates to personal experience, and questions on this aspect ask the readers to reflect and respond from a personal perspective. For the 1992 and 1994 NAEP reading assessments, personal response questions were typically formatted as constructed-response items to allow for individual possibilities and varied responses.

**Demonstrating a Critical Stance**

Demonstrating a critical stance requires the reader to stand apart from the text, consider it, and judge it objectively. Questions on this aspect require the reader to perform a variety of tasks such as critical evaluation, comparing and contrasting, applications to practical tasks, and understanding the impact of such text features as irony, humor, and organization. These questions focus on the reader as critic and require reflection on and judgments about how the text is written.



### Assessment Design

The 1994 reading assessment was based on a *focused balanced incomplete block (BIB) spiral matrix design* — a design that enables broad coverage of reading content while minimizing the burden for any one student. The 1994 NAEP reading assessment for grades 4, 8, and 12 contained a total of 153 discrete constructed-response questions — 126 of which were short constructed-response (78 scored using a two-point scoring rubric and 48 using a three-point scoring rubric), and 27 of which were extended constructed-response questions (scored using a four-point scoring rubric). Some of the questions in the assessment were administered at more than one grade. Therefore, the sum of the number of questions administered at each grade does not equal the total number of questions in the assessment.

At grade 4, 84 reading questions were developed for the national assessment, including 37 short constructed-response questions, eight extended constructed-response questions, and 39 multiple-choice questions. These same questions were administered to the Trial State Assessment samples of grade 4 students. A subset of the grade 4 exercise pool consisted of questions that were previously administered in 1992. These “trend” questions made it possible to report the 1992 and 1994 results on a common scale.

The first step in implementing the BIB design required selecting grade-appropriate passages and developing questions to assess the four reading stances specified in the framework. The questions were assembled into units called *blocks*, with each block designed to be completed in 25 or 50 minutes. At grade 4, eight blocks were designed; they required 25 minutes of student time for completion. The blocks were assembled into assessment booklets so that each booklet contained three background questionnaires — the first consisting of general background questions, the second comprising reading background questions, and the third containing questions about the students’ motivation to do well in the assessment — and two blocks of cognitive reading questions. The questions in the first section were read aloud to the students, usually taking about 10 minutes to complete. Students were then given 50 minutes to complete two 25-minute blocks of reading questions, five minutes to complete the second background questionnaire, and three minutes to complete the third background questionnaire. Thus, the assessment required slightly over one hour of student time.

In accordance with the BIB design, the blocks were assigned to the assessment booklets so that there were a total of 16 booklets at grade 4. Blocks of cognitive reading questions were paired with blocks assessing the same purpose for reading as well as blocks assessing other purposes. (Readers should refer to the 1994 NAEP State Technical Report for a more complete discussion of the BIB design.) The booklets were spiraled or interleaved in a systematic sequence so that each booklet appeared an appropriate number of times in the sample. The students within an assessment session were assigned booklets in the order in which the booklets were spiraled. Thus, students in any given session received a variety of different booklets and only a small number of students in the session received the same booklet.

## **Participation Guidelines**

Unless the overall participation rate is sufficiently high for a jurisdiction, there is a risk that the assessment results for that jurisdiction are subject to appreciable nonresponse bias. Moreover, even if the overall participation rate is high, there may be significant nonresponse bias if the nonparticipation that does occur is heavily concentrated among certain types of schools or students. The following guidelines concerning school and student participation rates in the Trial State Assessment Program were established to address four significant ways in which nonresponse bias could be introduced into the jurisdiction sample estimates. The conditions that will result in the publication of a jurisdiction's results are presented below. Also presented below are the conditions that will result in a jurisdiction receiving a notation in the 1994 reports. Note that in order for a jurisdiction's results to be published with no notations, that jurisdiction must satisfy all guidelines.

## **Guidelines on the Publication of NAEP Results**

### ***Guideline 1 — Publication of Public School Results***

A jurisdiction will have its public school results published in the 1994 NAEP Reading Report Card if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent. Similarly, a jurisdiction will receive a separate NAEP State Report if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent.

### ***Guideline 2 — Publication of Non-Public School Results***

A jurisdiction will have its non-public school results published in the 1994 NAEP Reading Report Card if and only if its weighted participation rate for the initial sample of non-public schools is greater than or equal to 70 percent **AND** meets minimum sample size requirements.<sup>1</sup> A jurisdiction eligible to receive a separate NAEP State Report under guideline 1 will have its non-public school results included in that report if and only if that jurisdiction's weighted participation rate for the initial sample of non-public schools is greater than or equal to 70 percent **AND** meets minimum sample size requirements. If a jurisdiction meets guideline 2 but fails to meet guideline 1, a separate NAEP State Report will be produced containing only non-public school results.

### ***Guideline 3 — Publication of Combined Public and Non-Public School Results***

A jurisdiction will have its combined results published in the 1994 NAEP Reading Report Card if and only if both guidelines 1 and 2 are satisfied. Similarly, a jurisdiction eligible to receive a separate NAEP State Report under guideline 1 will have its combined results included in that report if and only if guideline 2 is also met.

<sup>1</sup> Minimum sample size requirements for reporting non-public school data consist of two components: (1) a school sample size of six or more participating schools and (2) an assessed student sample size of at least 62.

**Discussion:** If a jurisdiction's public or non-public school participation rate for the initial sample of schools is below 70 percent there is a substantial possibility that bias will be introduced into the assessment results. This possibility remains even after making statistical adjustments to compensate for school nonparticipation. There remains the likelihood that, in aggregate, the substitute schools are sufficiently dissimilar from the originals that they are replacing and represent too great a proportion of the population to discount such a difference. Similarly, the assumptions underlying the use of statistical adjustments to compensate for nonparticipation are likely to be significantly violated if the initial response rate falls below the 70 percent level. Guidelines 1, 2, and 3 take this into consideration. These guidelines are congruent with current NAGB policy, which requires that data for jurisdictions that do not have a 70 percent before-substitution participation rate be reported "in a different format" and with the Education Information Advisory Committee (EIAC) resolution, which calls for data from such jurisdictions not to be published.

#### **Guidelines on Notations of NAEP Results**

##### ***Guideline 4 — Notation for Overall Public School Participation Rate***

A jurisdiction which meets guideline 1 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.

##### ***Guideline 5 — Notation for Overall Non-Public School Participation Rate***

A jurisdiction which meets guideline 2 will receive a notation if its weighted participation rate for the initial sample of non-public schools was below 85 percent **AND** the weighted non-public school participation rate after substitution was below 90 percent.

**Discussion:** For jurisdictions that did not use substitute schools, the participation rates are based on participating schools from the original sample. In these situations, the NCES standards specify weighted school participation rates of at least 85 percent to guard against potential bias due to school nonresponse. Thus, the first part of these guidelines, referring to the weighted school participation rate for the initial sample of schools, is in direct accordance with NCES standards.

To help ensure adequate sample representation for each jurisdiction participating in the 1994 Trial State Assessment Program, NAEP provided substitutes for nonparticipating public and non-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 will be 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 will be 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 guidelines were set at 90 percent.

If a jurisdiction meets *either* standard (i.e., 85 percent or higher prior to substitution or 90 percent or higher after substitution) then there will be no notation for the relevant overall school participation rate.

***Guideline 6 — Notation for Strata-Specific Public School Participation Rate***

A jurisdiction which is not already receiving a notation under guideline 4 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 determined by degree of urbanization, minority enrollment, and median household income of the area in which the school is located.

***Guideline 7 — Notation for Strata-Specific Non-Public School Participation Rate***

A jurisdiction which is not already receiving a notation under guideline 5 will receive a notation if the nonparticipating non-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 non-public schools. The classes of schools from each of which a jurisdiction needed minimum school participation levels were determined by type of non-public school (Catholic versus non-Catholic) and location (metropolitan versus non-metropolitan).

**Discussion:** 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 is not adequately represented, it is of concern, regardless of the overall participation rate.

These guidelines address the fact that, if nonparticipating schools are concentrated within a particular class of schools, the potential for substantial bias remains, even if the overall level of school participation appears to be satisfactory. Nonresponse adjustment cells for public schools have been formed within each jurisdiction, and the schools within each cell are similar with respect to minority enrollment, degree of urbanization, and/or median household income, as appropriate for each jurisdiction. For non-public schools, nonresponse adjustment cells are determined by type and location of school.

If more than five percent (weighted) of the sampled schools (after substitution) are nonparticipants from a single adjustment cell, then the potential for nonresponse bias is too great. These guidelines are based on the NCES standard for strata-specific school nonresponse rates.

***Guideline 8 — Notation for Overall Student Participation Rate in Public Schools***

A jurisdiction which meets guideline 1 will receive a notation if the weighted student response rate within participating public schools was below 85 percent.

***Guideline 9 — Notation for Overall Student Participation Rate in Non-Public Schools***

A jurisdiction which meets guideline 2 will receive a notation if the weighted student response rate within participating non-public schools was below 85 percent.

**Discussion:** These guidelines follow the NCES standard of 85 percent for overall student participation rates. The weighted student participation rate is based on all eligible students from initially selected or substitute schools who participated in the assessment in either an initial session or a make-up session. If the rate falls below 85 percent, then the potential for bias due to students' nonresponse is too great.

***Guideline 10 — Notation for Strata-Specific Student Participation Rate in Public Schools***

A jurisdiction which is not already receiving a notation under guideline 8 will receive a notation if the nonresponding students within participating public schools included a class of students with similar characteristics, who together comprised more than five percent of the jurisdiction's weighted assessable public school student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by age of student and type of assessment session (unmonitored or monitored), as well as school level of urbanization, minority enrollment, and median household income of the area in which the school is located.



***Guideline 11 — Notation for Strata-Specific Student Participation Rate in Non-Public Schools***

A jurisdiction which is not already receiving a notation under guideline 9 will receive a notation if the nonresponding students within participating non-public schools included a class of students with similar characteristics, who together comprised more than five percent of the jurisdiction's weighted assessable non-public school student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by age of student and type of assessment session (unmonitored or monitored), as well as type and location of school.

**Discussion:** These guidelines address the fact that if nonparticipating students are concentrated within a particular class of students, the potential for substantial bias remains, even if the overall student participation level appears to be satisfactory. Student nonresponse adjustment cells have been formed using the school-level nonresponse adjustment cells, together with the student's age and the nature of the assessment session (unmonitored or monitored). If more than five percent (weighted) of the invited students who do not participate in the assessment are from a single adjustment cell, then the potential for nonresponse bias is too great. These guidelines are based on the NCES standard for strata-specific student nonresponse rates.

**Data Analysis and Scales**

Once the assessments were conducted and information from the assessment booklets had been compiled in a database, the assessment data were weighted to match known population proportions and adjusted for nonresponse. Analyses were then conducted to determine the percentages of students who gave various responses to each cognitive and background question.

For both the 1992 and 1994 assessments, item response theory (IRT) was used to estimate average reading proficiency for each jurisdiction and for various subpopulations, based on students' performance on the set of reading questions they received. IRT provides a common scale on which performance can be reported for the nation, each jurisdiction, and subpopulations, even when all students do not answer the same set of questions. Furthermore, these IRT scales provide a mechanism for comparing the reading results obtained in 1994 with those from 1992 even though there were some differences between the sets of questions that were administered in the two assessment years. This common scale makes it possible to report on relationships between students' characteristics (based on their responses to the background questions) and their overall performance on the assessment.

The results from the 1994 assessment are reported on scales ranging from 0 to 500 that were created to summarize performance for each of the two reading purposes at grade 4 (reading for literary experience and reading to gain information). The scales summarize examinee performance across all four question types used in the assessment (multiple-choice, dichotomously-scored constructed-response, regular constructed-response, and extended constructed-response). In producing the scales, three distinct IRT models were used. Multiple-choice questions were scaled using the three-parameter logistic model; dichotomously-scored constructed-response questions were scaled using the two-parameter logistic model; the regular and extended constructed-response questions were scaled using a generalized partial-credit model. Each reading purpose scale was based on the distribution of student performance across the grades assessed in the 1992 national assessment (grades 4, 8, and 12) and had a mean of 250 and a standard deviation of 50 for that reference population. A composite scale was created as an overall measure of students' reading proficiency. At grade 4, the composite scale was a weighted average of the two reading purpose scales, where the weight for each reading purpose was proportional to the relative importance assigned to that purpose in the specifications developed by the Reading Objectives Panel (55 percent for the literary experience scale and 45 percent for the gaining information scale).

#### **Questionnaires for Teachers and Schools**

As part of the Trial State Assessment Program, questionnaires were given to the reading teachers of assessed students and to the principal or other administrator in each participating school. A Background Panel drafted a set of issues and guidelines and made recommendations concerning the design of these questionnaires. For the 1992 and 1994 assessments, the teacher and school questionnaires focused on five educational areas: instructional content, instructional practices and experiences, teacher characteristics, school conditions and context, and conditions beyond school (i.e., home support, out-of-school activities, and attitudes). Similar to the development of the materials given to students, the guidelines and the teacher and school questionnaires were prepared through an iterative process that involved extensive development, field testing, and review by external advisory groups.

It is important to note that in this report, as in all NAEP reports, the student is always the unit of analysis, even when information from the teacher or school questionnaire is being reported. Having the student as the unit of analysis makes it possible to describe the instruction received by representative samples of fourth-grade students. Although this approach may provide a different perspective from that which would be obtained by simply collecting information from a sample of fourth-grade reading teachers or from a sample of schools, it is consistent with NAEP's goal of providing information about the educational context and performance of students.

The questionnaires for fourth-grade teachers consisted of two parts. The first requested information about the teacher, such as race/ethnicity and gender, as well as academic degrees held, teaching certification, training in reading, and the availability of instructional resources. In the second part, teachers were asked to provide information on each class they taught that included one or more students who participated in the Trial State Assessment Program. The information included, among other things, the extent to which worksheets or workbooks were used and the frequency with which various instructional approaches were employed. Because of the nature of the sampling for the Trial State Assessment Program, the responses to the reading teacher questionnaire do not necessarily represent all fourth-grade reading teachers in a jurisdiction. Rather, they represent the teachers of the particular students being assessed.

An extensive school questionnaire was completed by principals or other administrators in the schools participating in the Trial State Assessment Program. The school questionnaire contained questions about school policies, course offerings, and special priority areas, among other topics.

### Estimating Variability

The statistics reported by NAEP (average proficiencies, percentages of students at or above particular achievement levels, and percentages of students responding in certain ways to background questions) are *estimates* of the corresponding information for the population of fourth-grade students in public or non-public schools in a jurisdiction. These estimates are based on the performance of carefully selected, representative *samples* of fourth-grade students from the jurisdiction.

If a different representative sample of students were selected and the assessment repeated, it is likely that the estimates might vary somewhat, and both of these sample estimates might differ somewhat from the value of the mean or percentage that would be obtained if every fourth-grade public or non-public school student in the jurisdiction were assessed. Virtually all statistics that are based on samples (including those in NAEP) are subject to a certain degree of uncertainty. The uncertainty attributable to using samples of students is referred to as *sampling error*.

Like almost all estimates based on assessment measures, NAEP's total group and subgroup performance estimates are subject to a second source of uncertainty, in addition to sampling error. As previously noted, each student who participated in the Trial State Assessment Program was administered a subset of questions from the total set of questions. If each student had been administered a different, but equally appropriate, set of the assessment questions — or the entire set of questions — somewhat different estimates of total group and subgroup performance might have been obtained. Thus, a second source of uncertainty arises because each student was administered a subset of the total pool of questions.

The measures of uncertainty of the estimates of reading performance statistics reflect both sources of uncertainty discussed above. These measures of the uncertainty are called *standard errors* and are given in parentheses in each of the tables in the report. Standard errors reflecting both sampling and measurement error are reported for estimates of average proficiency and percentage of students at or above particular achievement levels. The standard errors of the other statistics (such as the percentage of students answering a background question in a certain way or the percentage of students in certain racial/ethnic groups) reflect only sampling error. NAEP uses a methodology called the jackknife procedure to estimate all of these standard errors.

The reader is reminded that, as in all surveys, NAEP results are also subject to other kinds of errors including the effects of necessarily imperfect adjustment for student and school nonresponse and other largely unknowable effects associated with the particular instrumentation and data collection methods used. Nonsampling errors can be attributed to a number of sources: inability to obtain complete information about all selected students in all selected schools in the sample (some students or schools refused to participate, or students participated but answered only certain questions); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording, coding, or scoring data; and other errors of collecting, processing, sampling, and estimating missing data. The extent of nonsampling errors is difficult to estimate. By their nature, the impact of such errors cannot be reflected in the data-based estimates of uncertainty provided in NAEP reports.

### **Drawing Inferences from the Results**

One of the goals of the Trial State Assessment Program is to make inferences about the overall population of fourth-grade students in each participating jurisdiction based on the particular sample of students assessed. The results from the sample — taking into account the uncertainty associated with all samples — are used to make inferences about the population. The use of *confidence intervals*, based on the standard errors, provides a way to make inferences about the population means and percentages in a manner that reflects the uncertainty associated with the sample estimates. An estimated sample mean proficiency  $\pm 2$  standard errors approximates a *95 percent confidence interval* for the corresponding population quantity. This means that with approximately 95 percent confidence, the average performance of the entire population of interest (e.g., all fourth-grade students in public schools in a jurisdiction) is within  $\pm 2$  standard errors of the sample mean.

As an example, suppose that the average reading proficiency of the students in a particular jurisdiction's fourth-grade sample were 256 with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

$$\begin{aligned}\text{Mean} \pm 2 \text{ standard errors} &= 256 \pm 2 \times (1.2) = 256 \pm 2.4 = \\ &256 - 2.4 \text{ and } 256 + 2.4 = (253.6, 258.4)\end{aligned}$$

Thus, one can conclude with 95 percent confidence that the average proficiency for the entire population of fourth-grade students in public schools in that jurisdiction is between 253.6 and 258.4.

Similar confidence intervals can be constructed for percentages, *provided that the percentages are not extremely large (greater than 90 percent) or extremely small (less than 10 percent)*. For extreme percentages, confidence intervals constructed in the above manner may not be appropriate and procedures for obtaining accurate confidence intervals are quite complicated.

### **Analyzing Subgroup Differences in Proficiencies and Percentages**

In addition to the overall results, this report presents outcomes separately for a variety of important subgroups. Many of these subgroups are defined by shared characteristics of students, such as their gender or race/ethnicity, and the type of location in which their school is situated. Other subgroups are defined by students' responses to background questions. Still other subgroups are defined by the responses of the assessed students' reading teachers to questions in the reading teacher questionnaire.

In Chapter 1 of this report, differences between the jurisdiction and nation were tested for overall reading proficiency and for each of the purposes for reading. In Chapter 2, significance tests were conducted for the overall proficiency for each of the subpopulations. Chapter 3 reports differences between the jurisdiction and nation for the percentage of students at or above the Proficient level, and Chapter 4 contains significance tests for the percentage of students at or above the Proficient level for each of the subpopulations. In Chapters 5-8, comparisons were made across subgroups for responses made to various background questions.



As an example, consider the question: *Do students who reported reading three or four books outside of school each month exhibit higher average reading proficiency than students who reported reading no books outside of school?*

To answer the question posed above, begin by comparing the average reading proficiency for the two groups being analyzed. If the mean for the group that reported reading three or four books outside of school is higher, it may be tempting to conclude that that group does have higher reading proficiency than the group that reported reading no books outside of school. However, even though the means differ, there may be no real difference in performance between the two groups in the population because of the uncertainty associated with the estimated average proficiency of the groups in the sample. Remember that the intent is to make a statement about the entire population, not about the particular sample that was assessed. The data from the sample are used to make inferences about the population as a whole.

As discussed in the previous section, each estimated sample mean proficiency (or percentage) has a degree of uncertainty associated with it. It is therefore possible that if all students in the population had been assessed, rather than a sample of students, or if the assessment had been repeated with a different sample of students or a different, but equivalent, set of questions, the performances of various groups would have been different. Thus, to determine whether there is a *real* difference between the mean proficiency (or percentage of a certain attribute) for two groups in the population, an estimate of the degree of uncertainty associated with the difference between the proficiency means or percentages of those groups must be obtained for the sample. This estimate of the degree of uncertainty — called *the standard error of the difference* between the groups — is obtained by taking the square of each group's standard error, summing these squared standard errors, and then taking the square root of this sum.

Similar to the manner in which the standard error for an individual group mean or percentage is used, the *standard error of the difference* can be used to help determine whether differences between groups in the population are real. The difference between the mean proficiency or percentage of the two groups  $\pm 2$  *standard errors of the difference* represents an approximate 95 percent confidence interval. If the resulting interval includes zero, there is insufficient evidence to claim a real difference between groups in the population. If the interval does not contain zero, the difference between groups is *statistically significant* (different) at the .05 level.

As another example, to determine whether the average reading proficiency of fourth-grade females is higher than that of fourth-grade males in a particular jurisdiction's public schools, suppose that the sample estimates of the mean proficiencies and standard errors for females and males were as follows:

Group	Average Proficiency	Standard Error
Female	259	2.0
Male	255	2.1

The difference between the estimates of the mean proficiencies of females and males is four points (259 - 255). The standard error of this difference is

$$\sqrt{2.0^2 + 2.1^2} = 2.9$$

Thus, an approximate 95 percent confidence interval for this difference is

$$\begin{aligned} \text{Mean difference} \pm 2 \text{ standard errors of the difference} = \\ 4 \pm 2 \times (2.9) = 4 \pm 5.8 = 4 - 5.8 \text{ and } 4 + 5.8 = (-1.8, 9.8) \end{aligned}$$

The value zero is within this confidence interval, which extends from -1.8 to 9.8 (i.e., zero is between -1.8 and 9.8). Thus, there is insufficient evidence to claim a difference in average reading proficiency between the populations of fourth-grade females and males in public schools in the jurisdiction.<sup>2</sup>

Throughout this report, when the mean proficiencies or percentages for two groups were compared, procedures like the one described above were used to draw the conclusions that are presented. If a statement appears in the report indicating that a particular group had *higher (or lower)* average proficiency than a second group, the 95 percent confidence interval for the difference between groups did not contain zero. When a statement indicates that the average proficiency or percentage of some attribute was *not significantly different* for two groups, the confidence interval included zero, and thus no difference could be assumed between the groups. The information described in this section also pertains to comparisons between 1992 and 1994. The reader is cautioned to avoid drawing conclusions solely on the basis of the magnitude of the differences. A difference between two groups in the sample that appears to be slight may represent a statistically significant difference in the population because of the magnitude of the standard errors. Conversely, a difference that appears to be large may not be statistically significant.

<sup>2</sup> The procedure described above (especially the estimation of the standard error of the difference) is, in a strict sense, only appropriate when the statistics being compared come from independent samples. For certain comparisons in the report, the groups were not independent. In those cases, a different (and more appropriate) estimate of the *standard error of the difference* was used.

The procedures described in this section, and the certainty ascribed to intervals (e.g., a 95 percent confidence interval), are based on statistical theory that assumes that only one confidence interval or test of statistical significance is being performed. However, in each chapter of this report, many different groups are being compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that the certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. To hold the certainty level for the set of comparisons at a particular level (e.g., .95), adjustments (called multiple comparison procedures) must be made to the methods described in the previous section. One such procedure — the *Bonferroni method* — was used in the analyses described in this report to form confidence intervals for the differences between groups whenever sets of comparisons were considered. Thus, the confidence intervals in the text that are based on sets of comparisons are more conservative than those described on the previous pages. A more detailed description of the use of the Bonferroni procedure appears in the 1994 NAEP State Technical Report.

### **Statistics with Poorly Estimated Standard Errors**

The standard errors for means and proportions reported by NAEP are statistics and therefore are subject to a certain degree of uncertainty. In certain cases, typically when the standard error is based on a small number of students, or when the group of students is enrolled in a small number of schools, the amount of uncertainty associated with the standard errors may be quite large. Throughout this report, estimates of standard errors subject to a large degree of uncertainty are followed by the symbol “!”. In such cases, the standard errors — and any confidence intervals or significance tests involving these standard errors — should be interpreted cautiously. Further details concerning procedures for identifying such standard errors are discussed in the 1994 NAEP State Technical Report.

### **Minimum Subgroup Sample Sizes**

Results for reading performance and background variables were tabulated and reported for groups defined by race/ethnicity, type of location, parents' education level, and gender. NAEP collects data for six racial/ethnic subgroups (White, Black, Hispanic, Asian, Pacific Islander, and American Indian/Alaskan Native), three types of locations (Central City, Urban Fringe/Large Town, and Rural/Small Town), and five levels of parents' education (Graduated College, Some Education After High School, Graduated High School, Did Not Finish High School, and I Don't Know). In the past, NAEP collected information for only five racial/ethnic subgroups, with Asian and Pacific Islander students combined into one subgroup. In addition, previous NAEP reports reported data for four types of communities, rather than for the three types of location. These types of communities were Advantaged Urban, Disadvantaged Urban, Extreme Rural, and Other types of communities.

In many jurisdictions, and for some regions of the country, the number of students in some of these groups was not sufficiently high to permit accurate estimation of performance and/or background variable results. As a result, data are not provided for the subgroups with very small sample sizes or for the subgroups with students from very few schools. For results to be reported for any Trial State Assessment Program subgroup, at least ten public schools or six non-public schools must be represented in the subgroup. For results to be reported for any National Assessment subgroup, at least five primary sampling units (PSU's) must be represented in the subgroup. In addition, a minimum sample of 62 students per subgroup was required. For statistical tests pertaining to subgroups, the sample size for both groups had to meet the minimum sample size requirements.

The minimum sample size of 62 was determined by computing the sample size required to detect an effect size of .5 total-group standard deviation units with a probability of .8 or greater. The effect size of .5 pertains to the *true* difference between the average proficiency of the subgroup in question and the average proficiency for the total fourth-grade public school population in the jurisdiction, divided by the standard deviation of the proficiency in the total population. If the *true* difference between subgroup and total group mean is .5 total-group standard deviation units, then a sample size of at least 62 is required to detect such a difference with a probability of .8. Further details about the procedure for determining minimum sample size appear in the 1994 NAEP State Technical Report.

### **Describing the Size of Percentages**

Some of the percentages reported in the text of the report are given qualitative descriptions. For example, the number of students being taught by teachers with master's degrees in education might be described as "relatively few" or "almost all," depending on the size of the percentage in question. Any convention for choosing descriptive terms for the magnitude of percentages is to some degree arbitrary. The descriptive phrases used in the report and the rules used to select them are shown on the following page.

Percentage	Description of Text in Report
$p = 0$	None
$0 < p \leq 8$	A small percentage
$8 < p \leq 13$	Relatively few
$13 < p \leq 18$	Less than one fifth
$18 < p \leq 22$	About one fifth
$22 < p \leq 27$	About one quarter
$27 < p \leq 30$	Less than one third
$30 < p \leq 36$	About one third
$36 < p \leq 47$	Less than half
$47 < p \leq 53$	About half
$53 < p \leq 64$	More than half
$64 < p \leq 71$	About two thirds
$71 < p \leq 79$	About three quarters
$79 < p \leq 89$	A large majority
$89 < p < 100$	Almost all
$p = 100$	All

### Changes to Student, Teacher, and School Questionnaire Items Between 1992 and 1994

As described in Part Three of this report, some of the questions asked of students, teachers, and schools in 1992 about students' instructional experiences were either reformatted and/or reworded for the 1994 assessment. Although this allowed for more precise and relevant data collection, it was not possible to report trend results on those particular questions. Furthermore, some questions were reworded substantially so as to warrant the reporting of only 1994 results. This section describes the nature of the changes that precluded making trend comparisons, and in some cases precluded reporting the 1992 results. Also, the specific questionnaire items reported in this publication that were reformatted and/or reworded are identified.

***Questions for which 1992 and 1994 results are reported, but trend comparisons are not made.*** One change between the 1992 and 1994 teacher questionnaires at grade 4 was the reformatting of questions from a five-column response format to a single question format. With the five-column format used in 1992, teachers were asked to identify in which period or periods (of up to 5 class periods) they taught students who participated in the NAEP reading assessment. They were then asked to describe the instructional approaches they used for each class period in which they had a student taking part in the assessment. This allowed teachers to describe different instructional approaches that may have been used for up to 5 different reading classes, if in fact their approach varied across groups of students. For 1994, the teacher questionnaire was revised so that teachers were only asked to respond once to each question in terms of their typical approach, or the one they use most often with all of their students. This change was made in the grade 4 teacher questionnaire out of recognition that most teachers at this level teach self-contained classes.



Although in most cases, the wording did not change or changed minimally, it was determined that the reformatting of the questionnaires and the refocusing of teachers' responses from specific approaches for individual class periods to typical approaches across classes, constituted enough change to preclude comparing responses between the two assessments. Because the wording changes were minimal, data are reported from both assessments — but trend comparisons were not conducted. Of the items reported in this publication, the following were either reformatted or were reworded minimally:

**1992 Version**

**1994 Version**

*Has your school identified any of the following subjects as a priority in the last two years (i.e., does the subject receive special emphasis in schoolwide goals and objectives, instruction, in-service training, etc.)?*

*Has your school identified any of the following subjects as a priority in the last two years (i.e., does the subject receive special emphasis in schoolwide goals and objectives, instruction, workshops, etc.)?*

- Reading
- Writing
- Mathematics
- Integration of separate subjects

- Reading
- Mathematics
- Science
- U.S. history
- World geography
- Integration of separate subjects

(five-column formatting)

(single-column formatting)

*Are students assigned to this class by ability?*

*Are students assigned to this class by ability?*

- Yes
- No

- Yes
- No

(five-column formatting)

(single-column formatting)

*About how much time do you spend with this class for reading instruction on a typical day?*

*About how much time do you spend with this class for reading instruction on a typical day?*

- 30 minutes
- 45 minutes
- 60 minutes
- 90 minutes or more

- 30 minutes
- 45 minutes
- 60 minutes
- 90 minutes or more

(five-column formatting)

*What type of materials form the core of your reading program?*

- Primarily basal
- Primarily trade books
- Both basal and trade books
- Other

(five-column formatting)

*How often do you [teacher] use the following resources to teach reading in this class?*

- Children's newspapers and/or magazines
- Reading kits
- Computer software for reading instruction
- A variety of books (e.g., novels, collections of poetry, nonfiction)
- Materials from other subject areas

(five-column formatting)

*How often do you [teacher] do the following things as a part of reading instruction with this class?*

- Ask students to work in a reading workbook or on a worksheet
- Ask students to write about something they have read
- Discuss new or difficult vocabulary
- Ask students to talk with each other about what they have read
- Ask students to do a group activity or project about what they have read
- Ask students to read aloud
- Ask students to read silently

*When you [student] read in school, how often does your teacher do each of the following?*

- Ask you to read silently
- Give you time to read books you have chosen yourself

(single-column formatting)

*What type of materials form the core of your reading program?*

- Primarily basal
- Primarily trade books
- Both basal and trade books
- Other

(single-column formatting)

*How often do you [teacher] use the following resources to teach reading in this class?*

- Children's newspapers and/or magazines
- Reading kits
- Computer software for reading instruction
- A variety of books (e.g., novels, collections of poetry, nonfiction)
- Materials from other subject areas

(single-column formatting)

*How often do you [teacher] do the following things as a part of reading instruction with this class?*

- Ask students to work in a reading workbook or on a worksheet
- Ask students to write about something they have read
- Discuss new or difficult vocabulary
- Ask students to talk with each other about what they have read
- Ask students to do a group activity or project about what they have read
- Ask students to read aloud
- Ask students to read silently

*When you [student] have reading assignments in school, how often does your teacher do each of the following?*

- Ask you to read silently
- Give you time to read books you have chosen yourself

(five-column formatting)

*How often do you [teacher] do each of the following with the students in this class?*

- Send or take the class to the library
- Assign students to read a book from the library

(single-column formatting)

*How often do you [teacher] do each of the following with the students in this class?*

- Send or take the class to the library
- Assign students to read a book from the library

(five-column formatting)

*How often do you use each of the following to assess student progress in reading?*

- Multiple-choice tests
- Reading portfolios

(single-column formatting)

*How often do you use each of the following to assess student progress in reading?*

- Multiple-choice tests
- Reading portfolios

*During the last year, how much time in total have you spent on in-service education in reading or the teaching of reading?*

*Include attendance at professional meetings and conferences, workshops, and courses.*

- None
- Less than 6 hours
- 6-15 hours
- 16-35 hours
- More than 35 hours

*During the last year, how much time in total have you spent in staff development workshops or seminars in reading or the teaching of reading? Include attendance at*

*professional meetings and conferences, workshops, and college or university courses.*

- None
- Less than 6 hours
- 6-15 hours
- 16-35 hours
- More than 35 hours

***Questions for which only 1994 results are presented.*** In other cases, the actual wording of the item was changed sufficiently to preclude trend reporting. Because of the substantial wording changes, 1992 results for these questions are not presented in this report. Of the items reported in this publication, the following were reworded substantially between 1992 and 1994.

1992 Version

1994 Version

*When you [student] read in school, how often does your teacher do each of the following?*

- Ask students to talk to each other about what they have read
- Ask students to do a group activity or project about what they have read
- Ask students to read aloud

(five-column formatting)

*How often do you [teacher] do the following things as a part of reading instruction with this class?*

- Provide time to have students read books of their own choosing

(five-column formatting)

*How often do you [teacher] do each of the following to assess student progress in reading?*

- Writing paragraphs about what they have read

*What is the highest academic degree you [teacher] hold?*

- Less than a bachelor's degree
- Bachelor's degree
- Master's degree
- Educational specialist's or professional diploma based on at least one year's work past master's degree
- Doctorate
- Professional degree (e.g., M.D., LL.B., J.D., D.D.S.)

*When you [student] have reading assignments in school, how often does your teacher do each of the following?*

- Ask you to talk to other students about what you have read
- Ask you to do a group activity or project about what you have read
- Ask you to read aloud

(single-column formatting)

*How often do you [teacher] do the following things as a part of reading instruction with this class?*

- Give students time to read books they have chosen themselves

(single-column formatting)

*How often do you [teacher] do each of the following to assess student progress in reading?*

- Paragraph length written responses about what students have read

*What is the highest academic degree you [teacher] hold?*

- High-school diploma
- Associate's degree/vocational certification
- Bachelor's degree
- Master's degree
- Education specialist's or professional diploma based on at least one year's work past master's degree
- Doctorate
- Professional degree (e.g., M.D., LL.B., J.D., D.D.S.)

*What type of teaching certification do you [teacher] have that is recognized by the state in which you teach?*

- None, temporary, probational, provisional, or emergency certification
- Regular certification but lower than the highest available certification
- The highest certification available

*What type of teaching certification do you [teacher] have that is recognized by the state in which you teach?*

- None
- Temporary, probational, provisional, or emergency certification
- Regular certification but less than the highest available
- The highest certification available (permanent or long term)

*What were your undergraduate major fields of study?*

- Education
- English, reading, and/or language arts
- Mathematics
- Mathematics education
- Other

*What were your undergraduate major fields of study?*

- Education
- English
- Reading and/or language arts
- Geography
- History
- Social Studies education
- Other

*What were your graduate major fields of study?*

- Education
- English, reading and/or language arts
- Mathematics
- Mathematics education
- Other
- No graduate-level study

*What were your graduate major fields of study?*

- Education
- English
- Reading and/or language arts
- Geography
- History
- Social Studies education
- Other
- No graduate-level study

### **Revisions to the 1992 and 1994 Findings**

In April 1995, results from the 1994 National and Trial State Assessment of reading were released as part of the report *NAEP 1994 Reading: A First Look*. Subsequently, ETS/NAEP discovered an error in the documentation for the ETS program used to compute NAEP scale score results. The error affected how omitted responses were treated in the IRT scaling of the extended constructed-response questions that received partial-credit scoring. The error affected only those questions; omitted multiple-choice and omitted short constructed responses were treated appropriately.



The conventional treatment in NAEP subjects has been to treat omitted responses (blank responses to a question that are followed by valid responses to questions that appear later in the block) as the lowest possible score category in the production of NAEP scale scores. In contrast, not-reached responses (blank responses that are not followed by any further student responses) are treated as missing data. As a result of the documentation error, for a number of the polytomous constructed-response questions and across several subject areas, *all* blank responses (both omitted and not-reached responses) to affected questions were treated as missing — an *acceptable* treatment but *not* the *conventional* option of choice for NAEP.

The error affected a number of the NAEP scales constructed since 1992. Specifically, the 1992 and 1994 national and state reading results were affected by the error. Results from these two assessments have been released to the public in a number of NAEP publications. The 1992 data are also available to the public through NCES's secondary-use data files.

It should be noted that this processing error also impacted the location of the National Assessment Governing Board (NAGB) achievement levels in reading, which were set on the 1992 scales.

NCES and ETS felt that the most technically correct plan of action would be to recalculate all affected NAEP scales, no matter how slight the change, and to issue revised results. ETS was therefore instructed by NCES to recalculate all affected scales and to work with American College Testing (ACT) in the recomputation of the achievement level cutpoints.

In recomputing the cutpoints, an additional error was discovered in the procedures used by ACT in 1992 to “map” the achievement level cutpoints onto the NAEP scale. The procedures contained an incorrectly derived formula. ACT used revised procedures with the correct formula to map the achievement level cutpoints for the 1994 history and geography scales. However, the error in the earlier procedures did affect achievement level cutpoints for reading, which were established during the 1992 assessment. The 1992 national and state reading achievement level results were further impacted by this additional error.

A new version of the *NAEP 1994 Reading: A First Look* report, containing the revised reading results, was issued by NCES in the fall of 1995. The main release of NAEP reading results, including the *Reading Report Card*, *Cross-state Data Compendium*, individual state reports, almanacs, technical report, and data files, originally scheduled for the end of September, took place instead in late fall.

While some *small* changes in scale score results were found, the revised numbers for reading are quite similar to the results released in 1992 and to those published in the NCES April release of the reading *First Look* report. More specifically, the revised reading results are *substantively equivalent* to the originally published 1992 results and to the results released in the *First Look*. Regarding the 1992 and 1994 national assessment data, fourth-grade results are about 1 point lower than originally reported, while twelfth-grade results are about 1 point higher. These changes are small and not substantively meaningful. The eighth-grade numbers are essentially unchanged. The revised numbers indicate the same relative distances between reporting subgroups (*i.e.*, race/ethnicity subgroups, male, female, etc.). The significant national score decline at grade 12 is totally unaffected by the revision, as is the absence of significant changes at grades 4 and 8.

With regard to the state assessment data, all jurisdictions were affected to roughly the same degree. Thus, the revised rank ordering of state performance in both 1992 and 1994 is essentially identical to that originally published. Original and revised trend results (*i.e.*, the change in scores between 1992 and 1994) are extremely close for all the jurisdictions. However, in four instances (for Massachusetts, New Jersey, Utah, and California), the small changes engendered by the revision are sufficient to affect the statistical significance of the change. For Massachusetts, New Jersey, and Utah, the revised decline in scores is between 0.3 and 0.5 points smaller than the originally released results — a magnitude of change that was typical across *all* participants. When rounded to an integer, the original and revised declines for Massachusetts and New Jersey are of identical size and the decline for Utah went from 4 points to 3 points. Despite this similarity, the revised results for these states are no longer statistically significant since the original results were right on the margin of statistical significance. In California, the revised decline in scores is 0.4 points larger than the originally released results and is now statistically significant.

In the results for state assessment achievement levels, there is little difference in the revised and original numbers from an interpretive standpoint. As expected, correction of the ACT error generally results in lower achievement level cutpoints and, hence, slightly higher percentages above the various cutpoints. The revised achievement level results in this technical report and in the reading reports reflect the change in the formula used in setting the achievement levels.

There is one notable aspect of the revised state assessment achievement level results. Prior to the revision, only one state, Arizona, had shown a statistically significant increase from 1992 to 1994 in the percentage of students at the *Advanced* level. Based on the revised results, six more states — Connecticut, Florida, Kentucky, Maine, Mississippi, and Maryland — also showed a statistically significant increase at that level.

APPENDIX B

## Reading Stimuli

This appendix contains replications of two of the eight reading passages used as the stimuli at grade 4.

# SYBIL SOUNDS THE ALARM

by Drollene P. Brown

A red sky at night does not usually cause wonder. But on the evening of April 26, 1777, the residents of Ludingtons' Mills were concerned. The crimson glow was in the east, not from the west where the sun was setting.

The Ludington family sat at supper, each one glancing now and again toward the eastern window. Sybil, at sixteen the oldest of eight children, could read the question in her mother's worried eyes. Would Henry Ludington have to go away again? As commander of the only colonial army regiment between Danbury, Connecticut, and Peekskill, New York, Sybil's father did not have much time to be with his family.

Thudding hooves in the yard abruptly ended their meal. The colonel pushed back his chair and strode to the door. Although Sybil followed him with her

eyes, she dutifully began to help her sister Rebecca clear the table.

The girls were washing dishes when their father burst back into the room with a courier at his side.

"Here, Seth," said the colonel, "sit you down and have some supper. Rebecca, see to our weary friend."

Sybil, glancing over her shoulder, saw that the stranger was no older than she. A familiar flame of indignation burned her cheeks. Being a girl kept her from being a soldier!

Across the room, her parents were talking together in low tones. Her father's voice rose.

"Sybil, leave the dishes and come here," he said.

Obedying quickly, she overheard her father as he again spoke to her mother.



“Abigail, she is a skilled rider. It is Sybil who has trained Star, and the horse will obey her like no other.”

“That red glow in the sky,” Colonel Ludington said, turning now to his daughter, “is from Danbury. It’s been burned by British raiders. There are about two thousand Redcoats, and they’re heading for Ridgefield. Someone must tell our men that the lull in the fighting is over; they will have to leave their families and crops again.”

“I’ll go! Star and I can do it!” Sybil exclaimed. She faced her mother. “Star is sure of foot, and will carry me safely.”

“There are dangers other than slip-

pery paths,” her mother said, softly. “Outlaws or deserters or Tories or even British soldiers may be met. You must be wary in a way that Star cannot.”

A lump rose in Sybil’s throat. “I can do it,” she declared.

Without another word, Abigail Ludington turned to fetch a woolen cape to protect her daughter from the wind and rain. One of the boys was sent to saddle Star, and Sybil was soon ready. When she had swung up on her sturdy horse, the colonel placed a stick in her hand.

As though reciting an oath, she repeated her father’s directions: “Go south by the river, then along Horse



Pond Road to Mohopac Pond. From there, turn right to Red Mills, then go north to Stormville.” The colonel stood back and saluted. She was off!

At the first few isolated houses, windows or doors flew open as she approached. She shouted her message and rode on. By the time she reached the first hamlet, all was dark. There were many small houses there at the edge of Shaw’s Road, but everyone was in bed. Lights had not flared up at the sound of Star’s hoofbeats. Sybil had not anticipated this. Biting her lower lip, she pulled Star to a halt. After considering for a moment, she nudged the horse forward, and riding up to one cottage after another, beat on each door with her stick.

“Look at the sky!” she shouted. “Danbury’s burning! All men muster at Ludingtons’!”

At each village or cluster of houses, she repeated the cry. When lights began to shine and people were yelling and moving about, she would spur her horse onward. Before she and Star melted into the night, the village bells would be pealing out the alarm.

Paths were slippery with mud and wet stones, and the terrain was often hilly and wooded. Sybil’s ears strained for sounds of other riders who might try to steal her horse or stop her mission. Twice she pulled Star off the path while unknown

riders passed within a few feet. Both times, her fright dried her mouth and made her hands tremble.

By the time they reached Stormville, Star had stumbled several times, and Sybil’s voice was almost gone. The town’s call to arms was sounding as they turned homeward. Covered with mud, tired beyond belief, Sybil could barely stay on Star’s back when they rode into their yard. She had ridden more than thirty miles that night.

In a daze, she saw the red sky in the east. It was the dawn. Several hundred men were milling about. She had roused them in time, and Ludington’s regiment marched out to join the Connecticut militia in routing the British at Ridgefield, driving them back to their ships on Long Island Sound.

Afterward, General George Washington made a personal visit to Ludingtons’ Mills to thank Sybil for her courageous deed. Statesman Alexander Hamilton wrote her a letter of praise.

Two centuries later visitors to the area of Patterson, New York, can still follow Sybil’s route. A statue of Sybil on horseback stands at Lake Gleneida in Carmel, New York, and people in that area know well the heroism of Sybil Ludington. In 1978, a commemorative postage stamp was issued in her honor, bringing national attention to the heroic young girl who rode for independence.

From *Cobblestone’s* September, 1983, issue: “Patriotic Tales of the American Revolution.” Copyright 1983, Cobblestone Publishing Inc., Peterborough, NH 03548. Reprinted by permission of the publisher.

HUNGRY SPIDER AND THE TURTLE

by Harold Courlander and George Herzog

Spider was a hungry one, he always wanted to eat. Everybody in Ashanti knew about his appetite. He was greedy, too, and always wanted more than his share of things. So people steered clear of Spider.

But one day, a stranger came to Spider's habitation out in the back country. His name was Turtle. Turtle was a long way from his home. He had been walking all day in the hot sun, and he was tired and hungry. So Spider had to invite Turtle into his house and offer him something to eat. He hated to do it, but if he didn't extend hospitality to a tired traveler it would get back around the countryside and people would soon be talking about Spider behind his back.

So he said to Turtle:

"There is water at the spring for you to wash your feet in. Follow the trail and you'll get there. I'll get the dinner ready."

Turtle turned and waddled down to the spring with a gourd bowl as fast as he could. He dipped some water from the spring and carefully washed his feet in it. Then he waddled back up the trail to the house. But the trail was dusty. By the time Turtle got back to the house his feet were covered with dirt again.

Spider had the food all set out. It was steaming, and the smell of it made Turtle's mouth water. He hadn't eaten since sunrise. Spider looked disapprovingly at Turtle's feet.

"Your feet are awfully dirty," he said. "Don't you think you ought to wash them before you start to eat?"

Turtle looked at his feet. He was ashamed, they were so dirty. So he turned around and waddled as fast as he could down to the spring again. He dipped some water out of the spring with the gourd bowl and carefully washed himself. Then he scurried as fast as he could back to the house. But it takes a turtle a while to get anywhere. When he came into the house Spider was already eating.

"Excellent meal, isn't it?" Spider said. He looked at Turtle's feet with disapproval. "Hm, aren't you going to wash yourself?"

Turtle looked down at his feet. In his hurry to get back he had stirred up a lot of dust, and his feet were covered with it again.

"I washed them," he said. "I washed them twice. It's your dusty trail that does it."

"Oh," Spider said, "so you are abusing my house now!" He took a big mouthful of food and chewed it up, looking very hurt.

"No," Turtle said, sniffing the food. "I was just explaining."

"Well, run along and wash up so we can get on with the eating," Spider said.

Turtle looked. The food was already half gone and Spider was eating as fast as he could.

Turtle spun around and hurried down to the spring. He dipped up some water in the gourd bowl and splashed it over his feet. Then he scrambled back to the house. This time he didn't go on the trail, though, but on the grass and through the bushes. It took him a little longer, but he didn't get dust all over his feet. When he got to the house he found Spider licking his lips.

"Ah, what a fine meal we had!" Spider said.

Turtle looked in the dish. Everything was gone. Even the smell was gone. Turtle was very hungry. But he said nothing. He smiled.

"Yes, it was very good," he said. "You are certainly good to travelers in your village. If you are ever in my country you may be assured of a welcome."

"It's nothing," Spider said. "Nothing at all."

Turtle went away. He didn't tell other people about the affair at Spider's house. He was quiet about his experience there.

But one day many months later Spider was a long distance from home and he found himself in Turtle's country. He found Turtle at the shore of the lake getting a sunbath.

"Ah, friend Spider, you are far from your village," Turtle said. "Will you have something to eat with me?"

"Yes, that is the way it is when a person is far from home — generosity merits generosity," Spider said hungrily.

"Wait here on the shore and I'll go below and prepare the food," Turtle said. He slipped into the water and went down to the bottom of the lake. When he got there he set out the food to eat. Then he came to the top of the water and said to Spider, who was sitting impatiently on the shore, "All right, everything is ready. Let's go down and eat." He put his head under water and swam down.

Spider was famished. He jumped into the water to follow Turtle. But Spider was very light. He floated. He splashed and splashed, kicked and kicked, but he stayed right there on top of the water. For a long time he tried to get down where Turtle was eating, but nothing happened.

After a while Turtle came up, licking his lips.

"What's the matter, aren't you hungry?" he said. "The food is very good. Better hurry." And he went down again.

Spider made one more desperate try, but he just floated. Then he had an idea. He went back to the shore, picked up pebbles and put them in his pockets of his jacket. He put so many pebbles in his pockets that he became very heavy. He was so heavy he could hardly walk. Then he jumped into the water again, and this time he sank to the bottom, where Turtle was eating. The food was half gone. Spider was very hungry. He was just reaching for the food when Turtle said politely:

“Excuse me, my friend. In my country we never eat with our jackets on. Take off your jacket so that we can get down to business.”

Turtle took a great mouthful of food and started chewing. In a few minutes there wouldn't be anything left. Spider was aching all over with hunger. Turtle took another mouthful. So Spider wriggled out of his coat and grabbed at the food. But without the pebbles he was so light again that he popped right up to the top of the water.

People always say that one good meal deserves another.

Harold Courlander: “Hungry Spider and the Turtle”,  
from *The Cow-Tail Switch and Other West African Stories*.  
Copyright © 1987 by Henry Holt and Company, Inc.  
Reprinted by permission of the publisher.

## APPENDIX C

## Setting the Achievement Levels

Setting achievement levels is a test-centered method for setting standards on the NAEP assessment that identifies what students should know and should be able to do. The method depends on securing and summarizing a set of judgmental ratings of expectations for student educational performance on the items comprising the NAEP reading assessment. The NAEP proficiency scale is a numerical index of students' performance in reading ranging from 0 to 500. The three achievement levels — Basic, Proficient, and Advanced — are mapped onto the scale for each grade level assessed.

In developing the threshold values for the levels, a broadly constituted panel of judges — including teachers (55 percent), non-teacher educators (15 percent), and the general public (non-educators)<sup>1</sup> (30 percent) — rated a grade-specific item pool using the Board's policy definitions for Basic, Proficient, and Advanced. The policy definitions were operationalized by the judges in terms of specific reading skills, knowledge, and behaviors that were judged to be appropriate expectations for students in each grade, and were in accordance with the current reading assessment framework. The policy definitions are as follows:

### *Basic*

This level denotes partial mastery of the prerequisite knowledge and skills that are fundamental for proficient work at each grade.

### *Proficient*

This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter including subject-matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate to the subject matter.

### *Advanced*

This higher level signifies superior performance beyond proficient grade-level mastery at grades 4, 8, and 12.

The judges' operationalized definitions were incorporated into lists of descriptors that represented what borderline students should be able to do at each of the policy levels. The purpose of having panelists develop their own operational definitions of the achievement levels was to ensure that all panelists would have a common understanding of borderline performances and a common set of content-based referents to use during the item-rating process.

<sup>1</sup> Non-educators represented business, labor, government service, parents, and the general public.



For the multiple-choice (MC) and short constructed-response (SCR) items that were scored correct/incorrect, the judges (22 at grade 4) each rated half of the items in the NAEP pool. These items were rated in terms of the expected probability that a student at a borderline achievement level would answer the item correctly, based on the judges' operationalization of the policy definitions and the factors that influence item difficulty. To assist the judges in generating consistently-scaled ratings, the rating process was repeated twice, with feedback. Information on consistency among different judges and on the difficulty of each item<sup>2</sup> was included in the first repetition (round 2), while information on consistency within each judge's set of ratings was included in the second repetition (round 3). The third round of ratings permitted the judges to discuss their ratings among themselves to resolve problematic ratings. The mean final rating of the judges aggregated across MC and SCR items yielded the threshold values for these items in the percent correct metric. These cut scores were then mapped onto the NAEP scale (which is defined and scored using item response theory, rather than percent correct). For extended constructed-response (ECR) items, judges were asked to select student papers that exemplified performance at the cutpoint of each achievement level. Then for each achievement level, the mean of the scores assigned to the selected papers was mapped onto the NAEP scale in a manner similar to that used for the items scored correct/incorrect. The final cut score for each achievement level was a weighted average of the cut score for the MC and SCR items and the cut score for the ECR items, with the weights being proportional to the information supplied by the two classes of items. The judges' ratings, in both metrics, and their associated errors of measurement are shown below.



1994 Trial State Assessment

**TABLE C.1***Cutpoints for Achievement Levels at Grade 4*

Level	Mean Percent Correct – MC & SCR (Round 3)	Mean Paper Rating – ECR (Round 3)	Scale Score*	Standard Error of Scale Score**
Basic	38	2.72	208	3.6
Proficient	62	3.14	238	1.4
Advanced	80	3.48	268	6.1

\* Scale score is derived from a weighted average of the mean percent correct (for MC and SCR items) and the mean paper rating for the ECR items after both were mapped onto the NAEP scale.

\*\* The standard error of the scale score is estimated from the difference in mean scale scores for the two equivalent subgroups of judges.

<sup>2</sup> Item difficulty estimates were based on a preliminary, partial set of responses to the national assessment.

### **Revised Achievement Levels Cut Scores and Student Performance Estimates**

The revised achievement levels cut scores and the revised percentage of students at or above each level for both 1992 and 1994 are presented in Chapter 3. These new estimates were required when it was discovered that there was an error in the program used to develop the levels. In deriving the final levels, panelists' ratings for the multiple-choice and constructed-response items were combined to obtain an overall rating for the items. This combination was weighted according to the amount of information provided by each type of item, that is, some items "count more" toward the overall cut scores than others. The weighting was carried out incorrectly, thus resulting in the erroneous estimates in the *NAEP 1992 Reading Report Card*, the NAEP 1992 state reading reports, and the *NAEP 1994 Reading: A First Look* report.

The process for developing the levels in 1992 remains unchanged and is accurately described in this Appendix, except for the step for deriving the final cut scores using a weighted average of the mean percent correct (for MC and SCR items) and the mean paper rating for the ECR items. The data in Chapter 3 have been corrected to reflect the correct weighting procedure, as has Table C.1, which displays the new cut scores.

### **Achievement Level Exemplar Items**

The purpose of providing exemplar exercises is to provide readers with a sample of the kind of skills and knowledge that students reaching the achievement levels are likely to be able to respond to successfully. They are meant also to represent the kind of knowledge and skills embodied in the reading framework.

The selection of exemplar items for the 1994 reading assessment augment the 1992 exemplars by providing three additional passages (one for each grade level) and 13 additional exercises associated with the passages. The choice was made on the basis of criteria similar to those used in 1992,<sup>3</sup> with one additional selection criterion, namely, item format. Since the percent of constructed-response items increased by approximately 10% over the 1992 assessment, the choice of 1994 exemplars reflects this focus.

It should be noted that although some exemplars are associated with performance data from the 1992 and 1994 assessments (overall and conditional p-values), others have only 1992 performance estimates since they were released items in 1992 and not readministered in 1994. However, they are all reflective of the assessment framework.

In Chapter 3, Figure 3.1 provides the final description of the three achievement levels for grade 4. Exemplar items, illustrating what students at each level should know and be able to do, are included in Chapter 3 as well. The descriptions of the levels apply to the framework that underlies the 1992 and 1994 NAEP reading assessments. The exemplar items reflective of the levels have been updated to reflect both the 1992 and 1994 item pools. Table 3.1 in Chapter 3 provides the percentage of students at or above each of the three levels and the percentage of students below the Basic level.

<sup>3</sup> In 1992, both statistical and content criteria were used by the panelists in selecting the best exemplars from the released item pool. A description of this process can be found in Appendix C of the 1992 state reports and in the *Technical Report of the 1992 NAEP Trial State Assessment Program*.

### Reading “Revisit” Study

American College Testing, the NAEP standard-setting contractor, conducted a study to examine the congruence between the reading performance and the descriptions of reading performance embodied in the levels, within the context of the reading assessment framework. The purpose of the study was *not* to set new levels, nor was it to develop new achievement level descriptions. Rather, the “revisit” was designed to evaluate the descriptions of the 1992 achievement levels with respect to their appropriateness vis-a-vis student performance on the NAEP. Two methodologies were used: (1) evaluation of the achievement level descriptions via statistical item mappings; and (2) evaluation of the descriptions via judgmental item mappings.

In the first procedure the NAEP exercises were classified according to the probability of a correct response at selected points on the NAEP scale. One half of the panelists then examined the items falling into each category to judge whether the exercise content corresponded to the descriptions of those levels. In the second procedure, the other half of the panelists were asked to classify each exercise as *Basic*, *Proficient*, or *Advanced* according to whether the item matched the description for the level. Once all the items were classified by all panelists, they were asked to evaluate the extent to which the descriptors represented the skills and knowledge covered by the assessment.

After both an independent and a joint evaluation of the descriptors by panelists in both groups to determine whether the 1992 descriptors were appropriate for reporting performance on the 1994 NAEP reading assessment, the panelists were asked to recommend specific changes in the descriptors. Based on the findings of this study, it was the consensus of the participants that the descriptors used in 1992 were, in general, appropriate and consistent with the NAEP Reading Framework and the 1994 NAEP reading assessment results. However, the panelists recommended minor modifications in the descriptors. Their recommendations are reflected in the 1994 Student Performance Level descriptors.

APPENDIX D

## Data Appendix

For each of the tables in Part Three that presents reading proficiency results, this appendix contains corresponding data for each level of the three reporting subpopulations — race/ethnicity, parents' education level, and gender — as well as for each school type — public, non-public, and combined.



TABLE D5.2

*Public School Teachers' Reports on Time Spent  
Teaching Reading*

	45 Minutes or Less		60 Minutes		90 Minutes or More	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	28 (1.1)	41 (1.0)	43 (0.9)	34 (0.8)	30 (1.1)	25 (1.0)
Nation	181 (2.2)	179 (1.6)	187 (2.0)	182 (2.1)	174 (2.2)	181 (2.4)
	29 (3.2)	37 (2.5)	52 (3.4)	44 (2.7)	19 (1.8)	19 (1.9)
	216 (2.2)	215 (2.1)	217 (1.8)	217 (1.8)	213 (2.5)	200 (4.0)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	23 (2.5)	55 (5.1)	46 (2.8)	30 (5.1)	31 (2.7)	15 (3.3)
Nation	*** (***)	190 (5.9)	198 (3.9)	*** (***)	188 (6.2)	*** (***)
	29 (3.6)	39 (3.0)	55 (3.7)	49 (3.2)	16 (1.9)	12 (2.1)
	222 (2.6)	223 (2.6)	223 (1.9)	223 (1.9)	224 (2.8)	221 (3.3)
<b>Black</b>						
Guam	29 (5.7)	42 (7.5)	48 (5.6)	34 (6.2)	24 (5.1)	24 (6.5)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	30 (4.0)	34 (3.4)	41 (4.2)	26 (4.6)	29 (4.3)	40 (4.6)
	195 (3.2)	191 (3.1)	194 (2.7)	191 (2.6)	193 (3.2)	180 (2.9)
<b>Hispanic</b>						
Guam	30 (2.4)	32 (2.7)	41 (2.5)	44 (3.1)	29 (2.1)	24 (2.0)
Nation	164 (4.2)	168 (5.3)	176 (5.2)	168 (4.0)	147 (4.8)	175 (5.7)
	28 (4.0)	30 (4.2)	49 (5.3)	42 (4.8)	24 (4.0)	28 (2.6)
	202 (5.6)	191 (4.5)	202 (2.9)	193 (2.7)	199 (3.5)	184 (4.8)
<b>Asian</b>						
Guam	— (—)	31 (6.4)	— (—)	35 (5.9)	— (—)	33 (7.3)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	34 (6.7)	— (—)	38 (6.1)	— (—)	28 (7.2)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	42 (1.3)	— (—)	32 (1.4)	— (—)	26 (1.4)
Nation	— (—)	180 (1.7)	— (—)	188 (2.2)	— (—)	183 (2.8)
	— (—)	30 (8.9)	— (—)	29 (9.3)	— (—)	41 (6.7)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D5.2 (continued)

Public School Teachers' Reports on Time Spent Teaching Reading

1994 Trial State Assessment

	45 Minutes or Less		60 Minutes		90 Minutes or More	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	24 (1.5)	36 (2.3)	46 (2.1)	36 (1.9)	30 (2.0)	27 (1.7)
Nation	182 (3.2)	182 (3.5)	186 (2.8)	184 (3.4)	175 (4.0)	186 (3.9)
	29 (3.0)	37 (2.7)	52 (3.5)	44 (2.8)	19 (2.1)	19 (2.7)
	222 (3.3)	226 (2.1)	226 (2.6)	226 (2.4)	223 (3.3)	211 (5.2)
<b>Some ed after HS</b>						
Guam	28 (3.6)	40 (5.0)	37 (5.1)	34 (4.1)	35 (3.9)	26 (4.7)
Nation	27 (4.6)	45 (4.4)	54 (5.2)	42 (4.1)	19 (2.8)	13 (2.0)
	220 (6.7)	225 (3.7)	222 (3.1)	223 (3.2)	222 (5.4)	*** (***)
<b>HS graduate</b>						
Guam	35 (3.7)	43 (2.6)	36 (2.9)	35 (2.6)	29 (3.2)	22 (2.8)
Nation	181 (4.7)	170 (4.9)	194 (5.2)	183 (4.6)	166 (6.2)	*** (***)
	30 (4.5)	36 (3.4)	53 (5.6)	44 (3.8)	18 (2.6)	20 (2.3)
	213 (4.2)	208 (3.4)	215 (3.6)	213 (3.0)	202 (4.8)	190 (5.0)
<b>HS non-graduate</b>						
Guam	36 (4.5)	45 (5.7)	41 (5.7)	31 (5.6)	23 (5.0)	24 (4.6)
Nation	29 (5.9)	42 (4.8)	42 (5.8)	43 (4.4)	29 (4.6)	14 (3.0)
	*** (***)	182 (6.3)	200 (5.4)	197 (5.4)	198 (4.2)	*** (***)
<b>I don't know</b>						
Guam	27 (1.4)	44 (1.7)	43 (1.5)	32 (1.2)	30 (1.7)	24 (1.8)
Nation	180 (3.7)	180 (2.6)	185 (3.3)	181 (2.6)	175 (2.8)	179 (3.4)
	28 (3.7)	35 (2.5)	53 (3.8)	45 (2.9)	18 (2.2)	20 (2.0)
	212 (2.3)	205 (2.9)	210 (2.0)	211 (2.1)	208 (3.1)	193 (3.3)
<b>GENDER</b>						
<b>Male</b>						
Guam	27 (1.5)	41 (1.6)	44 (1.2)	34 (1.4)	29 (1.5)	25 (1.2)
Nation	173 (2.7)	169 (1.8)	179 (2.6)	175 (2.9)	169 (2.9)	170 (3.9)
	28 (3.2)	36 (2.5)	53 (3.5)	45 (2.6)	19 (2.0)	19 (2.1)
	211 (2.5)	209 (2.6)	214 (2.0)	213 (2.0)	211 (3.2)	194 (4.0)
<b>Female</b>						
Guam	28 (1.5)	40 (1.1)	42 (1.6)	35 (1.1)	30 (1.5)	26 (1.3)
Nation	190 (3.0)	189 (2.7)	196 (2.2)	189 (2.9)	179 (2.7)	191 (2.5)
	29 (3.3)	38 (2.8)	52 (3.6)	43 (2.8)	19 (2.0)	19 (1.8)
	221 (2.6)	221 (2.0)	221 (2.1)	223 (2.1)	216 (2.7)	207 (4.5)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	41 (1.0)	== (==)	34 (0.8)	== (==)	25 (1.0)
Nation	== (==)	179 (1.6)	== (==)	182 (2.1)	== (==)	181 (2.4)
	== (==)	37 (2.5)	== (==)	44 (2.7)	== (==)	19 (1.9)
	== (==)	215 (2.1)	== (==)	217 (1.8)	== (==)	200 (4.0)
<b>Non-Public</b>						
Guam	== (==)	82 (0.5)	== (==)	18 (0.5)	== (==)	0 (0.0)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	58 (6.3)	== (==)	32 (6.0)	== (==)	10 (2.9)
	== (==)	231 (3.2)	== (==)	229 (4.8)	== (==)	232 (2.5)
<b>Combined</b>						
Guam	== (==)	46 (0.9)	== (==)	32 (0.7)	== (==)	22 (0.8)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	39 (2.3)	== (==)	43 (2.5)	== (==)	18 (1.7)
	== (==)	217 (2.0)	== (==)	218 (1.7)	== (==)	202 (3.7)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). \*\*\* Sample size is insufficient to permit a reliable estimate.





1994 Trial State Assessment

**TABLE D5.3**

*Public School Teachers' Reports on the Availability of Resources*

	I get all the resources I need		I get most of the resources I need		I get some or none of the resources I need	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	4 (0.4) *** (***)	5 (0.5) *** (***)	31 (0.7) 189 (1.9)	33 (0.7) 184 (1.7)	65 (0.8) 179 (1.7)	62 (0.8) 178 (1.7)
Nation	11 (1.7) 220 (3.1)	9 (1.7) 225 (3.7)	51 (2.9) 218 (1.7)	55 (2.7) 215 (1.6)	39 (3.5) 213 (1.6)	35 (2.7) 208 (1.8)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	4 (1.1) *** (***)	4 (1.2) *** (***)	41 (2.9) 203 (3.5)	44 (3.6) *** (***)	55 (3.2) 187 (4.1)	53 (3.8) 181 (7.3)
Nation	11 (2.0) 229 (2.8)	10 (2.0) 233 (2.7)	53 (3.4) 224 (1.9)	58 (3.2) 223 (1.8)	36 (4.2) 221 (1.8)	32 (3.2) 220 (2.0)
<b>Black</b>						
Guam	1 (1.4) *** (***)	0 (0.0) *** (***)	34 (6.8) *** (***)	43 (7.1) *** (***)	65 (6.4) *** (***)	57 (7.1) *** (***)
Nation	10 (1.8) 194 (4.9)	7 (1.9) 197 (10.4) <sup>1</sup>	40 (4.0) 192 (2.6)	46 (5.0) 186 (2.2)	49 (4.0) 196 (2.2)	47 (4.7) 186 (2.3) <
<b>Hispanic</b>						
Guam	6 (1.3) *** (***)	9 (1.8) *** (***)	24 (2.4) 178 (5.2)	36 (2.6) > 176 (3.6)	70 (2.3) 159 (3.7)	55 (3.0) < 168 (4.0)
Nation	10 (1.9) 200 (6.2)	8 (2.0) *** (***)	50 (4.2) 203 (3.0)	50 (3.6) 192 (2.6) <	41 (4.2) 198 (2.7)	41 (4.1) 186 (3.3)
<b>Asian</b>						
Guam	-- (--) -- (--)	0 (0.0) *** (***)	-- (--) -- (--)	35 (6.3) *** (***)	-- (--) -- (--)	65 (6.3) *** (***)
Nation	-- (--) -- (--)	18 (6.2) *** (***)	-- (--) -- (--)	54 (5.9) 234 (5.8)	-- (--) -- (--)	27 (4.2) *** (***)
<b>Pacific Islander</b>						
Guam	-- (--) -- (--)	5 (0.5) *** (***)	-- (--) -- (--)	30 (0.9) 189 (2.2)	-- (--) -- (--)	65 (1.0) 179 (1.7)
Nation	-- (--) -- (--)	6 (3.1) *** (***)	-- (--) -- (--)	55 (7.1) *** (***)	-- (--) -- (--)	38 (6.8) *** (***)

(continued on next page)



TABLE D5.3 (continued)

Public School Teachers' Reports on the Availability of Resources

1994 Trial State Assessment

	I get all the resources I need		I get most of the resources I need		I get some or none of the resources I need	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	4 (0.6)	5 (1.0)	33 (1.5)	33 (1.5)	63 (1.6)	61 (1.7)
Nation	11 (2.0)	10 (1.9)	51 (3.3)	54 (3.1)	37 (4.0)	36 (3.2)
	226 (4.8)	233 (4.9)	225 (2.4)	225 (1.8)	222 (2.3)	217 (2.4)
<b>Some ed after HS</b>						
Guam	3 (1.7)	7 (1.6)	40 (4.5)	35 (4.7)	56 (4.8)	58 (4.7)
Nation	10 (2.5)	11 (3.0)	54 (4.2)	53 (4.5)	36 (5.2)	36 (4.0)
	*** (***)	*** (***)	221 (2.4)	225 (3.2)	223 (5.3)	215 (3.9)
<b>HS graduate</b>						
Guam	2 (0.8)	5 (1.4)	26 (2.9)	31 (2.6)	73 (3.0)	64 (2.6)
Nation	11 (2.6)	9 (1.7)	49 (4.6)	55 (3.0)	39 (4.9)	36 (3.0)
	*** (***)	214 (8.4)	216 (3.6)	210 (2.6)	208 (2.2)	203 (3.5)
<b>HS non-graduate</b>						
Guam	1 (1.0)	7 (3.0)	28 (4.6)	28 (5.0)	71 (4.6)	64 (6.0)
Nation	8 (2.4)	3 (1.5)	39 (4.6)	60 (4.1)	52 (4.9)	37 (3.8)
	*** (***)	*** (***)	196 (5.3)	192 (4.5)	198 (4.9)	182 (6.0)
<b>I don't know</b>						
Guam	5 (0.6)	4 (0.9)	31 (1.6)	33 (1.4)	64 (1.6)	63 (1.7)
Nation	10 (1.7)	9 (1.6)	51 (2.9)	57 (2.8)	38 (3.2)	34 (2.6)
	216 (4.0)	218 (4.2)	212 (2.1)	206 (2.3)	206 (1.8)	202 (2.0)
<b>GENDER</b>						
<b>Male</b>						
Guam	4 (0.9)	4 (0.4)	31 (1.4)	33 (1.3)	65 (1.5)	63 (1.4)
Nation	10 (1.8)	9 (1.6)	51 (3.0)	57 (2.8)	38 (3.7)	34 (2.7)
	216 (3.5)	222 (3.5)	214 (2.0)	209 (1.9)	210 (2.3)	202 (2.1)
<b>Female</b>						
Guam	4 (0.7)	6 (0.9)	31 (1.3)	33 (1.1)	64 (1.3)	62 (1.2)
Nation	11 (1.8)	10 (1.9)	50 (2.9)	54 (2.8)	39 (3.4)	37 (2.8)
	224 (3.5)	228 (4.6)	222 (1.8)	221 (1.8)	217 (1.6)	214 (2.0)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	5 (0.5)	== (==)	33 (0.7)	== (==)	62 (0.8)
Nation	== (==)	9 (1.7)	== (==)	55 (2.7)	== (==)	35 (2.7)
	== (==)	225 (3.7)	== (==)	215 (1.6)	== (==)	208 (1.8)
<b>Non-Public</b>						
Guam	== (==)	27 (2.2)	== (==)	72 (2.3)	== (==)	0 (0.4)
Nation	== (==)	14 (3.3)	== (==)	49 (4.9)	== (==)	37 (4.9)
	== (==)	230 (6.2)	== (==)	233 (3.1)	== (==)	229 (4.3)
<b>Combined</b>						
Guam	== (==)	8 (0.5)	== (==)	38 (0.7)	== (==)	54 (0.7)
Nation	== (==)	10 (1.6)	== (==)	54 (2.5)	== (==)	36 (2.4)
	== (==)	226 (3.4)	== (==)	216 (1.5)	== (==)	211 (1.7)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

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





**TABLE D6.1**

*Public School Teachers' Reports on Instructional Materials for Reading*

1994 Trial State Assessment

	Primarily Basal		Primarily Trade Books		Both Basal and Trade Books		Other	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	44 (0.9)	9 (0.4)	5 (0.4)	20 (0.6)	48 (0.9)	71 (0.7)	4 (0.4)	0 (0.0)
Nation	183 (1.7)	*** (***)	*** (***)	*** (***)	182 (1.7)	182 (1.5)	*** (***)	*** (***)
	33 (2.6)	18 (2.4)	13 (2.3)	20 (2.8)	51 (3.6)	59 (3.0)	3 (1.1)	3 (0.7)
	213 (2.2)	208 (2.4)	222 (4.4)	218 (2.9)	217 (1.4)	214 (1.7)	208 (6.3)	197 (6.1)
<b>RACE/ ETHNICITY</b>								
<b>White</b>								
Guam	40 (2.6)	8 (2.4)	3 (1.2)	17 (3.1)	55 (2.8)	75 (3.7)	2 (1.1)	0 (0.0)
Nation	192 (4.7)	*** (***)	*** (***)	*** (***)	196 (4.3)	186 (6.5)	*** (***)	*** (***)
	31 (3.1)	16 (2.5)	14 (2.7)	22 (3.4)	52 (4.1)	59 (3.8)	3 (1.1)	2 (0.7)
	220 (2.6)	220 (2.5)	229 (4.0)	222 (3.3)	224 (1.7)	224 (1.6)	215 (6.5)	212 (8.2)
<b>Black</b>								
Guam	36 (6.5)	5 (3.1)	3 (1.8)	23 (4.9)	59 (5.9)	73 (5.4)	3 (1.9)	0 (0.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	42 (3.8)	31 (4.8)	8 (2.6)	9 (2.0)	48 (4.2)	57 (4.7)	3 (1.6)	3 (1.2)
	197 (2.5)	186 (2.7)	*** (***)	199 (4.8)	193 (2.4)	186 (2.4)	*** (***)	*** (***)
<b>Hispanic</b>								
Guam	44 (2.3)	9 (1.8)	6 (0.7)	12 (1.4)	46 (2.4)	79 (2.2)	4 (1.0)	0 (0.0)
Nation	165 (4.5)	*** (***)	*** (***)	*** (***)	163 (3.5)	171 (3.1)	*** (***)	*** (***)
	32 (3.8)	16 (2.6)	14 (2.3)	18 (3.5)	49 (3.9)	61 (3.5)	5 (2.7)	5 (1.2)
	200 (4.4)	193 (5.2)	204 (7.6)	195 (4.9)	204 (3.0)	190 (3.3)	*** (***)	*** (***)
<b>Asian</b>								
Guam	— (—)	14 (3.8)	— (—)	19 (5.6)	— (—)	67 (6.5)	— (—)	0 (0.0)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	11 (2.8)	— (—)	25 (6.4)	— (—)	55 (5.6)	— (—)	9 (3.9)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	239 (6.6)	— (—)	*** (***)
<b>Pacific Islander</b>								
Guam	— (—)	9 (0.6)	— (—)	22 (1.1)	— (—)	69 (1.2)	— (—)	0 (0.0)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	185 (1.7)	— (—)	*** (***)
	— (—)	12 (5.3)	— (—)	20 (7.7)	— (—)	57 (6.7)	— (—)	12 (10.2)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)

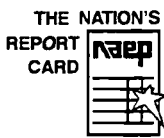


TABLE D6.1 (continued)

Public School Teachers' Reports on Instructional Materials for Reading

1994 Trial State Assessment

	Primarily Basal		Primarily Trade Books		Both Basal and Trade Books		Other	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	46 (2.1)	9 (0.9)	5 (0.8)	21 (1.7)	46 (2.0)	70 (1.7)	4 (0.6)	0 (0.0)
Nation	183 (2.9)	*** (***)	*** (***)	*** (***)	182 (2.8)	183 (2.4)	*** (***)	*** (***)
	32 (3.2)	17 (2.4)	15 (2.9)	22 (2.9)	50 (3.7)	59 (3.5)	3 (0.9)	3 (0.8)
	220 (3.2)	212 (3.0)	233 (5.7)	229 (2.5)	225 (1.8)	224 (2.0)	*** (***)	211 (9.1)
<b>Some ed after HS</b>								
Guam	42 (4.2)	12 (2.9)	3 (0.9)	18 (2.7)	51 (4.4)	70 (3.5)	4 (1.4)	0 (0.0)
Nation	29 (3.8)	17 (3.3)	16 (4.2)	21 (3.7)	53 (5.5)	59 (4.8)	2 (1.0)	3 (1.4)
	222 (4.9)	221 (4.4)	*** (***)	218 (5.4)	221 (3.5)	222 (3.0)	*** (***)	*** (***)
<b>HS graduate</b>								
Guam	43 (3.8)	8 (2.1)	4 (0.9)	22 (2.4)	49 (3.8)	70 (3.0)	3 (1.3)	0 (0.0)
Nation	184 (5.0)	*** (***)	*** (***)	*** (***)	180 (4.6)	177 (4.0)	*** (***)	*** (***)
	35 (3.8)	20 (3.2)	9 (2.3)	14 (3.3)	52 (4.8)	83 (3.6)	3 (1.4)	3 (1.1)
	213 (3.8)	209 (4.9)	*** (***)	209 (4.7)	213 (2.9)	208 (2.6)	*** (***)	*** (***)
<b>HS non-graduate</b>								
Guam	52 (4.2)	12 (4.9)	7 (1.6)	25 (4.7)	39 (4.2)	63 (5.6)	2 (1.7)	0 (0.0)
Nation	34 (4.1)	22 (5.1)	10 (3.0)	18 (4.4)	52 (4.7)	56 (4.4)	5 (1.9)	3 (1.4)
	*** (***)	*** (***)	*** (***)	*** (***)	200 (5.2)	190 (5.3)	*** (***)	*** (***)
<b>I don't know</b>								
Guam	42 (1.5)	8 (0.7)	5 (0.6)	18 (1.4)	49 (1.7)	73 (1.4)	4 (0.5)	0 (0.0)
Nation	181 (2.9)	*** (***)	*** (***)	*** (***)	182 (2.8)	181 (2.2)	*** (***)	*** (***)
	34 (2.8)	19 (2.6)	13 (2.2)	19 (3.1)	50 (3.7)	58 (3.0)	4 (1.6)	3 (0.7)
	207 (2.4)	203 (3.6)	215 (5.2)	210 (3.6)	212 (1.8)	206 (1.9)	*** (***)	181 (6.3)
<b>GENDER</b>								
<b>Male</b>								
Guam	44 (1.4)	9 (0.6)	5 (0.4)	21 (1.1)	47 (1.3)	70 (1.1)	4 (0.6)	0 (0.0)
Nation	175 (2.6)	*** (***)	*** (***)	*** (***)	174 (1.9)	173 (2.2)	*** (***)	*** (***)
	32 (2.8)	18 (2.5)	14 (2.6)	20 (2.7)	51 (3.9)	58 (2.8)	3 (1.1)	3 (0.8)
	209 (2.7)	202 (2.3)	218 (5.5)	213 (3.7)	214 (1.7)	209 (1.8)	*** (***)	187 (8.3)
<b>Female</b>								
Guam	43 (1.4)	9 (0.6)	5 (0.5)	19 (1.3)	49 (1.5)	72 (1.4)	3 (0.6)	0 (0.0)
Nation	192 (2.1)	*** (***)	*** (***)	*** (***)	190 (2.5)	190 (2.1)	*** (***)	*** (***)
	34 (2.7)	18 (2.5)	13 (2.1)	19 (3.0)	50 (3.3)	60 (3.3)	3 (1.1)	3 (0.7)
	217 (2.3)	214 (2.9)	228 (3.9)	223 (3.0)	221 (1.7)	220 (1.8)	*** (***)	208 (6.3)
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	9 (0.4)	== (==)	20 (0.6)	== (==)	71 (0.7)	== (==)	0 (0.0)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	182 (1.5)	== (==)	*** (***)
	== (==)	18 (2.4)	== (==)	20 (2.8)	== (==)	59 (3.0)	== (==)	3 (0.7)
	== (==)	208 (2.4)	== (==)	218 (2.9)	== (==)	214 (1.7)	== (==)	197 (6.1)
<b>Non-Public</b>								
Guam	== (==)	29 (1.5)	== (==)	0 (0.0)	== (==)	58 (1.2)	== (==)	13 (0.5)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	40 (5.6)	== (==)	10 (3.3)	== (==)	44 (5.2)	== (==)	7 (2.7)
	== (==)	230 (3.2)	== (==)	239 (8.4)	== (==)	229 (2.5)	== (==)	222 (16.4)
<b>Combined</b>								
Guam	== (==)	12 (0.4)	== (==)	17 (0.5)	== (==)	69 (0.6)	== (==)	2 (0.1)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	21 (2.2)	== (==)	19 (2.5)	== (==)	57 (2.6)	== (==)	3 (0.7)
	== (==)	212 (2.1)	== (==)	219 (2.9)	== (==)	215 (1.6)	== (==)	202 (5.0)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





**TABLE D6.2A**

*Public School Teachers' Reports on the Frequency of Using Children's Newspapers and/or Magazines*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	36 (0.9)	26 (1.1)	37 (0.9)	38 (0.8)	27 (0.9)	36 (1.0)
Nation	186 (1.7)	180 (2.7)	177 (2.4)	184 (2.3)	181 (2.6)	176 (1.9)
	32 (3.2)	30 (3.0)	32 (2.4)	36 (2.2)	36 (2.6)	35 (2.8)
	218 (2.2)	213 (2.3)	213 (2.0)	212 (1.7)	218 (2.1)	214 (2.2)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	33 (3.2)	20 (3.2)	37 (3.6)	43 (4.5)	31 (3.1)	37 (4.4)
Nation	200 (4.9)	*** (***)	188 (6.0)	*** (***)	195 (5.9)	*** (***)
	33 (3.9)	39 (3.5)	29 (2.7)	35 (2.7)	38 (2.9)	35 (3.2)
	225 (2.3)	223 (2.7)	221 (2.2)	223 (1.8)	224 (2.2)	222 (2.1)
<b>Black</b>						
Guam	28 (5.9)	37 (5.8)	43 (6.8)	26 (5.8)	29 (5.0)	37 (7.4)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	30 (3.5)	31 (4.0)	43 (4.2)	35 (4.6)	28 (4.1)	34 (4.6)
	194 (3.3)	184 (3.3)	195 (2.5)	185 (3.2)	192 (3.9)	190 (2.6)
<b>Hispanic</b>						
Guam	27 (2.3)	20 (2.4)	41 (2.3)	42 (3.1)	32 (2.0)	38 (3.1)
Nation	168 (3.9)	*** (***)	157 (5.0)	177 (6.0)	168 (5.4)	161 (4.9)
	31 (2.9)	26 (3.6)	34 (3.1)	41 (4.3)	36 (3.4)	33 (3.9)
	202 (4.0)	190 (4.5)	197 (4.5)	188 (2.8)	205 (3.5)	193 (3.7)
<b>Asian</b>						
Guam	— (—)	41 (7.6)	— (—)	33 (8.8)	— (—)	25 (6.1)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	31 (7.5)	— (—)	41 (7.8)	— (—)	28 (5.9)
	— (—)	*** (***)	— (—)	229 (5.9)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	27 (1.1)	— (—)	37 (1.2)	— (—)	37 (1.4)
Nation	— (—)	182 (3.3)	— (—)	186 (2.2)	— (—)	180 (2.2)
	— (—)	33 (10.0)	— (—)	38 (13.3)	— (—)	29 (8.8)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)



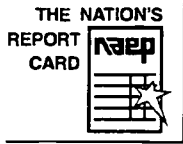


TABLE D6.2A (continued)

Public School Teachers' Reports on the Frequency of Using Children's Newspapers and/or Magazines

1994 Trial State Assessment

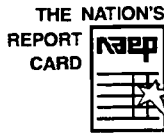
	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	33 (2.3)	26 (1.7)	39 (2.0)	40 (2.3)	28 (1.9)	34 (1.9)
Nation	185 (3.0)	183 (5.0)	177 (4.0)	188 (3.4)	182 (3.6)	178 (3.5)
	33 (3.8)	30 (2.9)	30 (2.7)	35 (2.4)	38 (3.3)	35 (3.2)
	224 (2.6)	223 (2.9)	219 (2.6)	222 (2.4)	228 (3.2)	223 (2.7)
<b>Some ed after HS</b>						
Guam	39 (4.5)	21 (4.3)	31 (3.6)	46 (4.4)	29 (4.4)	33 (4.1)
Nation	34 (5.0)	35 (4.0)	29 (3.5)	34 (3.1)	37 (4.5)	32 (3.2)
	228 (5.5)	218 (3.5)	215 (3.9)	218 (4.0)	222 (3.7)	229 (3.6)
<b>HS graduate</b>						
Guam	39 (2.9)	27 (3.0)	33 (3.0)	34 (3.1)	28 (2.9)	39 (3.0)
Nation	185 (3.6)	171 (5.7)	177 (5.7)	188 (6.4)	171 (4.8)	171 (4.8)
	35 (4.7)	30 (4.7)	31 (3.2)	34 (3.3)	35 (4.0)	36 (3.5)
	214 (4.1)	208 (4.0)	212 (4.4)	204 (3.5)	211 (3.2)	210 (3.4)
<b>HS non-graduate</b>						
Guam	33 (5.3)	28 (4.8)	45 (6.1)	26 (5.5)	22 (4.2)	46 (5.5)
Nation	37 (4.8)	27 (4.7)	33 (5.5)	30 (3.4)	30 (5.2)	44 (5.0)
	199 (5.6)	182 (5.8)	198 (4.9)	192 (6.3)	199 (5.6)	190 (7.7)
<b>I don't know</b>						
Guam	36 (1.7)	26 (1.8)	37 (1.8)	37 (1.5)	27 (1.4)	37 (1.8)
Nation	186 (2.6)	178 (3.3)	179 (3.2)	182 (2.8)	176 (3.1)	178 (2.7)
	29 (3.0)	28 (3.2)	35 (2.8)	40 (2.5)	36 (2.7)	32 (2.8)
	212 (2.6)	206 (2.8)	209 (2.6)	205 (2.1)	210 (2.2)	205 (2.8)
<b>GENDER</b>						
<b>Male</b>						
Guam	36 (1.4)	26 (1.3)	37 (1.4)	38 (1.4)	27 (1.3)	36 (1.4)
Nation	180 (2.2)	172 (3.8)	169 (2.7)	173 (2.5)	173 (3.4)	168 (3.4)
	31 (3.5)	30 (2.8)	31 (2.5)	36 (2.3)	37 (2.9)	34 (2.7)
	215 (3.0)	208 (2.8)	210 (2.5)	206 (2.1)	213 (2.6)	209 (2.3)
<b>Female</b>						
Guam	36 (1.2)	27 (1.6)	37 (1.5)	37 (1.5)	28 (1.3)	36 (1.4)
Nation	192 (2.5)	187 (3.9)	186 (3.1)	196 (3.1)	189 (3.2)	184 (2.9)
	32 (3.0)	29 (3.2)	33 (2.6)	36 (2.3)	35 (2.6)	35 (3.0)
	221 (2.2)	219 (2.5)	216 (2.1)	218 (1.7)	223 (2.2)	219 (2.5)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	26 (1.1)	== (==)	38 (0.8)	== (==)	36 (1.0)
Nation	== (==)	180 (2.7)	== (==)	184 (2.3)	== (==)	176 (1.9)
	== (==)	30 (3.0)	== (==)	36 (2.2)	== (==)	35 (2.8)
	== (==)	213 (2.3)	== (==)	212 (1.7)	== (==)	214 (2.2)
<b>Non-Public</b>						
Guam	== (==)	17 (1.9)	== (==)	74 (2.5)	== (==)	9 (1.2)
Nation	== (==)	30 (4.7)	== (==)	28 (4.1)	== (==)	42 (4.5)
	== (==)	229 (3.0)	== (==)	230 (5.3)	== (==)	232 (4.1)
<b>Combined</b>						
Guam	== (==)	25 (1.0)	== (==)	43 (0.8)	== (==)	32 (0.9)
Nation	== (==)	30 (2.7)	== (==)	35 (2.0)	== (==)	35 (2.6)
	== (==)	215 (2.2)	== (==)	214 (1.6)	== (==)	216 (2.1)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.2B**

*Public School Teachers' Reports on the Frequency of Using Reading Kits*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	58 (0.8)	49 (1.1)	19 (0.7)	17 (0.8)	23 (0.8)	34 (0.9)
Nation	182 (1.7)	181 (1.8)	20 (2.4)	21 (2.0)	58 (3.2)	58 (3.0)
	210 (2.5)	206 (2.8)	218 (2.2)	214 (1.9)	218 (2.2)	216 (1.5)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	57 (3.2)	55 (4.9)	19 (2.7)	19 (3.2)	24 (2.7)	27 (4.1)
Nation	189 (4.9)	185 (6.9)	20 (3.0)	20 (2.1)	61 (3.9)	62 (3.4)
	221 (2.7)	220 (3.1)	224 (2.2)	225 (1.9)	224 (2.3)	223 (1.9)
<b>Black</b>						
Guam	51 (7.5)	62 (7.3)	26 (5.9)	19 (5.2)	23 (5.2)	19 (7.0)
Nation	36 (4.4)	34 (4.6)	18 (3.1)	23 (3.5)	46 (4.8)	43 (4.1)
	192 (3.2)	182 (2.7)	197 (3.8)	191 (3.4)	195 (3.3)	187 (2.5)
<b>Hispanic</b>						
Guam	56 (2.3)	59 (2.8)	19 (1.6)	14 (1.6)	25 (2.1)	27 (2.1)
Nation	159 (4.6)	171 (3.9)	18 (3.1)	24 (4.3)	54 (4.5)	53 (4.5)
	28 (6.1)	23 (3.4)	205 (6.6)	191 (3.3)	204 (3.4)	192 (3.0)
<b>Asian</b>						
Guam	-- (-)	46 (7.0)	-- (-)	17 (5.7)	-- (-)	37 (6.1)
Nation	-- (-)	13 (4.1)	-- (-)	17 (4.3)	-- (-)	70 (6.9)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	233 (8.7)
<b>Pacific Islander</b>						
Guam	-- (-)	46 (1.6)	-- (-)	18 (1.2)	-- (-)	37 (1.2)
Nation	-- (-)	185 (1.9)	-- (-)	24 (6.9)	-- (-)	178 (2.8)
	-- (-)	26 (9.0)	-- (-)	*** (***)	-- (-)	50 (11.2)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)

(continued on next page)





TABLE D6.2B (continued)

*Public School Teachers' Reports on the Frequency of Using Reading Kits*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	58 (2.0)	50 (1.8)	20 (1.7)	16 (1.2)	22 (1.6)	34 (1.9)
Nation	181 (2.3)	183 (2.6)	*** (***)	*** (***)	180 (5.5)	182 (3.9)
	20 (2.7)	21 (2.7)	20 (2.9)	19 (1.9)	60 (3.3)	60 (3.1)
	218 (3.7)	214 (3.4)	225 (3.7)	224 (2.3)	226 (2.4)	226 (1.6)
<b>Some ed after HS</b>						
Guam	67 (5.0)	45 (4.5)	16 (2.9)	22 (3.8)	17 (4.7)	33 (4.7)
Nation	186 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	26 (5.1)	17 (2.2)	18 (3.6)	20 (3.0)	57 (6.0)	63 (3.4)
	220 (6.7)	214 (5.9)	*** (***)	221 (3.7)	222 (3.7)	224 (2.9)
<b>HS graduate</b>						
Guam	57 (2.7)	47 (3.2)	18 (2.0)	16 (2.5)	25 (2.9)	38 (2.9)
Nation	184 (4.4)	179 (4.9)	*** (***)	*** (***)	*** (***)	163 (7.1)
	20 (2.9)	24 (3.4)	20 (2.9)	22 (3.1)	60 (3.8)	54 (3.9)
	205 (4.7)	204 (4.1)	216 (3.2)	208 (4.5)	214 (3.8)	208 (2.6)
<b>HS non-graduate</b>						
Guam	54 (5.5)	51 (6.0)	23 (4.3)	15 (4.2)	24 (4.7)	34 (5.9)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	30 (5.3)	25 (3.9)	16 (3.8)	18 (3.5)	54 (5.2)	58 (5.5)
	*** (***)	183 (11.3)	*** (***)	*** (***)	199 (5.6)	186 (3.8)
<b>I don't know</b>						
Guam	56 (1.3)	49 (1.7)	18 (1.3)	18 (1.2)	24 (1.5)	32 (1.7)
Nation	181 (2.3)	179 (2.4)	*** (***)	*** (***)	178 (4.2)	179 (3.8)
	24 (2.8)	21 (3.0)	19 (2.6)	22 (2.5)	57 (3.4)	57 (3.5)
	204 (2.4)	198 (3.7)	212 (2.7)	207 (2.9)	212 (2.3)	208 (1.9)
<b>GENDER</b>						
<b>Male</b>						
Guam	58 (1.2)	48 (1.7)	18 (0.9)	17 (1.2)	24 (1.0)	34 (1.5)
Nation	175 (2.0)	171 (2.7)	*** (***)	*** (***)	172 (3.9)	169 (2.7)
	21 (2.6)	22 (2.6)	20 (2.6)	20 (2.1)	59 (3.5)	58 (3.0)
	205 (3.0)	200 (3.0)	214 (2.4)	209 (2.6)	215 (2.5)	210 (1.9)
<b>Female</b>						
Guam	56 (1.3)	50 (1.6)	19 (1.4)	17 (1.4)	22 (1.5)	33 (1.3)
Nation	189 (2.3)	190 (2.3)	*** (***)	*** (***)	185 (4.2)	185 (3.7)
	24 (2.8)	20 (2.5)	19 (2.3)	21 (2.2)	57 (3.1)	58 (3.2)
	216 (2.6)	212 (3.3)	221 (2.8)	220 (2.0)	222 (2.1)	222 (1.6)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	49 (1.1)	== (==)	17 (0.8)	== (==)	34 (0.9)
Nation	== (==)	181 (1.8)	== (==)	*** (***)	== (==)	177 (2.5)
	== (==)	21 (2.5)	== (==)	21 (2.0)	== (==)	58 (3.0)
	== (==)	206 (2.8)	== (==)	214 (1.9)	== (==)	216 (1.5)
<b>Non-Public</b>						
Guam	== (==)	48 (2.0)	== (==)	9 (1.4)	== (==)	44 (1.9)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	23 (4.5)	== (==)	17 (4.3)	== (==)	60 (4.5)
	== (==)	234 (4.3)	== (==)	227 (5.5)	== (==)	230 (3.4)
<b>Combined</b>						
Guam	== (==)	49 (1.0)	== (==)	16 (0.7)	== (==)	35 (0.8)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	21 (2.3)	== (==)	20 (1.9)	== (==)	58 (2.7)
	== (==)	209 (2.5)	== (==)	215 (1.8)	== (==)	217 (1.4)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D6.2C

Public School Teachers' Reports on the Frequency of Using Computer Software for Reading Instruction

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	61 (0.8)	81 (0.9)	7 (0.6)	9 (0.7)	32 (0.9)	10 (0.6)
Nation	187 (1.7)	180 (1.5)	*** (***)	*** (***)	176 (2.3)	*** (***)
	25 (3.0)	24 (2.3)	23 (2.7)	22 (2.4)	52 (3.8)	55 (2.7)
	212 (2.4)	211 (2.4)	216 (2.6)	219 (2.5)	218 (1.9)	213 (1.5)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	68 (2.8)	81 (3.2)	7 (2.2)	9 (2.4)	25 (2.5)	10 (2.5)
Nation	202 (3.6)	189 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)
	21 (3.0)	23 (2.6)	26 (3.5)	23 (2.7)	53 (4.3)	54 (3.2)
	221 (2.3)	222 (2.3)	221 (2.7)	226 (2.4)	224 (2.1)	222 (1.8)
<b>Black</b>						
Guam	65 (5.9)	85 (4.8)	8 (4.2)	6 (3.7)	26 (4.9)	9 (3.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	42 (5.2)	28 (4.5)	16 (3.3)	15 (3.5)	42 (4.7)	57 (5.2)
	194 (3.1)	184 (3.2)	193 (4.9)	189 (6.4)	194 (3.1)	187 (1.9)
<b>Hispanic</b>						
Guam	60 (2.1)	85 (1.8)	9 (1.1)	9 (1.3)	31 (1.9)	7 (1.4)
Nation	171 (3.8)	170 (2.8)	*** (***)	*** (***)	159 (6.5)	*** (***)
	28 (6.2)	26 (4.1)	18 (2.7)	22 (3.7)	54 (7.0)	52 (3.8)
	203 (5.3)	187 (3.7)	197 (5.8)	197 (6.0)	202 (2.4)	190 (3.3)
<b>Asian</b>						
Guam	-- (-)	72 (7.6)	-- (-)	6 (3.0)	-- (-)	22 (6.8)
Nation	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)
	-- (-)	15 (4.5)	-- (-)	31 (8.5)	-- (-)	55 (7.3)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	236 (6.9)
<b>Pacific Islander</b>						
Guam	-- (-)	81 (1.1)	-- (-)	9 (0.9)	-- (-)	10 (0.7)
Nation	-- (-)	183 (1.6)	-- (-)	*** (***)	-- (-)	*** (***)
	-- (-)	8 (3.4)	-- (-)	40 (7.4)	-- (-)	52 (6.8)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)

(continued on next page)



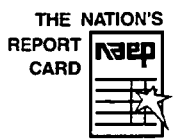


TABLE D6.2C (continued)

Public School Teachers' Reports on the Frequency of Using Computer Software for Reading Instruction

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	62 (1.8)	82 (1.5)	7 (1.1)	9 (1.2)	31 (1.8)	9 (1.2)
Nation	187 (3.1)	184 (2.3)	*** (***)	*** (***)	176 (4.4)	*** (***)
	25 (3.5)	22 (2.1)	23 (3.5)	23 (3.0)	53 (4.6)	55 (3.4)
	221 (3.2)	220 (2.8)	223 (3.1)	230 (2.8)	225 (2.6)	222 (1.6)
<b>Some ed after HS</b>						
Guam	72 (3.7)	75 (4.1)	5 (1.9)	9 (2.8)	23 (3.6)	15 (2.8)
Nation	194 (5.7)	192 (5.6)	*** (***)	*** (***)	*** (***)	*** (***)
	23 (3.4)	23 (3.1)	26 (3.2)	23 (3.4)	51 (4.9)	54 (3.6)
	214 (4.9)	219 (3.9)	226 (4.4)	224 (4.9)	223 (3.8)	222 (3.0)
<b>HS graduate</b>						
Guam	61 (3.1)	80 (2.4)	7 (1.3)	13 (1.7)	32 (3.1)	8 (2.1)
Nation	191 (3.6)	173 (3.7)	*** (***)	*** (***)	173 (6.3)	*** (***)
	26 (4.1)	25 (3.0)	20 (2.9)	17 (2.5)	54 (4.7)	58 (3.0)
	209 (4.2)	207 (3.5)	211 (4.1)	206 (4.6)	215 (2.8)	208 (3.2)
<b>HS non-graduate</b>						
Guam	62 (5.4)	82 (4.7)	7 (3.1)	4 (2.5)	31 (5.0)	14 (3.8)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	34 (5.1)	27 (4.2)	22 (3.5)	18 (3.4)	44 (4.7)	55 (3.8)
	195 (6.5)	190 (10.2)	*** (***)	*** (***)	199 (6.3)	186 (4.6)
<b>I don't know</b>						
Guam	58 (1.6)	81 (1.1)	6 (1.2)	6 (0.5)	34 (1.9)	11 (0.9)
Nation	187 (2.5)	181 (2.1)	*** (***)	*** (***)	175 (2.6)	*** (***)
	24 (3.1)	25 (3.0)	25 (3.1)	22 (2.5)	51 (4.0)	54 (2.9)
	206 (2.5)	204 (3.2)	210 (3.4)	210 (2.9)	213 (2.0)	205 (1.9)
<b>GENDER</b>						
<b>Male</b>						
Guam	60 (1.4)	80 (1.5)	6 (0.9)	10 (1.2)	32 (1.5)	11 (1.3)
Nation	181 (2.2)	171 (1.9)	*** (***)	*** (***)	168 (3.1)	*** (***)
	24 (3.0)	25 (2.4)	24 (3.2)	21 (2.4)	52 (4.0)	55 (2.8)
	208 (3.1)	204 (3.1)	212 (3.3)	215 (3.3)	214 (2.1)	207 (1.7)
<b>Female</b>						
Guam	62 (1.6)	83 (1.2)	6 (0.8)	6 (0.8)	31 (1.8)	10 (0.9)
Nation	194 (1.9)	190 (2.1)	*** (***)	*** (***)	185 (2.5)	*** (***)
	26 (3.1)	23 (2.4)	22 (2.4)	23 (2.5)	52 (3.8)	55 (2.7)
	216 (2.4)	218 (2.1)	221 (2.7)	222 (2.6)	222 (2.1)	219 (1.5)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	=== (===)	81 (0.9)	=== (===)	9 (0.7)	=== (===)	10 (0.6)
Nation	=== (===)	180 (1.5)	=== (===)	*** (***)	=== (===)	*** (***)
	=== (===)	24 (2.3)	=== (===)	22 (2.4)	=== (===)	55 (2.7)
	=== (===)	211 (2.4)	=== (===)	219 (2.5)	=== (===)	213 (1.5)
<b>Non-Public</b>						
Guam	=== (===)	12 (1.7)	=== (===)	18 (2.0)	=== (===)	70 (2.3)
Nation	=== (===)	*** (***)	=== (===)	*** (***)	=== (===)	*** (***)
	=== (===)	13 (3.7)	=== (===)	15 (4.2)	=== (===)	72 (5.2)
	=== (===)	230 (5.5)	=== (===)	234 (4.1)	=== (===)	230 (3.2)
<b>Combined</b>						
Guam	=== (===)	73 (0.8)	=== (===)	10 (0.6)	=== (===)	17 (0.6)
Nation	=== (===)	*** (***)	=== (===)	*** (***)	=== (===)	*** (***)
	=== (===)	23 (2.1)	=== (===)	21 (2.3)	=== (===)	57 (2.6)
	=== (===)	212 (2.1)	=== (===)	220 (2.3)	=== (===)	215 (1.3)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





TABLE D6.2D

*Public School Teachers' Reports on the Frequency of  
 Using a Variety of Books*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	83 (0.9)	79 (0.7)	29 (0.9)	18 (0.9)	8 (0.5)	4 (0.5)
Nation	183 (1.8)	179 (1.5)	179 (2.4)	184 (2.8)	*** (***)	*** (***)
	65 (3.1)	75 (2.2)	26 (3.0)	21 (1.9)	9 (1.5)	5 (1.0)
	217 (1.8)	214 (1.4)	216 (2.3)	214 (2.4)	210 (3.3)	208 (3.5)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	64 (3.2)	81 (2.8)	30 (3.0)	16 (2.6)	6 (1.0)	2 (1.2)
Nation	193 (4.0)	183 (5.4)	198 (5.4)	*** (***)	*** (***)	*** (***)
	65 (3.7)	75 (2.6)	26 (3.6)	21 (2.3)	8 (1.7)	4 (1.1)
	224 (1.9)	223 (1.6)	222 (2.2)	225 (2.4)	214 (3.8)	216 (4.4)
<b>Black</b>						
Guam	58 (5.2)	83 (5.0)	32 (5.6)	15 (4.6)	11 (3.3)	2 (2.1)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	62 (3.8)	70 (3.8)	28 (3.9)	21 (2.9)	10 (2.6)	9 (2.0)
	193 (2.1)	186 (2.2)	195 (4.3)	187 (3.3)	*** (***)	191 (4.1)
<b>Hispanic</b>						
Guam	65 (2.6)	76 (2.2)	30 (2.5)	20 (2.1)	5 (1.0)	4 (1.0)
Nation	168 (3.7)	169 (3.0)	154 (5.6)	*** (***)	*** (***)	*** (***)
	67 (4.3)	76 (3.1)	26 (3.7)	20 (2.8)	7 (2.2)	4 (1.1)
	201 (2.8)	191 (2.7)	203 (5.1)	186 (4.2)	*** (***)	*** (***)
<b>Asian</b>						
Guam	-- (***)	78 (4.6)	-- (***)	20 (4.4)	-- (***)	2 (1.7)
Nation	-- (***)	*** (***)	-- (***)	*** (***)	-- (***)	*** (***)
	-- (***)	88 (3.4)	-- (***)	11 (3.2)	-- (***)	1 (0.6)
	-- (***)	235 (6.9)	-- (***)	*** (***)	-- (***)	*** (***)
<b>Pacific Islander</b>						
Guam	-- (***)	79 (1.2)	-- (***)	17 (1.2)	-- (***)	4 (0.6)
Nation	-- (***)	182 (1.7)	-- (***)	187 (3.7)	-- (***)	*** (***)
	-- (***)	85 (6.6)	-- (***)	11 (4.7)	-- (***)	4 (2.6)
	-- (***)	*** (***)	-- (***)	*** (***)	-- (***)	*** (***)

(continued on next page)



TABLE D6.2D (continued)

Public School Teachers' Reports on the Frequency of  
Using a Variety of Books

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	62 (2.2)	78 (1.3)	29 (1.9)	19 (1.4)	8 (1.0)	2 (0.3)
Nation	184 (3.3)	183 (2.4)	177 (3.8)	188 (4.5)	*** (***)	*** (***)
Guam	66 (3.4)	76 (2.4)	26 (3.2)	19 (2.0)	7 (1.4)	5 (1.1)
Nation	225 (2.3)	224 (1.5)	224 (3.4)	221 (3.2)	213 (5.1)	215 (3.9)
<b>Some ed after HS</b>						
Guam	60 (4.4)	71 (3.8)	38 (4.2)	24 (3.7)	2 (1.2)	5 (1.0)
Nation	192 (6.1)	189 (6.2)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	67 (4.3)	77 (2.7)	22 (3.3)	18 (2.4)	10 (3.1)	5 (1.6)
Nation	221 (2.9)	221 (2.9)	224 (5.6)	224 (4.8)	*** (***)	*** (***)
<b>HS graduate</b>						
Guam	67 (3.4)	79 (2.5)	26 (3.0)	17 (2.2)	7 (2.0)	4 (1.6)
Nation	187 (3.9)	173 (3.5)	166 (6.8)	*** (***)	*** (***)	*** (***)
Guam	63 (4.4)	70 (3.2)	27 (4.5)	26 (2.9)	10 (2.8)	4 (1.2)
Nation	213 (3.1)	205 (2.2)	211 (3.7)	211 (4.3)	*** (***)	*** (***)
<b>HS non-graduate</b>						
Guam	54 (4.8)	75 (5.6)	36 (4.3)	18 (3.9)	10 (3.1)	7 (3.6)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	65 (4.7)	71 (4.5)	26 (4.6)	21 (3.6)	9 (2.6)	8 (2.2)
Nation	199 (3.8)	185 (4.6)	*** (***)	198 (7.7)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	63 (1.5)	81 (1.1)	29 (1.5)	15 (1.2)	9 (0.8)	4 (0.8)
Nation	180 (2.1)	179 (2.2)	182 (4.1)	185 (4.3)	*** (***)	*** (***)
Guam	64 (3.3)	75 (2.4)	27 (3.3)	21 (2.2)	9 (1.5)	5 (0.9)
Nation	211 (2.1)	206 (1.7)	210 (2.6)	206 (2.9)	204 (3.4)	198 (6.8)
<b>GENDER</b>						
<b>Male</b>						
Guam	62 (1.3)	79 (1.2)	30 (1.2)	18 (1.2)	8 (0.6)	3 (0.4)
Nation	177 (2.1)	171 (2.0)	168 (3.0)	173 (3.4)	*** (***)	*** (***)
Guam	66 (3.3)	75 (2.3)	26 (3.1)	20 (1.9)	8 (1.5)	5 (1.1)
Nation	213 (2.2)	208 (1.4)	214 (2.4)	207 (3.3)	204 (4.0)	203 (4.5)
<b>Female</b>						
Guam	64 (1.6)	79 (0.8)	29 (1.5)	17 (1.1)	7 (0.7)	4 (0.6)
Nation	188 (2.4)	188 (2.0)	191 (3.1)	195 (4.5)	*** (***)	*** (***)
Guam	65 (3.1)	74 (2.3)	26 (3.0)	21 (2.0)	9 (1.8)	5 (0.9)
Nation	222 (1.8)	219 (1.6)	218 (2.6)	220 (2.3)	214 (4.0)	214 (3.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	=== (===)	79 (0.7)	=== (===)	18 (0.9)	=== (===)	4 (0.5)
Nation	=== (===)	179 (1.5)	=== (===)	184 (2.8)	=== (===)	*** (***)
Guam	=== (===)	75 (2.2)	=== (===)	21 (1.9)	=== (===)	5 (1.0)
Nation	=== (===)	214 (1.4)	=== (===)	214 (2.4)	=== (===)	208 (3.5)
<b>Non-Public</b>						
Guam	=== (===)	83 (1.0)	=== (===)	17 (1.0)	=== (===)	0 (0.0)
Nation	=== (===)	212 (3.7)	=== (===)	*** (***)	=== (===)	*** (***)
Guam	=== (===)	51 (5.7)	=== (===)	40 (5.3)	=== (===)	9 (2.5)
Nation	=== (===)	232 (3.7)	=== (===)	228 (3.8)	=== (===)	235 (4.2)
<b>Combined</b>						
Guam	=== (===)	79 (0.6)	=== (===)	18 (0.8)	=== (===)	3 (0.4)
Nation	=== (===)	184 (1.4)	=== (===)	*** (***)	=== (===)	*** (***)
Guam	=== (===)	72 (2.0)	=== (===)	23 (1.7)	=== (===)	5 (0.9)
Nation	=== (===)	215 (1.3)	=== (===)	210 (2.1)	=== (===)	213 (3.1)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



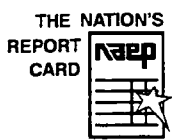


TABLE D6.2E

*Public School Teachers' Reports on the Frequency of  
Using Materials from Other Subject Areas*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	61 (1.1)	84 (0.9)	31 (1.1)	15 (0.8)	8 (0.6)	1 (0.3)
Nation	183 (1.6)	180 (1.5)	180 (2.1)	22 (2.0)	14 (2.3)	9 (1.6)
	218 (1.9)	213 (1.3)	213 (2.0)	214 (2.1)	217 (3.2)	212 (3.9)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	61 (3.5)	82 (2.6)	32 (3.5)	17 (2.4)	7 (1.9)	1 (0.7)
Nation	195 (4.0)	187 (6.4)	194 (5.4)	23 (2.3)	15 (2.8)	9 (1.9)
	226 (2.1)	223 (1.5)	219 (2.2)	229 (2.4)	221 (3.5)	220 (4.5)
<b>Black</b>						
Guam	56 (5.3)	89 (4.6)	33 (5.7)	9 (4.2)	11 (2.8)	2 (2.0)
Nation	59 (4.0)	67 (3.9)	31 (4.4)	24 (3.1)	10 (2.7)	9 (2.2)
	193 (2.3)	186 (2.3)	193 (2.9)	185 (3.5)	201 (5.1)	192 (5.4)
<b>Hispanic</b>						
Guam	62 (2.6)	83 (2.5)	31 (2.4)	15 (2.5)	7 (1.4)	2 (0.7)
Nation	168 (3.7)	170 (3.1)	158 (6.0)	21 (2.8)	15 (2.5)	8 (2.1)
	58 (3.4)	71 (3.2)	27 (3.4)	195 (5.0)	203 (4.6)	189 (6.5)
<b>Asian</b>						
Guam	— (—)	87 (4.2)	— (—)	13 (4.2)	— (—)	0 (0.0)
Nation	— (—)	76 (5.1)	— (—)	18 (3.7)	— (—)	6 (2.4)
	— (—)	233 (7.3)	— (—)	— (—)	— (—)	— (—)
<b>Pacific Islander</b>						
Guam	— (—)	83 (1.2)	— (—)	15 (1.0)	— (—)	1 (0.7)
Nation	— (—)	183 (1.7)	— (—)	11 (6.0)	— (—)	6 (3.4)
	— (—)	83 (7.0)	— (—)	— (—)	— (—)	— (—)

(continued on next page)



TABLE D6.2E (continued)

*Public School Teachers' Reports on the Frequency of  
 Using Materials from Other Subject Areas*

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	61 (2.1)	83 (1.3)	32 (2.1)	15 (1.2)	8 (1.2)	1 (0.9)
Nation	183 (3.1)	184 (2.3)	181 (2.9)	*** (***)	*** (***)	*** (***)
Guam	59 (3.1)	69 (2.5)	27 (2.7)	23 (2.2)	14 (2.4)	8 (1.7)
Nation	226 (2.4)	223 (1.6)	220 (2.9)	224 (2.8)	224 (5.3)	222 (4.4)
<b>Some ed after HS</b>						
Guam	65 (3.9)	80 (3.8)	26 (3.4)	18 (3.6)	9 (2.3)	2 (1.3)
Nation	195 (5.4)	193 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	55 (4.3)	70 (3.4)	35 (4.4)	23 (2.8)	10 (2.4)	7 (2.0)
Nation	224 (3.7)	222 (2.6)	219 (4.3)	221 (4.9)	*** (***)	*** (***)
<b>HS graduate</b>						
Guam	60 (3.4)	79 (2.8)	32 (3.1)	19 (2.8)	8 (2.2)	1 (0.4)
Nation	182 (3.8)	174 (3.5)	180 (6.4)	*** (***)	*** (***)	*** (***)
Guam	56 (3.0)	66 (3.1)	26 (3.0)	26 (2.9)	18 (2.7)	8 (1.5)
Nation	213 (3.0)	207 (2.1)	209 (3.6)	205 (5.0)	215 (4.3)	217 (4.2)
<b>HS non-graduate</b>						
Guam	52 (4.7)	80 (3.5)	34 (5.0)	18 (3.3)	15 (3.9)	1 (1.4)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	55 (4.6)	66 (4.3)	30 (4.6)	23 (4.2)	14 (3.6)	11 (2.9)
Nation	195 (2.9)	191 (4.6)	*** (***)	*** (***)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	62 (1.9)	86 (1.3)	30 (1.9)	13 (1.3)	8 (0.8)	1 (0.2)
Nation	181 (2.0)	179 (2.2)	179 (3.5)	*** (***)	*** (***)	*** (***)
Guam	53 (2.7)	70 (2.7)	32 (2.6)	20 (2.4)	15 (2.8)	10 (1.7)
Nation	211 (2.3)	205 (1.8)	208 (2.8)	208 (2.4)	211 (2.3)	202 (5.2)
<b>GENDER</b>						
<b>Male</b>						
Guam	59 (1.7)	82 (1.4)	32 (1.7)	17 (1.4)	9 (0.7)	1 (0.4)
Nation	177 (2.0)	171 (1.9)	170 (2.3)	*** (***)	*** (***)	*** (***)
Guam	57 (2.6)	69 (2.3)	30 (2.5)	22 (2.0)	13 (2.4)	9 (1.7)
Nation	214 (2.2)	208 (1.4)	209 (2.2)	206 (2.8)	212 (3.4)	208 (4.5)
<b>Female</b>						
Guam	63 (1.8)	85 (1.3)	30 (1.7)	14 (1.3)	7 (0.9)	1 (0.4)
Nation	188 (2.1)	190 (2.0)	191 (2.6)	*** (***)	*** (***)	*** (***)
Guam	55 (2.8)	69 (2.5)	30 (2.7)	23 (2.1)	15 (2.5)	8 (1.6)
Nation	222 (2.0)	219 (1.5)	217 (2.6)	221 (2.0)	221 (3.5)	217 (4.5)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	84 (0.9)	== (==)	15 (0.8)	== (==)	1 (0.3)
Nation	== (==)	180 (1.5)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	69 (2.3)	== (==)	22 (2.0)	== (==)	9 (1.6)
Nation	== (==)	213 (1.3)	== (==)	214 (2.1)	== (==)	212 (3.9)
<b>Non-Public</b>						
Guam	== (==)	79 (2.0)	== (==)	21 (2.0)	== (==)	0 (0.0)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	56 (6.2)	== (==)	33 (6.0)	== (==)	11 (2.8)
Nation	== (==)	231 (3.6)	== (==)	227 (3.5)	== (==)	238 (2.7)
<b>Combined</b>						
Guam	== (==)	83 (0.8)	== (==)	16 (0.8)	== (==)	1 (0.3)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	68 (2.2)	== (==)	24 (1.9)	== (==)	9 (1.4)
Nation	== (==)	215 (1.2)	== (==)	216 (1.9)	== (==)	215 (3.6)

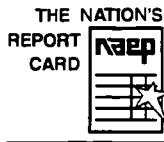
The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted.

-- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





**TABLE D6.3A**

*Public School Teachers' Reports on Asking Students to Work in a Reading Workbook or on a Worksheet*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	41 (1.0)	23 (0.8)	50 (1.1)	55 (0.9)	9 (0.5)	22 (0.8)
Nation	180 (1.7)	*** (***)	185 (2.0)	180 (1.9)	*** (***)	*** (***)
	31 (2.7)	26 (2.6)	48 (3.4)	48 (2.5)	22 (2.8)	26 (2.9)
	213 (1.8)	207 (2.5)	216 (1.7)	214 (1.4)	221 (3.3)	217 (1.9)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	38 (3.0)	32 (3.9)	57 (3.1)	51 (3.9)	4 (1.1)	18 (2.9)
Nation	192 (4.9)	*** (***)	198 (4.3)	183 (6.5)	*** (***)	*** (***)
	28 (3.0)	23 (2.8)	49 (3.9)	49 (3.0)	23 (3.3)	29 (3.4)
	220 (2.1)	220 (2.3)	223 (1.9)	223 (1.8)	227 (3.3)	224 (2.1)
<b>Black</b>						
Guam	33 (5.4)	17 (5.4)	60 (5.7)	72 (7.4)	7 (3.0)	11 (5.7)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	39 (4.1)	38 (4.8)	44 (4.0)	48 (3.4)	17 (4.1)	14 (3.1)
	196 (2.7)	183 (2.3)	192 (2.4)	188 (2.1)	195 (4.7)	189 (4.3)
<b>Hispanic</b>						
Guam	43 (2.2)	26 (1.9)	48 (2.4)	61 (2.2)	9 (0.7)	13 (1.3)
Nation	159 (5.3)	*** (***)	167 (3.1)	167 (3.5)	*** (***)	*** (***)
	40 (4.0)	29 (3.3)	46 (3.9)	45 (4.4)	14 (3.5)	26 (3.5)
	199 (3.0)	188 (4.6)	202 (3.3)	193 (3.2)	205 (5.8)	188 (4.3)
<b>Asian</b>						
Guam	-- (-)	37 (6.7)	-- (-)	41 (5.9)	-- (-)	22 (5.4)
Nation	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)
	-- (-)	17 (4.6)	-- (-)	47 (9.8)	-- (-)	36 (9.2)
	-- (-)	*** (***)	-- (-)	236 (5.5)	-- (-)	*** (***)
<b>Pacific Islander</b>						
Guam	-- (-)	21 (1.3)	-- (-)	54 (1.4)	-- (-)	25 (1.2)
Nation	-- (-)	*** (***)	-- (-)	185 (2.0)	-- (-)	*** (***)
	-- (-)	18 (6.7)	-- (-)	54 (10.6)	-- (-)	28 (8.2)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)

(continued on next page)





TABLE D6.3A (continued)

Public School Teachers' Reports on Asking Students to Work in a Reading Workbook or on a Worksheet

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	42 (2.3)	25 (1.7)	50 (2.3)	52 (2.0)	8 (1.1)	23 (1.5)
Nation	180 (3.3)	*** (***)	185 (2.9)	182 (2.7)	*** (***)	*** (***)
Guam	30 (3.2)	24 (2.9)	46 (3.5)	48 (3.0)	24 (3.1)	28 (3.3)
Nation	220 (2.5)	215 (3.2)	225 (2.4)	224 (1.7)	227 (4.9)	229 (2.1)
<b>Some ed after HS</b>						
Guam	49 (4.9)	28 (3.6)	46 (4.5)	51 (4.7)	5 (1.7)	21 (3.9)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	22 (3.4)	23 (3.2)	56 (5.8)	45 (3.8)	22 (4.6)	32 (3.8)
Nation	217 (4.7)	220 (5.6)	223 (3.6)	225 (2.8)	222 (4.3)	219 (4.3)
<b>HS graduate</b>						
Guam	40 (3.7)	22 (3.3)	50 (3.3)	54 (3.5)	10 (1.7)	23 (2.5)
Nation	179 (5.4)	*** (***)	185 (4.5)	176 (4.0)	*** (***)	*** (***)
Guam	33 (3.9)	32 (3.6)	47 (4.4)	50 (3.0)	19 (4.0)	18 (2.5)
Nation	213 (3.3)	206 (3.6)	209 (2.8)	208 (2.8)	219 (4.6)	208 (4.3)
<b>HS non-graduate</b>						
Guam	35 (4.0)	21 (3.5)	49 (4.8)	56 (4.9)	16 (3.0)	23 (4.3)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	27 (4.6)	24 (4.7)	58 (5.1)	49 (4.5)	15 (3.4)	26 (5.0)
Nation	*** (***)	188 (5.9)	197 (4.1)	193 (5.5)	*** (***)	180 (8.7)
<b>I don't know</b>						
Guam	41 (1.6)	21 (1.4)	50 (2.0)	58 (1.8)	9 (1.2)	21 (1.4)
Nation	178 (2.2)	*** (***)	185 (3.5)	161 (2.3)	*** (***)	*** (***)
Guam	33 (3.0)	27 (2.8)	46 (3.5)	48 (2.9)	21 (2.7)	26 (2.9)
Nation	205 (2.2)	200 (3.1)	211 (2.2)	206 (1.8)	217 (3.5)	210 (2.3)
<b>GENDER</b>						
<b>Male</b>						
Guam	43 (1.5)	22 (1.3)	48 (1.6)	54 (1.6)	8 (0.7)	24 (1.3)
Nation	174 (2.3)	*** (***)	176 (2.3)	171 (2.2)	*** (***)	*** (***)
Guam	30 (3.0)	27 (2.7)	47 (3.8)	47 (2.4)	23 (3.0)	26 (2.8)
Nation	211 (2.4)	203 (2.6)	211 (1.9)	208 (1.6)	216 (3.5)	213 (2.7)
<b>Female</b>						
Guam	39 (1.7)	24 (0.9)	51 (1.7)	56 (1.4)	10 (1.1)	20 (1.2)
Nation	186 (1.9)	*** (***)	194 (2.5)	169 (2.9)	*** (***)	*** (***)
Guam	32 (2.7)	25 (2.6)	48 (3.2)	49 (2.9)	20 (2.7)	26 (3.1)
Nation	215 (2.0)	212 (3.0)	222 (2.2)	221 (1.7)	225 (3.6)	222 (1.8)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	23 (0.8)	== (==)	55 (0.9)	== (==)	22 (0.8)
Nation	== (==)	*** (***)	== (==)	180 (1.9)	== (==)	*** (***)
Guam	== (==)	26 (2.6)	== (==)	48 (2.5)	== (==)	26 (2.9)
Nation	== (==)	207 (2.5)	== (==)	214 (1.4)	== (==)	217 (1.9)
<b>Non-Public</b>						
Guam	== (==)	47 (1.2)	== (==)	32 (1.4)	== (==)	21 (1.2)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	34 (5.6)	== (==)	51 (5.3)	== (==)	15 (3.9)
Nation	== (==)	230 (3.6)	== (==)	229 (3.7)	== (==)	235 (5.4)
<b>Combined</b>						
Guam	== (==)	26 (0.7)	== (==)	52 (0.8)	== (==)	22 (0.7)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	27 (2.3)	== (==)	48 (2.2)	== (==)	25 (2.6)
Nation	== (==)	210 (2.1)	== (==)	216 (1.2)	== (==)	218 (1.9)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.3B**

*Public School Students' Reports on Working in a Reading Workbook or on a Worksheet*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	46 (1.1)	48 (1.1)	28 (1.1)	27 (0.9)	26 (0.9)	25 (0.8)
Nation	191 (1.6)	190 (1.4)	183 (2.2)	180 (2.0)	169 (2.1)	170 (3.0)
	50 (1.6)	51 (1.3)	29 (1.0)	25 (0.9) <	21 (1.1)	24 (1.0)
	217 (1.1)	218 (1.3)	218 (1.7)	215 (1.4)	210 (1.7)	203 (1.9) <
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	43 (2.8)	48 (4.1)	30 (2.5)	23 (3.0)	28 (3.4)	29 (3.4)
Nation	204 (4.4)	199 (4.6)	197 (4.3)	*** (***)	180 (5.9)	*** (***)
	48 (1.9)	50 (1.6)	30 (1.2)	25 (1.2) <	22 (1.3)	25 (1.2)
	225 (1.5)	228 (1.4)	225 (1.9)	224 (1.5)	219 (2.1)	213 (2.2)
<b>Black</b>						
Guam	41 (5.1)	37 (5.6)	29 (4.5)	36 (5.4)	30 (5.3)	27 (5.7)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	58 (2.3)	54 (1.8)	24 (1.8)	23 (1.4)	18 (1.6)	23 (1.4)
	196 (2.3)	193 (2.1)	193 (2.9)	187 (3.1)	183 (2.8)	176 (2.8)
<b>Hispanic</b>						
Guam	40 (2.4)	44 (2.9)	28 (2.4)	30 (2.2)	32 (2.2)	26 (2.3)
Nation	174 (5.2)	182 (3.2)	170 (5.1)	170 (4.2)	153 (4.8)	156 (7.0)
	51 (2.2)	50 (1.5)	29 (1.8)	24 (1.3)	20 (1.5)	26 (1.4)
	202 (1.8)	196 (3.2)	202 (3.1)	189 (3.4) <	193 (4.9)	178 (4.0)
<b>Asian</b>						
Guam	— (—)	44 (6.7)	— (—)	27 (5.9)	— (—)	29 (5.3)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	47 (3.8)	— (—)	30 (3.3)	— (—)	24 (4.2)
	— (—)	233 (6.0)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	50 (1.4)	— (—)	27 (1.0)	— (—)	23 (1.0)
Nation	— (—)	190 (1.6)	— (—)	182 (2.2)	— (—)	171 (3.0)
	— (—)	42 (6.5)	— (—)	38 (6.4)	— (—)	20 (3.7)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.3B (continued)

Public School Students' Reports on Working in a Reading Workbook or on a Worksheet

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	47 (1.9)	49 (1.7)	27 (1.7)	26 (1.6)	26 (1.9)	25 (1.3)
Nation	193 (2.4)	194 (2.2)	186 (4.3)	182 (3.4)	165 (3.8)	173 (3.9)
Guam	49 (2.2)	53 (1.4)	30 (1.7)	24 (1.2)	21 (1.6)	23 (1.2)
Nation	224 (1.8)	226 (1.3)	228 (2.5)	226 (1.8)	218 (2.7)	214 (3.0)
<b>Some ed after HS</b>						
Guam	46 (4.4)	51 (4.2)	31 (4.1)	24 (4.3)	23 (3.9)	25 (4.1)
Nation	51 (4.0)	48 (3.1)	29 (3.0)	26 (3.0)	20 (2.6)	26 (2.4)
Guam	222 (2.5)	227 (2.8)	225 (4.0)	223 (3.2)	218 (6.5)	216 (4.0)
<b>HS graduate</b>						
Guam	43 (3.9)	52 (2.9)	29 (3.2)	28 (3.0)	28 (3.1)	20 (2.4)
Nation	188 (5.1)	182 (4.0)	184 (5.0)	175 (5.1)	171 (5.2)	173 (3.9)
Guam	53 (2.4)	53 (2.4)	26 (2.0)	25 (1.8)	21 (2.0)	23 (2.0)
Nation	213 (2.7)	214 (2.6)	211 (2.8)	209 (3.4)	206 (2.9)	193 (3.7)
<b>HS non-graduate</b>						
Guam	50 (4.1)	43 (5.4)	25 (4.5)	24 (4.4)	25 (4.4)	32 (5.2)
Nation	56 (3.2)	54 (4.2)	24 (3.1)	18 (2.7)	19 (2.3)	28 (2.8)
Guam	201 (3.0)	200 (4.1)	194 (5.6)	188 (2.5)	177 (3.1)	175 (7.3)
<b>I don't know</b>						
Guam	46 (1.8)	47 (1.7)	29 (1.3)	29 (1.6)	26 (1.5)	25 (1.6)
Nation	191 (2.2)	188 (2.0)	181 (2.7)	182 (3.1)	169 (3.7)	170 (3.3)
Guam	49 (1.9)	47 (1.5)	29 (1.3)	27 (1.0)	22 (1.2)	26 (1.2)
Nation	212 (1.7)	211 (1.7)	210 (2.0)	205 (2.1)	205 (2.4)	196 (2.4)
<b>GENDER</b>						
<b>Male</b>						
Guam	44 (1.6)	45 (1.4)	27 (1.4)	27 (1.4)	29 (1.2)	27 (1.3)
Nation	186 (2.6)	182 (1.6)	175 (3.4)	172 (2.3)	163 (2.3)	162 (2.9)
Guam	48 (1.7)	49 (1.4)	29 (1.1)	24 (1.1) <	23 (1.3)	27 (1.4)
Nation	213 (1.5)	215 (1.4)	214 (2.2)	208 (1.9)	208 (2.1)	198 (2.5) <
<b>Female</b>						
Guam	46 (1.5)	51 (1.7)	30 (1.6)	27 (1.5)	22 (1.2)	22 (1.1)
Nation	196 (1.8)	196 (2.0)	192 (2.4)	188 (2.5)	177 (3.1)	180 (4.7)
Guam	52 (1.9)	52 (1.5)	28 (1.3)	26 (1.1)	20 (1.2)	22 (1.0)
Nation	220 (1.2)	222 (1.6)	222 (1.9)	221 (1.6)	214 (2.3)	210 (2.0)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	48 (1.1)	== (==)	27 (0.9)	== (==)	25 (0.8)
Nation	== (==)	190 (1.4)	== (==)	180 (2.0)	== (==)	170 (3.0)
Guam	== (==)	51 (1.3)	== (==)	25 (0.9)	== (==)	24 (1.0)
Nation	== (==)	218 (1.3)	== (==)	215 (1.4)	== (==)	203 (1.9)
<b>Non-Public</b>						
Guam	== (==)	53 (3.3)	== (==)	29 (2.6)	== (==)	18 (2.0)
Nation	== (==)	216 (3.1)	== (==)	218 (6.5)	== (==)	203 (5.8)
Guam	== (==)	56 (2.3)	== (==)	28 (1.6)	== (==)	17 (1.5)
Nation	== (==)	235 (2.3)	== (==)	231 (3.1)	== (==)	222 (5.2)
<b>Combined</b>						
Guam	== (==)	49 (1.0)	== (==)	27 (0.9)	== (==)	24 (0.8)
Nation	== (==)	194 (1.2)	== (==)	186 (2.1)	== (==)	174 (2.8)
Guam	== (==)	51 (1.2)	== (==)	25 (0.8)	== (==)	24 (1.0)
Nation	== (==)	220 (1.1)	== (==)	216 (1.2)	== (==)	205 (1.6)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.3C**

*Public School Teachers' Reports on Asking Students to Write About Something They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	30 (1.1)	38 (0.9)	49 (1.0)	57 (0.9)	21 (0.9)	4 (0.4)
Nation	182 (1.8)	178 (2.2)	179 (2.1)	182 (1.7)	187 (2.6)	*** (***)
	25 (1.8)	30 (2.4)	49 (2.6)	56 (2.3)	26 (2.5)	14 (2.0)
	220 (2.7)	212 (2.5)	216 (1.9)	213 (1.5)	213 (2.4)	215 (2.6)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	23 (2.7)	36 (4.0)	50 (3.1)	60 (4.7)	27 (2.6)	4 (1.4)
Nation	*** (***)	*** (***)	190 (4.6)	188 (6.5)	*** (***)	*** (***)
	24 (2.4)	30 (2.9)	49 (3.1)	56 (2.6)	27 (3.0)	14 (2.4)
	228 (2.7)	221 (2.3)	223 (2.1)	224 (1.6)	219 (2.8)	224 (2.3)
<b>Black</b>						
Guam	29 (6.1)	23 (7.4)	43 (5.9)	72 (6.6)	29 (3.9)	4 (3.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	25 (4.0)	28 (4.3)	49 (4.4)	56 (4.8)	26 (4.1)	15 (3.3)
	192 (3.2)	186 (4.2)	194 (2.8)	185 (2.4)	196 (3.1)	192 (3.7)
<b>Hispanic</b>						
Guam	29 (2.2)	37 (2.8)	46 (2.2)	57 (3.0)	24 (1.8)	6 (1.1)
Nation	172 (4.0)	168 (4.9)	157 (4.0)	172 (3.6)	164 (6.4)	*** (***)
	24 (3.3)	30 (3.1)	53 (3.6)	57 (4.1)	23 (2.8)	13 (2.3)
	203 (3.7)	189 (4.6)	202 (3.0)	190 (2.4)	198 (4.1)	195 (5.9)
<b>Asian</b>						
Guam	--- (-)	46 (6.5)	--- (-)	54 (6.5)	--- (-)	0 (0.0)
Nation	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)
	--- (-)	39 (6.6)	--- (-)	53 (7.1)	--- (-)	8 (2.9)
	--- (-)	*** (***)	--- (-)	235 (8.6)	--- (-)	*** (***)
<b>Pacific Islander</b>						
Guam	--- (-)	39 (1.2)	--- (-)	57 (1.2)	--- (-)	4 (0.4)
Nation	--- (-)	181 (2.7)	--- (-)	185 (1.7)	--- (-)	*** (***)
	--- (-)	44 (8.3)	--- (-)	46 (8.4)	--- (-)	10 (5.0)
	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)

(continued on next page)





TABLE D6.3C (continued)

*Public School Teachers' Reports on Asking Students to Write About Something They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	28 (1.8)	41 (1.8)	52 (2.2)	55 (1.9)	20 (1.8)	4 (0.8)
Nation	178 (3.3)	180 (3.7)	180 (3.6)	186 (2.8)	189 (3.6)	*** (***)
	27 (2.3)	31 (2.8)	49 (3.1)	58 (2.7)	24 (2.8)	11 (1.8)
	230 (3.9)	224 (2.4)	222 (2.4)	222 (1.6)	222 (3.7)	225 (3.9)
<b>Some ed after HS</b>						
Guam	30 (3.3)	40 (4.5)	51 (4.9)	54 (4.2)	19 (5.0)	5 (2.2)
Nation	24 (3.4)	27 (3.3)	45 (4.3)	56 (3.6)	31 (4.2)	16 (2.9)
	226 (5.2)	217 (4.2)	224 (4.7)	224 (3.0)	215 (2.7)	225 (4.6)
<b>HS graduate</b>						
Guam	36 (4.1)	35 (3.1)	46 (3.1)	60 (3.1)	18 (3.0)	5 (1.7)
Nation	188 (5.3)	171 (5.8)	175 (4.5)	178 (4.0)	*** (***)	*** (***)
	24 (3.2)	27 (3.1)	48 (3.7)	57 (3.2)	28 (4.2)	16 (3.0)
	211 (4.7)	204 (4.0)	214 (2.6)	207 (2.8)	210 (4.7)	214 (4.1)
<b>HS non-graduate</b>						
Guam	27 (4.6)	33 (5.1)	53 (5.0)	60 (5.6)	20 (4.2)	8 (2.9)
Nation	25 (4.1)	31 (5.0)	45 (4.3)	54 (4.7)	30 (4.1)	15 (3.2)
	186 (6.9)	201 (5.1)	188 (4.9)	*** (***)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	31 (1.7)	38 (1.7)	47 (1.5)	59 (1.5)	22 (1.3)	4 (0.6)
Nation	182 (2.7)	178 (3.0)	177 (2.8)	181 (2.1)	186 (4.0)	*** (***)
	23 (2.0)	30 (2.6)	52 (2.9)	54 (2.5)	26 (2.9)	16 (2.5)
	214 (3.0)	204 (2.7)	210 (2.2)	205 (1.9)	207 (2.4)	208 (3.4)
<b>GENDER</b>						
<b>Male</b>						
Guam	29 (1.6)	38 (1.6)	50 (1.5)	57 (1.7)	20 (1.2)	5 (0.5)
Nation	176 (2.1)	168 (2.2)	171 (2.4)	173 (2.1)	179 (3.6)	*** (***)
	25 (2.3)	31 (2.6)	50 (2.6)	55 (2.4)	25 (2.5)	15 (2.1)
	217 (3.3)	207 (2.7)	212 (2.2)	208 (1.8)	209 (2.6)	209 (3.3)
<b>Female</b>						
Guam	32 (1.3)	39 (1.3)	48 (1.4)	57 (1.4)	21 (1.2)	4 (0.6)
Nation	187 (2.5)	188 (2.7)	187 (2.2)	192 (2.6)	196 (3.6)	*** (***)
	24 (1.7)	29 (2.3)	49 (2.8)	57 (2.3)	27 (2.7)	14 (1.9)
	224 (2.8)	219 (2.9)	220 (2.0)	219 (1.6)	218 (2.6)	223 (2.6)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	38 (0.9)	== (==)	57 (0.9)	== (==)	4 (0.4)
Nation	== (==)	178 (2.2)	== (==)	182 (1.7)	== (==)	*** (***)
	== (==)	30 (2.4)	== (==)	56 (2.3)	== (==)	14 (2.0)
	== (==)	212 (2.5)	== (==)	213 (1.5)	== (==)	215 (2.6)
<b>Non-Public</b>						
Guam	== (==)	47 (2.1)	== (==)	35 (2.6)	== (==)	18 (1.6)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	18 (3.6)	== (==)	56 (4.8)	== (==)	26 (4.2)
	== (==)	232 (7.1)	== (==)	228 (2.8)	== (==)	235 (4.0)
<b>Combined</b>						
Guam	== (==)	40 (0.8)	== (==)	54 (0.8)	== (==)	6 (0.4)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	29 (2.2)	== (==)	56 (2.2)	== (==)	15 (1.9)
	== (==)	214 (2.4)	== (==)	215 (1.4)	== (==)	219 (2.3)

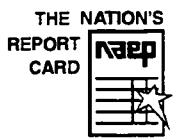
The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted.

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





**TABLE D6.3D**

*Public School Students' Reports on Writing About Something They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	26 (0.9)	30 (0.9) >	33 (1.0)	36 (0.9)	40 (1.0)	34 (1.0) <
Nation	178 (1.9)	183 (1.9)	187 (2.4)	187 (1.7)	183 (1.8)	179 (2.0)
	23 (0.8)	23 (1.0)	34 (1.0)	33 (0.7)	43 (1.2)	44 (0.9)
	210 (1.6)	208 (1.8)	217 (1.2)	215 (1.4)	217 (1.2)	216 (1.3)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	21 (1.9)	23 (2.4)	29 (3.0)	40 (4.2)	50 (3.0)	36 (3.7) <
Nation	*** (***)	*** (***)	197 (5.6)	193 (5.7)	195 (4.4)	200 (6.6)
	20 (1.1)	21 (1.1)	34 (1.3)	32 (0.9)	46 (1.6)	47 (1.2)
	219 (2.0)	220 (2.1)	225 (1.7)	224 (1.6)	224 (1.6)	224 (1.5)
<b>Black</b>						
Guam	29 (5.2)	42 (6.1)	26 (5.0)	25 (6.3)	45 (5.5)	32 (6.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	32 (1.7)	35 (1.8)	34 (1.5)	34 (1.4)	34 (1.6)	31 (1.6)
	193 (2.6)	188 (2.6)	194 (2.3)	190 (2.5)	191 (2.1)	187 (2.9)
<b>Hispanic</b>						
Guam	31 (2.1)	29 (2.4)	33 (2.6)	38 (2.0)	36 (3.0)	33 (2.0)
Nation	165 (4.3)	173 (5.0)	168 (5.7)	178 (4.0)	166 (4.2)	167 (5.2)
	27 (1.7)	25 (1.5)	35 (1.9)	34 (1.8)	37 (2.1)	41 (1.8)
	199 (3.4)	182 (3.8) <	203 (3.2)	194 (3.1)	201 (3.3)	190 (3.3)
<b>Asian</b>						
Guam	— (—)	34 (6.2)	— (—)	27 (5.5)	— (—)	39 (5.2)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	21 (3.3)	— (—)	42 (5.6)	— (—)	38 (6.4)
	— (—)	*** (***)	— (—)	236 (8.6)	— (—)	232 (6.0)
<b>Pacific Islander</b>						
Guam	— (—)	31 (1.2)	— (—)	35 (1.1)	— (—)	34 (1.1)
Nation	— (—)	185 (2.0)	— (—)	189 (2.1)	— (—)	179 (2.4)
	— (—)	21 (5.5)	— (—)	40 (6.1)	— (—)	39 (7.1)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)



TABLE D6.3D (continued)

*Public School Students' Reports on Writing About  
 Something They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	28 (1.6)	32 (1.7)	32 (1.6)	36 (1.7)	41 (1.9)	32 (1.4) <
Nation	177 (3.2)	186 (3.0)	186 (3.6)	191 (2.9)	186 (3.3)	180 (3.3)
	24 (1.2)	24 (1.3)	36 (1.6)	34 (1.1)	40 (1.7)	42 (1.2)
	218 (2.5)	217 (2.3)	226 (2.1)	225 (1.8)	225 (1.9)	224 (1.8)
<b>Some ed after HS</b>						
Guam	25 (4.2)	23 (2.8)	34 (4.7)	47 (3.7)	41 (4.7)	30 (3.8)
Nation	19 (1.8)	23 (2.3)	37 (2.9)	33 (2.4)	44 (2.9)	44 (2.5)
	216 (5.1)	215 (4.1)	221 (3.5)	223 (3.3)	225 (3.5)	226 (3.2)
<b>HS graduate</b>						
Guam	30 (3.0)	34 (2.3)	32 (2.8)	33 (2.8)	38 (3.3)	33 (2.5)
Nation	176 (4.7)	177 (5.3)	192 (6.1)	179 (5.3)	179 (4.2)	177 (5.6)
	25 (2.3)	24 (2.1)	31 (2.3)	36 (1.9)	44 (2.3)	40 (2.3)
	210 (3.3)	206 (4.8)	212 (3.3)	205 (2.9)	212 (2.6)	213 (2.6)
<b>HS non-graduate</b>						
Guam	21 (4.0)	25 (4.6)	30 (4.3)	27 (4.2)	49 (4.5)	47 (4.8)
Nation	26 (3.3)	28 (3.5)	29 (3.1)	34 (3.7)	45 (3.6)	38 (2.8)
	193 (5.0)	186 (5.8)	195 (4.9)	187 (5.2)	206 (4.5)	193 (5.1)
<b>I don't know</b>						
Guam	25 (1.3)	30 (1.6)	36 (1.6)	35 (1.6)	39 (1.6)	35 (1.6)
Nation	179 (3.0)	183 (2.9)	185 (3.0)	185 (2.4)	183 (2.5)	181 (2.3)
	22 (1.1)	22 (1.2)	34 (1.4)	31 (1.1)	44 (1.7)	47 (1.6)
	203 (2.3)	198 (1.8)	210 (1.4)	208 (1.9)	213 (1.7)	208 (2.2)
<b>GENDER</b>						
<b>Male</b>						
Guam	28 (1.2)	27 (1.4)	34 (1.2)	35 (1.3)	40 (1.3)	38 (1.6)
Nation	170 (2.5)	176 (2.9)	180 (3.1)	178 (2.2)	177 (2.4)	171 (2.2)
	22 (1.2)	22 (1.2)	33 (1.4)	32 (1.0)	44 (1.8)	46 (1.0)
	206 (2.4)	203 (2.6)	214 (1.9)	209 (1.9)	213 (1.4)	210 (1.6)
<b>Female</b>						
Guam	27 (1.3)	34 (1.4) >	33 (1.8)	36 (1.5)	40 (1.5)	30 (1.2) <
Nation	187 (2.3)	188 (2.7)	194 (2.8)	197 (2.3)	191 (2.4)	189 (3.2)
	24 (0.9)	25 (1.2)	35 (1.1)	34 (1.2)	41 (1.2)	41 (1.3)
	214 (1.9)	212 (2.1)	220 (1.2)	221 (1.6)	223 (1.7)	223 (1.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	30 (0.9)	== (==)	36 (0.9)	== (==)	34 (1.0)
Nation	== (==)	183 (1.9)	== (==)	187 (1.7)	== (==)	179 (2.0)
	== (==)	23 (1.0)	== (==)	33 (0.7)	== (==)	44 (0.9)
	== (==)	208 (1.8)	== (==)	215 (1.4)	== (==)	216 (1.3)
<b>Non-Public</b>						
Guam	== (==)	23 (1.5)	== (==)	38 (2.4)	== (==)	39 (1.7)
Nation	== (==)	204 (4.1)	== (==)	216 (2.5)	== (==)	218 (4.5)
	== (==)	18 (1.4)	== (==)	32 (1.5)	== (==)	50 (1.9)
	== (==)	226 (5.0)	== (==)	231 (3.0)	== (==)	233 (2.4)
<b>Combined</b>						
Guam	== (==)	29 (0.8)	== (==)	36 (0.9)	== (==)	35 (0.9)
Nation	== (==)	185 (1.7)	== (==)	192 (1.5)	== (==)	185 (1.9)
	== (==)	23 (0.9)	== (==)	33 (0.6)	== (==)	44 (0.9)
	== (==)	209 (1.7)	== (==)	217 (1.2)	== (==)	218 (1.2)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





1994 Trial State Assessment

**TABLE D6.4A**

*Public School Teachers' Reports on Discussing New or Difficult Vocabulary*

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	85 (1.1)	83 (0.9)	35 (1.1)	37 (0.9)	0 (0.0)	0 (0.0)
Nation	182 (1.8)	182 (1.6)	181 (1.8)	177 (2.1)	*** (***)	*** (***)
	214 (1.8)	211 (1.4)	218 (1.9)	218 (1.5)	218 (7.6)	*** (***)
<b>RACE/ETHNICITY</b>						
<b>White</b>						
Guam	81 (2.8)	89 (3.1)	39 (2.8)	31 (3.1)	0 (0.0)	0 (0.0)
Nation	195 (3.4)	189 (5.8)	192 (5.8)	*** (***)	*** (***)	*** (***)
	47 (2.9)	61 (2.8)	51 (2.9)	38 (3.0)	2 (0.9)	1 (0.5)
	222 (1.9)	221 (1.8)	224 (2.0)	226 (1.7)	*** (***)	*** (***)
<b>Black</b>						
Guam	58 (7.1)	73 (6.7)	41 (7.1)	27 (6.7)	0 (0.0)	0 (0.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	53 (3.9)	61 (4.4)	45 (3.9)	38 (4.2)	2 (0.8)	1 (0.5)
	194 (2.6)	185 (2.4)	195 (2.9)	190 (2.5)	*** (***)	*** (***)
<b>Hispanic</b>						
Guam	64 (2.5)	61 (3.0)	36 (2.5)	39 (3.0)	0 (0.0)	0 (0.0)
Nation	165 (3.9)	172 (3.7)	162 (3.4)	166 (4.6)	*** (***)	*** (***)
	63 (4.0)	71 (3.3)	36 (3.5)	29 (3.2)	1 (1.1)	1 (0.4)
	198 (2.2)	189 (2.6)	207 (4.1)	194 (3.6)	*** (***)	*** (***)
<b>Asian</b>						
Guam	--- (-)	60 (6.4)	--- (-)	40 (6.4)	--- (-)	0 (0.0)
Nation	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)
	--- (-)	72 (5.0)	--- (-)	28 (5.0)	--- (-)	0 (0.0)
	--- (-)	231 (7.7)	--- (-)	*** (***)	--- (-)	*** (***)
<b>Pacific Islander</b>						
Guam	--- (-)	62 (1.4)	--- (-)	38 (1.4)	--- (-)	0 (0.0)
Nation	--- (-)	164 (1.8)	--- (-)	161 (2.3)	--- (-)	*** (***)
	--- (-)	78 (6.8)	--- (-)	22 (6.8)	--- (-)	0 (0.0)
	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)

(continued on next page)

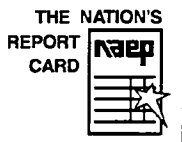


TABLE D6.4A (continued)

Public School Teachers' Reports on Discussing New or Difficult Vocabulary

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	64 (2.0)	63 (2.0)	36 (2.0)	37 (2.0)	0 (0.0)	0 (0.0)
Nation	181 (3.0)	185 (2.9)	183 (3.0)	181 (3.1)	181 (**)	181 (**)
	49 (2.5)	61 (3.0)	49 (2.6)	39 (3.0)	2 (1.0)	1 (0.4)
	223 (2.5)	220 (2.0)	225 (2.4)	228 (2.1)	*** (**)	*** (**)
<b>Some ed after HS</b>						
Guam	67 (4.9)	60 (4.7)	33 (4.9)	40 (4.7)	0 (0.0)	0 (0.0)
Nation	189 (5.7)	196 (6.5)	*** (**)	*** (**)	*** (**)	*** (**)
	54 (3.6)	57 (4.5)	45 (3.4)	42 (4.5)	1 (0.7)	0 (0.4)
	219 (3.4)	220 (2.8)	226 (3.8)	224 (3.3)	*** (**)	*** (**)
<b>HS graduate</b>						
Guam	88 (3.2)	86 (3.1)	32 (3.2)	34 (3.1)	0 (0.0)	0 (0.0)
Nation	183 (3.8)	178 (4.4)	178 (5.4)	167 (5.4)	*** (**)	*** (**)
	45 (4.4)	64 (3.2)	52 (4.1)	35 (3.2)	3 (1.3)	1 (0.9)
	208 (3.0)	205 (2.2)	216 (3.1)	212 (3.4)	*** (**)	*** (**)
<b>HS non-graduate</b>						
Guam	61 (5.1)	63 (5.4)	39 (5.1)	37 (5.4)	0 (0.0)	0 (0.0)
Nation	*** (**)	*** (**)	*** (**)	*** (**)	*** (**)	*** (**)
	48 (4.7)	61 (5.0)	51 (4.6)	38 (5.0)	2 (1.0)	1 (0.8)
	193 (4.1)	189 (3.9)	204 (6.1)	187 (5.8)	*** (**)	*** (**)
<b>I don't know</b>						
Guam	65 (1.7)	62 (1.7)	35 (1.7)	38 (1.7)	0 (0.0)	0 (0.0)
Nation	181 (1.9)	161 (2.0)	179 (3.7)	178 (2.8)	*** (**)	*** (**)
	50 (2.7)	65 (2.5)	48 (2.7)	34 (2.7)	2 (0.8)	1 (0.7)
	209 (2.2)	204 (1.9)	212 (2.1)	208 (1.9)	*** (**)	*** (**)
<b>GENDER</b>						
<b>Male</b>						
Guam	65 (1.6)	63 (1.2)	35 (1.6)	37 (1.2)	0 (0.0)	0 (0.0)
Nation	175 (2.2)	174 (2.0)	173 (2.6)	167 (2.8)	*** (**)	*** (**)
	51 (2.8)	62 (2.6)	47 (2.7)	36 (2.6)	2 (0.8)	1 (0.6)
	210 (2.1)	206 (1.8)	215 (2.4)	212 (2.0)	*** (**)	*** (**)
<b>Female</b>						
Guam	65 (1.4)	63 (1.5)	35 (1.4)	37 (1.5)	0 (0.0)	0 (0.0)
Nation	189 (2.0)	190 (2.4)	189 (2.2)	188 (2.8)	*** (**)	*** (**)
	48 (2.4)	62 (2.6)	50 (2.2)	37 (2.7)	2 (0.7)	1 (0.4)
	219 (1.9)	216 (1.6)	221 (1.9)	224 (1.6)	*** (**)	*** (**)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	63 (0.9)	== (==)	37 (0.9)	== (==)	0 (0.0)
Nation	== (==)	182 (1.6)	== (==)	177 (2.1)	== (==)	*** (**)
	== (==)	62 (2.5)	== (==)	37 (2.6)	== (==)	1 (0.5)
	== (==)	211 (1.4)	== (==)	218 (1.5)	== (==)	*** (**)
<b>Non-Public</b>						
Guam	== (==)	76 (1.9)	== (==)	24 (1.9)	== (==)	0 (0.0)
Nation	== (==)	217 (3.7)	== (==)	*** (**)	== (==)	*** (**)
	== (==)	54 (5.4)	== (==)	42 (5.5)	== (==)	4 (1.6)
	== (==)	231 (3.9)	== (==)	230 (3.0)	== (==)	*** (**)
<b>Combined</b>						
Guam	== (==)	65 (0.8)	== (==)	35 (0.8)	== (==)	0 (0.0)
Nation	== (==)	187 (1.4)	== (==)	*** (**)	== (==)	*** (**)
	== (==)	61 (2.2)	== (==)	37 (2.2)	== (==)	1 (0.5)
	== (==)	213 (1.4)	== (==)	219 (1.3)	== (==)	*** (**)

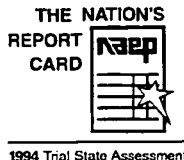
The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted.

-- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.





**TABLE D6.4B**

*Public School Students' Reports on Discussing New or Difficult Vocabulary*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	29 (1.0)	35 (1.0) >	37 (1.0)	33 (1.2) <	34 (1.0)	32 (1.0)
Nation	185 (2.1)	184 (1.9)	188 (1.9)	187 (1.5)	176 (1.8)	175 (2.3)
	31 (0.9)	32 (0.8)	39 (1.0)	36 (0.8)	30 (0.8)	31 (0.8)
	215 (1.4)	214 (1.6)	220 (1.3)	218 (1.4)	209 (1.3)	207 (1.4)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	25 (2.6)	30 (3.1)	40 (3.2)	31 (5.3)	35 (3.0)	39 (4.4)
Nation	199 (5.9)	187 (7.9)	202 (4.6)	204 (5.7)	184 (5.8)	186 (6.8)
	29 (1.0)	31 (0.9)	39 (1.3)	38 (0.9)	31 (1.1)	31 (1.0)
	224 (1.6)	225 (1.7)	228 (1.7)	227 (1.5)	216 (1.6)	216 (1.9)
<b>Black</b>						
Guam	26 (4.3)	43 (7.2)	28 (5.4)	23 (4.4)	46 (5.5)	35 (5.7)
Nation	38 (2.1)	39 (2.1)	34 (1.9)	30 (2.0)	28 (1.8)	31 (1.9)
	195 (2.5)	190 (3.0)	194 (2.6)	189 (3.0)	187 (3.0)	181 (1.9)
<b>Hispanic</b>						
Guam	32 (2.2)	38 (2.0)	32 (2.3)	31 (1.8)	36 (2.6)	31 (2.2)
Nation	165 (5.5)	178 (3.7)	172 (4.3)	173 (4.2)	160 (5.2)	164 (3.7)
	34 (1.7)	33 (1.9)	39 (2.1)	34 (1.8)	27 (1.8)	33 (1.5)
	202 (2.8)	192 (3.8)	203 (2.4)	192 (4.2)	193 (3.7)	184 (2.6)
<b>Asian</b>						
Guam	-- (--)	34 (6.1)	-- (--)	35 (6.7)	-- (--)	31 (5.4)
Nation	-- (--)	35 (3.4)	-- (--)	41 (3.3)	-- (--)	24 (4.5)
	-- (--)	*** (***)	-- (--)	234 (6.7)	-- (--)	*** (***)
<b>Pacific Islander</b>						
Guam	-- (--)	35 (1.2)	-- (--)	34 (1.3)	-- (--)	31 (1.2)
Nation	-- (--)	186 (2.0)	-- (--)	188 (1.7)	-- (--)	176 (2.8)
	-- (--)	33 (6.6)	-- (--)	45 (5.7)	-- (--)	22 (5.2)
	-- (--)	*** (***)	-- (--)	*** (***)	-- (--)	*** (***)

(continued on next page)





TABLE D6.4B (continued)

## Public School Students' Reports on Discussing New or Difficult Vocabulary

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	27 (1.7)	38 (1.9) >	40 (2.0)	33 (1.7)	33 (1.8)	29 (1.7)
Nation	181 (4.8)	189 (3.0)	190 (2.9)	188 (2.4)	178 (3.3)	178 (3.9)
	31 (1.2)	33 (1.1)	41 (1.4)	38 (1.0)	28 (1.2)	29 (1.0)
	222 (2.2)	224 (2.2)	228 (2.0)	226 (1.7)	218 (2.2)	217 (1.9)
<b>Some ed after HS</b>						
Guam	28 (4.8)	32 (4.1)	34 (4.8)	38 (3.7)	39 (5.4)	31 (4.1)
Nation	31 (2.1)	35 (2.4)	40 (2.7)	40 (2.6)	29 (2.2)	28 (2.6)
	221 (3.3)	227 (3.1)	224 (3.9)	225 (3.3)	218 (4.0)	212 (3.8)
<b>HS graduate</b>						
Guam	27 (2.4)	37 (3.1)	42 (2.5)	31 (2.9)	31 (2.8)	32 (2.7)
Nation	182 (4.8)	175 (4.0)	190 (4.7)	186 (5.0)	172 (5.3)	168 (4.7)
	33 (2.5)	32 (2.0)	37 (2.3)	35 (2.3)	30 (2.3)	33 (2.0)
	210 (3.5)	205 (3.8)	217 (2.9)	213 (3.2)	206 (2.9)	205 (2.8)
<b>HS non-graduate</b>						
Guam	31 (3.6)	36 (4.9)	32 (4.0)	20 (4.2)	37 (4.2)	43 (5.2)
Nation	28 (3.0)	32 (2.9)	37 (3.0)	35 (3.9)	35 (2.9)	33 (4.0)
	199 (3.6)	192 (6.1)	207 (3.9)	196 (4.7)	188 (5.4)	180 (5.9)
<b>I don't know</b>						
Guam	30 (1.3)	33 (1.7)	34 (1.5)	33 (2.0)	36 (1.6)	34 (1.7)
Nation	188 (3.1)	182 (2.6)	184 (2.8)	187 (2.5)	175 (2.7)	176 (3.0)
	31 (1.4)	31 (1.3)	36 (1.5)	34 (1.2)	33 (1.4)	34 (1.2)
	210 (2.1)	206 (1.9)	214 (1.5)	211 (2.2)	203 (1.9)	199 (1.8)
<b>GENDER</b>						
<b>Male</b>						
Guam	27 (1.3)	34 (1.5) >	38 (1.5)	33 (1.6)	35 (1.6)	33 (1.5)
Nation	175 (3.0)	175 (2.2)	181 (2.3)	179 (2.1)	172 (2.3)	166 (2.8)
	30 (1.0)	29 (1.0)	38 (1.2)	35 (1.0)	32 (0.9)	35 (1.0)
	211 (2.1)	208 (2.3)	216 (1.7)	213 (2.0)	207 (1.8)	204 (1.7)
<b>Female</b>						
Guam	30 (1.5)	37 (1.3) >	36 (1.6)	32 (1.4)	34 (1.6)	31 (1.2)
Nation	194 (2.5)	193 (2.7)	195 (2.7)	195 (2.3)	181 (2.4)	184 (3.1)
	33 (1.4)	36 (1.0)	39 (1.5)	37 (1.1)	28 (1.3)	27 (1.0)
	219 (1.4)	220 (1.5)	225 (1.5)	223 (1.4)	212 (1.8)	211 (1.9)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	35 (1.0)	== (==)	33 (1.2)	== (==)	32 (1.0)
Nation	== (==)	184 (1.9)	== (==)	187 (1.5)	== (==)	175 (2.3)
	== (==)	32 (0.8)	== (==)	36 (0.8)	== (==)	31 (0.8)
	== (==)	214 (1.6)	== (==)	218 (1.4)	== (==)	207 (1.4)
<b>Non-Public</b>						
Guam	== (==)	39 (1.6)	== (==)	37 (1.9)	== (==)	24 (2.0)
Nation	== (==)	219 (3.9)	== (==)	215 (4.3)	== (==)	203 (4.9)
	== (==)	32 (1.6)	== (==)	46 (2.0)	== (==)	22 (1.6)
	== (==)	234 (2.9)	== (==)	235 (3.0)	== (==)	220 (3.6)
<b>Combined</b>						
Guam	== (==)	36 (0.9)	== (==)	33 (1.0)	== (==)	31 (0.9)
Nation	== (==)	190 (1.8)	== (==)	192 (1.4)	== (==)	178 (2.2)
	== (==)	32 (0.8)	== (==)	37 (0.8)	== (==)	30 (0.7)
	== (==)	216 (1.4)	== (==)	220 (1.4)	== (==)	208 (1.3)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.4C**

*Public School Teachers' Reports on Asking Students to Talk With Each Other About What They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	34 (1.0)	45 (0.8)	48 (1.1)	41 (1.0)	18 (0.8)	15 (0.7)
Nation	180 (2.6)	182 (2.3)	181 (1.7)	179 (1.8)	184 (2.4)	*** (***)
	32 (2.6)	34 (2.5)	49 (3.0)	48 (2.5)	19 (2.7)	18 (1.8)
	215 (2.2)	211 (2.2)	218 (1.7)	215 (1.5)	213 (2.9)	215 (2.9)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	33 (3.1)	50 (4.3)	49 (3.3)	37 (3.6)	17 (2.2)	13 (2.5)
Nation	192 (4.4)	187 (4.8)	193 (5.4)	*** (***)	*** (***)	*** (***)
	31 (2.8)	32 (2.9)	50 (3.5)	50 (2.9)	19 (3.2)	18 (2.2)
	222 (2.4)	222 (2.2)	225 (1.8)	223 (1.7)	221 (3.2)	225 (2.6)
<b>Black</b>						
Guam	34 (5.9)	37 (8.1)	48 (6.5)	54 (7.6)	18 (5.2)	9 (4.4)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	37 (3.8)	40 (5.0)	43 (4.0)	40 (4.7)	20 (3.6)	20 (2.8)
	191 (2.8)	183 (3.0)	198 (3.3)	188 (2.9)	190 (3.5)	190 (4.2)
<b>Hispanic</b>						
Guam	36 (1.9)	45 (3.0)	51 (2.3)	41 (3.6)	13 (1.5)	14 (2.2)
Nation	164 (5.7)	172 (4.8)	161 (3.6)	169 (4.5)	*** (***)	*** (***)
	32 (3.1)	35 (4.0)	48 (3.2)	49 (4.1)	20 (2.4)	16 (2.2)
	203 (3.3)	186 (4.4)	202 (3.9)	192 (2.4)	198 (4.3)	189 (5.9)
<b>Asian</b>						
Guam	-- (-)	54 (6.6)	-- (-)	28 (7.7)	-- (-)	18 (3.8)
Nation	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)
	-- (-)	43 (7.5)	-- (-)	45 (7.8)	-- (-)	13 (3.6)
	-- (-)	239 (7.8)	-- (-)	226 (8.3)	-- (-)	*** (***)
<b>Pacific Islander</b>						
Guam	-- (-)	44 (1.4)	-- (-)	41 (1.4)	-- (-)	15 (0.9)
Nation	-- (-)	184 (2.6)	-- (-)	183 (2.0)	-- (-)	*** (***)
	-- (-)	54 (11.0)	-- (-)	38 (10.6)	-- (-)	8 (3.0)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)

(continued on next page)





TABLE D6.4C (continued)

*Public School Teachers' Reports on Asking Students to Talk With Each Other About What They Have Read*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	33 (1.8)	46 (2.2)	48 (2.1)	40 (2.1)	19 (1.4)	14 (1.4)
Nation	178 (4.0)	184 (2.9)	182 (3.1)	183 (3.4)	187 (3.4)	*** (***)
	33 (3.2)	36 (2.9)	49 (3.6)	46 (2.7)	18 (3.0)	17 (2.2)
	224 (3.6)	224 (2.3)	225 (2.4)	223 (1.8)	221 (3.8)	224 (3.7)
<b>Some ed after HS</b>						
Guam	33 (4.2)	46 (4.3)	49 (4.3)	35 (4.2)	18 (2.9)	19 (3.4)
Nation	31 (3.6)	27 (3.3)	49 (4.4)	54 (4.0)	19 (3.9)	19 (3.2)
	217 (4.9)	217 (4.8)	227 (3.1)	222 (2.9)	*** (***)	229 (4.1)
<b>HS graduate</b>						
Guam	35 (3.0)	44 (3.0)	48 (3.7)	45 (3.4)	18 (2.6)	12 (2.2)
Nation	186 (5.1)	180 (4.6)	180 (4.9)	171 (5.1)	*** (***)	*** (***)
	35 (4.3)	30 (2.9)	44 (4.3)	49 (3.1)	21 (3.5)	21 (2.8)
	208 (3.0)	202 (4.1)	215 (3.0)	208 (2.5)	214 (4.6)	215 (5.2)
<b>HS non-graduate</b>						
Guam	22 (4.4)	40 (5.0)	63 (4.9)	42 (5.4)	15 (3.2)	18 (4.3)
Nation	30 (4.9)	27 (3.3)	46 (4.4)	52 (3.3)	23 (3.4)	21 (3.7)
	189 (6.6)	185 (4.5)	200 (4.5)	192 (4.9)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	37 (1.7)	44 (1.6)	45 (1.4)	41 (1.4)	18 (1.2)	15 (1.4)
Nation	180 (2.9)	180 (2.9)	180 (2.9)	179 (2.3)	184 (3.5)	*** (***)
	30 (2.6)	35 (2.9)	50 (3.2)	48 (3.0)	19 (2.8)	17 (1.9)
	209 (2.1)	200 (2.6)	213 (2.1)	210 (1.9)	207 (3.2)	208 (4.1)
<b>GENDER</b>						
<b>Male</b>						
Guam	34 (1.5)	45 (1.7)	48 (1.4)	40 (1.7)	16 (1.3)	15 (0.9)
Nation	173 (2.9)	174 (2.1)	174 (2.0)	168 (2.7)	177 (3.9)	*** (***)
	32 (2.7)	35 (2.7)	49 (3.2)	47 (2.7)	19 (2.8)	18 (1.8)
	211 (3.1)	208 (2.2)	215 (2.1)	208 (1.7)	209 (3.2)	207 (3.7)
<b>Female</b>						
Guam	35 (1.5)	45 (1.4)	47 (1.7)	41 (1.4)	18 (1.2)	14 (1.2)
Nation	188 (3.1)	190 (3.5)	189 (2.4)	190 (2.4)	193 (3.0)	*** (***)
	31 (2.6)	33 (2.5)	49 (3.0)	49 (2.5)	19 (2.7)	18 (2.0)
	218 (2.1)	214 (2.7)	223 (2.0)	221 (1.6)	217 (3.4)	223 (2.7)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	45 (0.8)	== (==)	41 (1.0)	== (==)	15 (0.7)
Nation	== (==)	182 (2.3)	== (==)	179 (1.8)	== (==)	*** (***)
	== (==)	34 (2.5)	== (==)	48 (2.5)	== (==)	18 (1.8)
	== (==)	211 (2.2)	== (==)	215 (1.5)	== (==)	215 (2.9)
<b>Non-Public</b>						
Guam	== (==)	23 (1.9)	== (==)	51 (2.1)	== (==)	26 (0.6)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	28 (4.7)	== (==)	45 (4.6)	== (==)	27 (4.6)
	== (==)	229 (4.8)	== (==)	231 (2.8)	== (==)	231 (4.7)
<b>Combined</b>						
Guam	== (==)	42 (0.8)	== (==)	42 (0.9)	== (==)	16 (0.6)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	33 (2.2)	== (==)	48 (2.3)	== (==)	19 (1.7)
	== (==)	212 (2.0)	== (==)	216 (1.4)	== (==)	217 (2.6)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.4D**

*Public School Students' Reports on Talking With Each Other About What They Have Read*

1994 Trial State Assessment

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>TOTAL</b>			
Guam	23 (0.9)	32 (1.0)	45 (1.1)
Nation	175 (1.9)	179 (1.7)	187 (1.8)
	17 (0.7)	30 (0.6)	53 (0.9)
	202 (2.0)	213 (1.4)	218 (1.3)
<b>RACE/ ETHNICITY</b>			
<b>White</b>			
Guam	14 (2.4)	32 (2.6)	54 (3.6)
Nation	*** (***)	184 (7.4)	201 (4.8)
	14 (0.7)	30 (0.7)	56 (1.2)
	218 (2.5)	222 (1.8)	225 (1.3)
<b>Black</b>			
Guam	24 (5.3)	35 (5.2)	41 (4.6)
Nation	*** (***)	*** (***)	*** (***)
	27 (1.4)	29 (1.0)	44 (1.6)
	178 (2.7)	188 (2.8)	193 (2.4)
<b>Hispanic</b>			
Guam	24 (2.0)	34 (2.7)	42 (2.7)
Nation	165 (4.6)	170 (4.0)	177 (3.9)
	23 (2.3)	32 (1.9)	45 (2.5)
	181 (4.5)	190 (3.4)	194 (3.0)
<b>Asian</b>			
Guam	21 (4.6)	40 (6.6)	40 (6.4)
Nation	*** (***)	*** (***)	*** (***)
	12 (1.8)	28 (3.1)	60 (3.9)
	*** (***)	*** (***)	234 (6.1)
<b>Pacific Islander</b>			
Guam	24 (1.0)	30 (1.0)	45 (1.2)
Nation	178 (2.5)	183 (1.6)	188 (2.1)
	15 (3.9)	34 (6.5)	51 (6.2)
	*** (***)	*** (***)	*** (***)

(continued on next page)





TABLE D6.4D (continued)

*Public School Students' Reports on Talking With Each Other About What They Have Read*

1994 Trial State Assessment

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>PARENTS' EDUCATION</b>			
<b>College graduate</b>			
Guam	23 (1.3)	34 (1.9)	43 (1.9)
Nation	178 (3.0)	182 (3.0)	192 (2.7)
	17 (0.8)	31 (1.1)	52 (1.4)
	210 (2.9)	224 (1.8)	227 (1.8)
<b>Some ed after HS</b>			
Guam	26 (3.0)	32 (3.6)	43 (4.0)
Nation	*** (***)	*** (***)	*** (***)
	15 (1.6)	31 (2.3)	54 (2.5)
	211 (4.8)	221 (2.9)	227 (3.0)
<b>HS graduate</b>			
Guam	26 (2.4)	32 (2.5)	42 (3.1)
Nation	171 (5.0)	176 (5.4)	180 (4.5)
	20 (1.8)	29 (1.9)	51 (1.9)
	202 (3.8)	205 (3.5)	212 (2.6)
<b>HS non-graduate</b>			
Guam	20 (4.1)	34 (4.2)	45 (5.2)
Nation	*** (***)	*** (***)	*** (***)
	20 (2.4)	31 (3.7)	49 (3.7)
	*** (***)	191 (7.1)	193 (4.3)
<b>I don't know</b>			
Guam	21 (1.4)	29 (1.3)	49 (1.6)
Nation	176 (3.2)	178 (2.8)	186 (2.1)
	18 (1.2)	28 (1.1)	54 (1.7)
	195 (2.9)	202 (2.2)	210 (1.7)
<b>GENDER</b>			
<b>Male</b>			
Guam	23 (1.1)	31 (1.4)	46 (1.5)
Nation	168 (2.4)	171 (2.4)	179 (2.0)
	16 (0.7)	27 (1.1)	56 (1.1)
	196 (2.8)	206 (1.9)	213 (1.5)
<b>Female</b>			
Guam	22 (1.4)	33 (1.4)	45 (1.5)
Nation	185 (3.2)	187 (2.7)	196 (2.2)
	19 (1.0)	33 (0.8)	49 (1.4)
	207 (2.2)	218 (1.6)	224 (1.4)
<b>SCHOOL TYPE</b>			
<b>Public</b>			
Guam	23 (0.9)	32 (1.0)	45 (1.1)
Nation	176 (1.9)	179 (1.7)	187 (1.8)
	17 (0.7)	30 (0.6)	53 (0.9)
	202 (2.0)	213 (1.4)	218 (1.3)
<b>Non-Public</b>			
Guam	17 (1.7)	30 (2.0)	53 (3.1)
Nation	201 (2.9)	214 (4.3)	217 (3.7)
	12 (1.2)	27 (1.4)	61 (1.8)
	223 (4.7)	228 (3.5)	235 (2.3)
<b>Combined</b>			
Guam	22 (0.8)	31 (0.9)	47 (1.0)
Nation	179 (1.8)	184 (1.6)	192 (1.6)
	17 (0.6)	30 (0.6)	54 (0.9)
	203 (1.8)	214 (1.2)	220 (1.2)

The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D6.4E

*Public School Teachers' Reports on Asking Students  
to Do a Group Activity or Project About What They  
Have Read*

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	5 (0.5)	15 (0.7)	24 (1.0)	32 (1.1)	71 (1.1)	52 (1.0)
Nation	3 (0.8)	5 (1.1)	21 (2.4)	28 (2.4)	76 (2.5)	67 (2.3)
	220 (4.5)	207 (5.5)	218 (2.3)	214 (2.0)	215 (1.5)	214 (1.3)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	4 (0.9)	16 (3.6)	19 (2.5)	33 (4.5)	77 (2.6)	50 (5.1)
Nation	3 (0.9)	4 (1.2)	21 (2.7)	29 (3.2)	75 (3.0)	67 (3.0)
	229 (4.4)	221 (5.8)	225 (2.7)	222 (2.4)	222 (1.7)	223 (1.4)
<b>Black</b>						
Guam	8 (4.1)	11 (8.5)	17 (4.5)	28 (6.5)	75 (5.6)	62 (8.1)
Nation	2 (1.2)	4 (1.5)	20 (3.7)	23 (2.2)	77 (3.7)	73 (2.5)
	*** (***)	*** (***)	195 (3.7)	163 (3.9)	194 (2.1)	188 (1.8)
<b>Hispanic</b>						
Guam	5 (1.0)	14 (1.7)	19 (2.2)	33 (2.9)	75 (2.1)	53 (2.9)
Nation	5 (1.7)	7 (1.9)	18 (3.1)	27 (2.4)	77 (3.3)	66 (2.6)
	*** (***)	*** (***)	204 (5.1)	194 (3.8)	201 (2.6)	190 (2.6)
<b>Asian</b>						
Guam	— (—)	24 (5.4)	— (—)	30 (7.6)	— (—)	46 (7.2)
Nation	— (—)	2 (1.4)	— (—)	41 (6.7)	— (—)	57 (6.5)
	— (—)	*** (***)	— (—)	230 (10.1)	— (—)	235 (6.0)
<b>Pacific Islander</b>						
Guam	— (—)	15 (0.8)	— (—)	32 (1.5)	— (—)	52 (1.6)
Nation	— (—)	10 (4.4)	— (—)	49 (11.3)	— (—)	42 (9.6)
	— (—)	185 (3.5)	— (—)	187 (2.2)	— (—)	180 (2.0)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.4E (continued)

*Public School Teachers' Reports on Asking Students to Do a Group Activity or Project About What They Have Read*

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	5 (0.9)	16 (1.3)	23 (1.9)	33 (2.0)	72 (2.1)	51 (1.8)
Nation	3 (0.8)	4 (1.0)	19 (2.6)	30 (3.0)	78 (2.7)	66 (2.9)
<b>Some ed after HS</b>						
Guam	4 (1.9)	12 (2.6)	25 (4.1)	40 (4.4)	71 (4.4)	48 (4.8)
Nation	4 (1.1)	5 (1.6)	24 (3.8)	25 (4.1)	72 (3.8)	70 (3.9)
<b>HS graduate</b>						
Guam	6 (1.3)	16 (2.5)	29 (3.7)	31 (3.3)	65 (3.9)	53 (3.2)
Nation	4 (1.5)	6 (1.6)	20 (2.8)	25 (3.1)	76 (3.1)	69 (3.1)
<b>HS non-graduate</b>						
Guam	6 (1.9)	16 (4.2)	27 (4.5)	32 (5.9)	67 (4.3)	52 (6.2)
Nation	4 (1.5)	4 (1.7)	15 (4.3)	29 (4.7)	81 (4.4)	67 (4.6)
<b>I don't know</b>						
Guam	6 (0.9)	15 (1.1)	23 (1.2)	31 (1.7)	71 (1.5)	54 (1.6)
Nation	3 (0.9)	5 (1.1)	23 (2.9)	27 (2.4)	74 (3.1)	69 (2.3)
<b>GENDER</b>						
<b>Male</b>						
Guam	5 (0.7)	15 (1.1)	24 (1.4)	31 (1.9)	71 (1.6)	54 (1.7)
Nation	3 (0.9)	5 (1.1)	21 (2.8)	28 (2.5)	75 (2.9)	67 (2.4)
<b>Female</b>						
Guam	6 (0.8)	15 (0.9)	24 (1.3)	33 (1.4)	70 (1.4)	51 (1.2)
Nation	3 (0.8)	5 (1.2)	20 (2.2)	28 (2.6)	76 (2.3)	68 (2.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	15 (0.7)	== (==)	32 (1.1)	== (==)	52 (1.0)
Nation	== (==)	185 (3.3)	== (==)	184 (1.9)	== (==)	177 (2.0)
<b>Non-Public</b>						
Guam	== (==)	0 (0.0)	== (==)	26 (0.6)	== (==)	74 (0.6)
Nation	== (==)	2 (1.6)	== (==)	27 (4.1)	== (==)	71 (4.3)
<b>Combined</b>						
Guam	== (==)	13 (0.6)	== (==)	31 (1.0)	== (==)	55 (0.9)
Nation	== (==)	4 (1.0)	== (==)	28 (2.2)	== (==)	68 (2.1)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D6.4F

*Public School Students' Reports on Doing a Group  
 Activity or Project About What They Have Read*

1994 Trial State Assessment

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>TOTAL</b>			
Guam	22 (0.8)	31 (0.9)	47 (1.2)
Nation	173 (2.6)	181 (1.9)	189 (1.6)
	15 (0.6)	24 (0.7)	61 (0.9)
	198 (1.9)	209 (1.4)	220 (1.2)
<b>RACE/ ETHNICITY</b>			
<b>White</b>			
Guam	16 (2.4)	26 (2.9)	58 (3.6)
Nation	12 (0.6)	23 (0.8)	65 (0.9)
	210 (2.7)	220 (1.7)	227 (1.4)
<b>Black</b>			
Guam	20 (5.2)	28 (4.5)	51 (5.0)
Nation	25 (1.3)	27 (1.5)	47 (1.7)
	181 (2.9)	187 (3.0)	193 (2.3)
<b>Hispanic</b>			
Guam	25 (2.1)	30 (2.0)	45 (2.3)
Nation	166 (4.8)	173 (5.0)	178 (3.2)
	19 (1.8)	30 (1.8)	51 (2.3)
	179 (4.9)	186 (3.8)	197 (3.0)
<b>Asian</b>			
Guam	14 (4.8)	32 (6.1)	54 (6.2)
Nation	6 (1.9)	28 (6.0)	67 (6.9)
	*** (***)	*** (***)	240 (6.4)
<b>Pacific Islander</b>			
Guam	23 (1.1)	32 (1.4)	45 (1.4)
Nation	176 (2.8)	184 (2.3)	189 (1.9)
	16 (4.7)	20 (5.6)	64 (7.9)
	*** (***)	*** (***)	*** (***)

(continued on next page)





1994 Trial State Assessment

TABLE D6.4F (continued)

*Public School Students' Reports on Doing a Group Activity or Project About What They Have Read*

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b><u>PARENTS' EDUCATION</u></b>			
<b>College graduate</b>			
Guam	21 (1.5)	33 (1.9)	46 (1.7)
Nation	181 (3.9)	184 (2.7)	191 (2.7)
	14 (0.8)	24 (1.3)	62 (1.2)
	207 (2.4)	219 (2.3)	229 (1.7)
<b>Some ed after HS</b>			
Guam	16 (3.5)	33 (4.1)	51 (4.6)
Nation	*** (***)	*** (***)	198 (5.6)
	14 (1.7)	27 (2.3)	58 (2.7)
	214 (5.1)	220 (3.4)	227 (2.9)
<b>HS graduate</b>			
Guam	27 (2.3)	26 (2.9)	48 (3.1)
Nation	166 (4.8)	176 (4.9)	184 (4.6)
	14 (1.3)	27 (1.6)	59 (1.8)
	194 (5.5)	206 (2.9)	213 (2.3)
<b>HS non-graduate</b>			
Guam	28 (4.7)	33 (5.0)	38 (5.1)
Nation	*** (***)	*** (***)	*** (***)
	22 (3.2)	26 (3.1)	52 (3.3)
	*** (***)	181 (4.9)	194 (5.4)
<b>I don't know</b>			
Guam	23 (1.3)	30 (1.7)	48 (1.7)
Nation	171 (3.6)	180 (2.9)	190 (2.0)
	15 (1.0)	23 (1.1)	62 (1.5)
	189 (3.7)	201 (2.0)	213 (1.4)
<b><u>GENDER</u></b>			
<b>Male</b>			
Guam	23 (1.2)	31 (1.4)	46 (1.5)
Nation	167 (3.0)	174 (2.7)	179 (2.2)
	14 (0.7)	24 (0.9)	62 (1.0)
	193 (3.0)	203 (2.0)	215 (1.4)
<b>Female</b>			
Guam	22 (1.4)	30 (1.3)	48 (1.8)
Nation	180 (3.3)	189 (2.8)	199 (2.1)
	15 (0.8)	25 (0.9)	60 (1.2)
	203 (2.3)	216 (1.7)	225 (1.4)
<b><u>SCHOOL TYPE</u></b>			
<b>Public</b>			
Guam	22 (0.8)	31 (0.9)	47 (1.2)
Nation	173 (2.6)	181 (1.9)	189 (1.6)
	15 (0.6)	24 (0.7)	61 (0.9)
	198 (1.9)	209 (1.4)	220 (1.2)
<b>Non-Public</b>			
Guam	7 (1.9)	22 (2.6)	70 (2.7)
Nation	*** (***)	200 (3.7)	221 (3.6)
	8 (0.9)	20 (1.3)	72 (1.7)
	219 (4.7)	224 (4.3)	235 (2.3)
<b>Combined</b>			
Guam	20 (0.8)	29 (0.9)	50 (1.1)
Nation	*** (***)	183 (1.7)	196 (1.5)
	14 (0.5)	24 (0.7)	62 (0.8)
	199 (1.7)	211 (1.3)	222 (1.1)

The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.5A**

*Public School Teachers' Reports on Asking Students to Read Aloud*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	50 (0.9)	65 (1.0)	40 (1.1)	33 (1.0)	10 (0.7)	3 (0.3)
Nation	180 (2.0)	180 (1.6)	183 (2.1)	183 (1.9)	*** (***)	*** (***)
	47 (2.9)	57 (2.4)	45 (2.5)	38 (2.3)	8 (1.7)	5 (1.1)
	212 (1.6)	210 (1.5)	220 (1.8)	217 (1.6)	222 (4.1)	228 (5.0)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	46 (3.0)	63 (4.4)	49 (3.1)	37 (4.4)	5 (1.2)	0 (0.0)
Nation	195 (4.3)	186 (6.0)	192 (4.9)	*** (***)	*** (***)	*** (***)
	44 (3.3)	55 (2.7)	48 (2.9)	39 (2.5)	8 (2.0)	5 (1.3)
	220 (2.0)	221 (1.8)	225 (2.1)	224 (1.6)	228 (4.0)	234 (4.4)
<b>Black</b>						
Guam	52 (7.0)	72 (6.5)	37 (5.8)	28 (6.5)	11 (4.5)	0 (0.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	58 (4.3)	63 (4.2)	35 (4.0)	35 (4.1)	6 (2.3)	3 (1.2)
	193 (2.3)	182 (2.6)	195 (3.1)	192 (2.2)	*** (***)	*** (***)
<b>Hispanic</b>						
Guam	45 (2.6)	69 (2.6)	43 (2.3)	28 (2.5)	12 (1.7)	3 (0.8)
Nation	163 (5.2)	170 (3.4)	162 (4.4)	171 (5.5)	*** (***)	*** (***)
	60 (3.6)	59 (4.0)	34 (3.0)	35 (3.7)	6 (2.2)	6 (1.6)
	198 (2.5)	187 (2.8)	206 (3.1)	194 (2.7)	*** (***)	*** (***)
<b>Asian</b>						
Guam	--- (-)	59 (6.4)	--- (-)	39 (6.1)	--- (-)	2 (1.9)
Nation	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)
	--- (-)	54 (7.3)	--- (-)	41 (6.2)	--- (-)	4 (2.6)
	--- (-)	226 (8.6)	--- (-)	239 (6.0)	--- (-)	*** (***)
<b>Pacific Islander</b>						
Guam	--- (-)	64 (1.4)	--- (-)	33 (1.4)	--- (-)	3 (0.3)
Nation	--- (-)	183 (1.9)	--- (-)	186 (2.3)	--- (-)	*** (***)
	--- (-)	56 (5.8)	--- (-)	38 (5.6)	--- (-)	6 (2.4)
	--- (-)	*** (***)	--- (-)	*** (***)	--- (-)	*** (***)

(continued on next page)





TABLE D6.5A (continued)

## Public School Teachers' Reports on Asking Students to Read Aloud

1994 Trial State Assessment

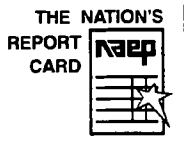
	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	51 (2.2)	65 (1.9)	40 (2.2)	32 (1.9)	9 (1.1)	3 (1.1)
Nation	181 (3.2)	182 (2.5)	184 (3.1)	188 (3.6)	*** (***)	*** (***)
	46 (3.3)	53 (2.7)	45 (2.6)	41 (2.6)	9 (2.2)	6 (1.5)
	218 (2.1)	220 (2.0)	229 (2.5)	225 (1.9)	230 (5.8)	238 (5.5)
<b>Some ed after HS</b>						
Guam	51 (4.2)	66 (3.7)	43 (4.3)	32 (3.7)	6 (2.0)	2 (1.8)
Nation	*** (***)	192 (6.1)	*** (***)	*** (***)	*** (***)	*** (***)
	45 (3.8)	56 (3.6)	46 (3.4)	40 (3.4)	8 (2.8)	4 (1.1)
	218 (3.6)	220 (3.0)	225 (3.6)	224 (2.9)	*** (***)	*** (***)
<b>HS graduate</b>						
Guam	47 (3.1)	57 (2.8)	40 (3.5)	38 (2.8)	13 (3.5)	5 (1.1)
Nation	178 (4.4)	176 (3.6)	183 (4.3)	176 (5.2)	*** (***)	*** (***)
	51 (3.9)	62 (3.0)	42 (3.6)	34 (3.1)	7 (2.2)	4 (1.1)
	210 (2.6)	205 (2.0)	214 (3.2)	211 (4.0)	*** (***)	*** (***)
<b>HS non-graduate</b>						
Guam	49 (4.5)	74 (4.2)	40 (4.4)	23 (3.7)	10 (3.7)	3 (2.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	46 (6.1)	57 (4.0)	50 (5.6)	37 (3.7)	4 (2.2)	6 (2.2)
	193 (3.9)	187 (4.9)	204 (4.7)	189 (7.3)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	50 (1.5)	66 (1.7)	40 (1.5)	33 (1.8)	10 (0.9)	2 (0.3)
Nation	180 (2.7)	180 (2.4)	182 (3.2)	181 (3.0)	*** (***)	*** (***)
	48 (3.4)	59 (2.7)	44 (3.0)	36 (2.6)	7 (1.7)	4 (1.0)
	207 (2.2)	202 (1.8)	213 (1.8)	209 (2.1)	216 (6.0)	217 (5.2)
<b>GENDER</b>						
<b>Male</b>						
Guam	51 (1.6)	64 (1.7)	40 (1.7)	33 (1.7)	9 (0.8)	3 (0.3)
Nation	173 (2.6)	171 (2.1)	176 (2.6)	173 (2.6)	*** (***)	*** (***)
	48 (3.1)	57 (2.4)	45 (2.6)	38 (2.3)	7 (1.8)	5 (1.0)
	209 (2.0)	204 (1.6)	215 (2.1)	212 (2.1)	219 (4.1)	224 (4.9)
<b>Female</b>						
Guam	49 (1.5)	66 (1.4)	40 (1.5)	32 (1.4)	11 (0.9)	2 (0.4)
Nation	189 (2.1)	188 (2.5)	190 (2.8)	195 (2.4)	*** (***)	*** (***)
	47 (3.0)	57 (2.6)	45 (2.6)	38 (2.4)	8 (1.8)	5 (1.2)
	215 (1.7)	216 (1.8)	224 (2.0)	221 (1.9)	225 (5.3)	231 (5.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	=== (==)	85 (1.0)	=== (==)	33 (1.0)	=== (==)	3 (0.3)
Nation	=== (==)	180 (1.6)	=== (==)	183 (1.9)	=== (==)	*** (***)
	=== (==)	57 (2.4)	=== (==)	38 (2.3)	=== (==)	5 (1.1)
	=== (==)	210 (1.5)	=== (==)	217 (1.6)	=== (==)	228 (5.0)
<b>Non-Public</b>						
Guam	=== (==)	53 (2.0)	=== (==)	47 (2.0)	=== (==)	0 (0.0)
Nation	=== (==)	*** (***)	=== (==)	*** (***)	=== (==)	*** (***)
	=== (==)	63 (5.8)	=== (==)	30 (5.1)	=== (==)	7 (2.3)
	=== (==)	229 (3.3)	=== (==)	235 (4.2)	=== (==)	228 (4.8)
<b>Combined</b>						
Guam	=== (==)	63 (0.9)	=== (==)	34 (0.9)	=== (==)	2 (0.2)
Nation	=== (==)	*** (***)	=== (==)	*** (***)	=== (==)	*** (***)
	=== (==)	57 (2.2)	=== (==)	37 (2.2)	=== (==)	5 (1.0)
	=== (==)	212 (1.4)	=== (==)	218 (1.6)	=== (==)	228 (4.4)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



1994 Trial State Assessment

**TABLE D6.5B**

*Public School Students' Reports on Reading Aloud*

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>TOTAL</b>			
Guam	43 (1.1)	30 (1.1)	27 (0.9)
Nation	187 (1.4)	185 (1.8)	175 (2.5)
	45 (1.2)	30 (0.8)	25 (1.0)
	215 (1.3)	218 (1.4)	209 (1.9)
<b>RACE/ ETHNICITY</b>			
<b>White</b>			
Guam	39 (3.6)	29 (3.6)	32 (3.4)
Nation	200 (6.6)	*** (***)	183 (7.1)
	44 (1.4)	31 (0.9)	25 (1.3)
	225 (1.6)	226 (1.6)	219 (2.1)
<b>Black</b>			
Guam	41 (6.5)	29 (6.4)	29 (6.3)
Nation	*** (***)	*** (***)	*** (***)
	53 (2.3)	25 (1.9)	22 (1.6)
	192 (2.3)	187 (2.8)	181 (3.4)
<b>Hispanic</b>			
Guam	49 (2.4)	27 (2.6)	24 (2.2)
Nation	179 (3.5)	172 (4.7)	163 (5.6)
	43 (1.7)	27 (1.3)	30 (1.5)
	192 (3.1)	193 (4.5)	183 (3.7)
<b>Asian</b>			
Guam	36 (6.7)	41 (7.9)	22 (6.4)
Nation	*** (***)	*** (***)	*** (***)
	36 (4.2)	35 (3.9)	28 (5.4)
	*** (***)	*** (***)	*** (***)
<b>Pacific Islander</b>			
Guam	42 (1.3)	31 (1.2)	27 (1.2)
Nation	188 (1.7)	187 (1.9)	177 (2.6)
	43 (7.5)	27 (7.0)	30 (6.1)
	*** (***)	*** (***)	*** (***)

(continued on next page)





TABLE D6.5B (continued)

## Public School Students' Reports on Reading Aloud

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>PARENTS' EDUCATION</b>			
<b>College graduate</b>			
Guam	45 (2.0)	31 (2.0)	24 (1.5)
Nation	194 (2.1)	185 (3.0)	174 (4.7)
	46 (1.5)	30 (1.0)	24 (1.3)
	224 (2.1)	228 (1.7)	219 (2.6)
<b>Some ed after HS</b>			
Guam	47 (3.9)	27 (4.2)	26 (3.8)
Nation	45 (2.7)	30 (2.2)	26 (2.3)
	223 (2.7)	229 (2.9)	217 (4.3)
<b>HS graduate</b>			
Guam	42 (2.5)	33 (3.2)	25 (2.3)
Nation	177 (3.8)	180 (5.5)	176 (6.0)
	48 (1.9)	28 (1.7)	23 (1.8)
	211 (2.6)	210 (2.9)	203 (4.4)
<b>HS non-graduate</b>			
Guam	40 (4.2)	35 (5.1)	25 (4.0)
Nation	42 (3.8)	29 (3.8)	28 (4.0)
	193 (4.4)	195 (6.3)	183 (5.8)
<b>I don't know</b>			
Guam	41 (1.7)	29 (1.8)	31 (1.6)
Nation	184 (2.4)	187 (3.2)	179 (2.9)
	43 (1.4)	30 (1.1)	27 (1.2)
	207 (1.4)	209 (2.6)	202 (2.3)
<b>GENDER</b>			
<b>Male</b>			
Guam	39 (1.7)	32 (1.6)	29 (1.3)
Nation	179 (2.3)	177 (2.3)	168 (3.1)
	42 (1.3)	29 (0.9)	29 (1.3)
	211 (1.7)	212 (1.9)	205 (2.1)
<b>Female</b>			
Guam	47 (1.4)	28 (1.4)	25 (1.6)
Nation	193 (1.9)	195 (2.8)	186 (3.6)
	48 (1.5)	30 (1.1)	21 (1.1)
	219 (1.4)	224 (1.8)	215 (2.6)
<b>SCHOOL TYPE</b>			
<b>Public</b>			
Guam	43 (1.1)	30 (1.1)	27 (0.9)
Nation	187 (1.4)	185 (1.8)	176 (2.5)
	45 (1.2)	30 (0.8)	25 (1.0)
	215 (1.3)	218 (1.4)	209 (1.9)
<b>Non-Public</b>			
Guam	56 (2.6)	24 (1.8)	20 (2.5)
Nation	214 (2.8)	212 (5.9)	217 (8.9)
	52 (2.3)	28 (1.5)	20 (1.6)
	232 (3.0)	235 (3.4)	228 (2.7)
<b>Combined</b>			
Guam	45 (1.0)	29 (1.0)	26 (0.9)
Nation	192 (1.2)	189 (1.7)	181 (2.5)
	46 (1.1)	29 (0.7)	25 (0.9)
	217 (1.2)	219 (1.3)	211 (1.8)

The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D6.5C

*Public School Teachers' Reports on Asking Students  
 to Read Silently*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	87 (1.2)	89 (1.1)	31 (1.2)	30 (1.1)	2 (0.5)	1 (0.2)
Nation	182 (1.9)	180 (1.5)	183 (1.9)	180 (2.4)	*** (***)	*** (***)
	75 (2.3)	74 (2.3)	23 (2.1)	23 (2.3)	2 (0.5)	3 (0.7)
	218 (1.8)	214 (1.3)	212 (2.2)	210 (2.5)	207 (5.5)	209 (7.9)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	89 (3.3)	83 (3.9)	27 (2.7)	35 (4.1)	4 (1.8)	1 (1.0)
Nation	196 (3.6)	184 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)
	76 (2.6)	75 (3.0)	23 (2.5)	23 (3.0)	1 (0.5)	2 (0.9)
	224 (1.9)	229 (1.4)	219 (2.3)	221 (3.1)	*** (***)	225 (6.4)
<b>Black</b>						
Guam	63 (6.1)	61 (7.2)	33 (5.8)	39 (7.2)	4 (3.0)	0 (0.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	72 (4.7)	71 (3.3)	27 (4.7)	25 (3.8)	2 (0.9)	4 (1.5)
	194 (2.0)	187 (2.2)	193 (3.8)	188 (2.6)	*** (***)	*** (***)
<b>Hispanic</b>						
Guam	67 (2.8)	59 (3.1)	29 (2.7)	38 (2.8)	4 (0.9)	3 (0.8)
Nation	165 (4.4)	172 (3.4)	163 (4.9)	165 (5.0)	*** (***)	*** (***)
	89 (5.7)	89 (4.0)	24 (5.3)	27 (4.3)	7 (2.4)	3 (2.0)
	203 (2.5)	191 (2.9)	200 (4.2)	185 (4.4)	*** (***)	*** (***)
<b>Asian</b>						
Guam	— (—)	72 (5.6)	— (—)	28 (5.6)	— (—)	0 (0.0)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	83 (5.2)	— (—)	17 (5.2)	— (—)	0 (0.0)
	— (—)	232 (5.5)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	72 (1.7)	— (—)	27 (1.6)	— (—)	1 (0.2)
Nation	— (—)	182 (1.7)	— (—)	185 (2.5)	— (—)	*** (***)
	— (—)	82 (5.2)	— (—)	18 (5.2)	— (—)	0 (0.0)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.5C (continued)

Public School Teachers' Reports on Asking Students to Read Silently

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	65 (1.9)	68 (1.6)	33 (2.0)	32 (1.6)	2 (0.7)	0 (0.2)
Nation	183 (3.2)	184 (2.6)	181 (3.4)	183 (3.5)	*** (***)	*** (***)
	78 (2.4)	76 (2.5)	20 (2.2)	21 (2.4)	2 (0.7)	2 (0.7)
	227 (2.1)	223 (1.5)	216 (3.9)	221 (2.8)	*** (***)	*** (***)
<b>Some ed after HS</b>						
Guam	66 (4.4)	69 (4.4)	32 (4.3)	31 (4.4)	3 (1.5)	0 (0.0)
Nation	194 (5.9)	185 (6.2)	*** (***)	*** (***)	*** (***)	*** (***)
	78 (3.6)	73 (3.6)	19 (3.1)	24 (3.6)	2 (1.3)	3 (0.9)
	221 (3.0)	222 (2.7)	224 (4.4)	221 (3.2)	*** (***)	*** (***)
<b>HS graduate</b>						
Guam	64 (3.9)	69 (2.7)	33 (3.8)	29 (2.9)	2 (1.0)	2 (0.7)
Nation	183 (4.0)	175 (4.4)	181 (5.7)	170 (5.5)	*** (***)	*** (***)
	72 (4.3)	71 (3.1)	26 (4.1)	28 (3.1)	2 (1.4)	2 (0.6)
	212 (2.8)	208 (2.1)	214 (3.6)	205 (4.7)	*** (***)	*** (***)
<b>HS non-graduate</b>						
Guam	64 (6.2)	70 (5.6)	32 (5.9)	30 (5.6)	3 (2.5)	0 (0.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	68 (4.6)	65 (4.4)	29 (4.7)	30 (4.3)	4 (1.6)	6 (1.9)
	199 (4.1)	190 (5.4)	*** (***)	188 (7.8)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	69 (1.8)	69 (1.7)	28 (1.8)	30 (1.7)	3 (0.8)	2 (0.3)
Nation	181 (2.3)	181 (2.1)	182 (3.2)	177 (3.4)	*** (***)	*** (***)
	73 (2.6)	74 (2.5)	26 (2.6)	23 (2.5)	1 (0.3)	3 (1.0)
	211 (1.9)	206 (1.6)	209 (2.5)	203 (3.1)	*** (***)	201 (10.5)!
<b>GENDER</b>						
<b>Male</b>						
Guam	66 (1.6)	69 (1.6)	31 (1.6)	30 (1.6)	3 (0.6)	1 (0.3)
Nation	176 (2.4)	172 (1.6)	174 (2.5)	170 (3.6)	*** (***)	*** (***)
	76 (2.4)	74 (2.5)	22 (2.2)	23 (2.4)	2 (0.5)	3 (0.7)
	214 (2.0)	209 (1.3)	209 (2.8)	204 (3.0)	*** (***)	206 (10.0)!
<b>Female</b>						
Guam	68 (1.4)	68 (1.2)	30 (1.4)	31 (1.2)	2 (0.5)	1 (0.2)
Nation	189 (2.1)	189 (2.3)	182 (2.5)	189 (2.8)	*** (***)	*** (***)
	73 (2.4)	74 (2.3)	25 (2.3)	24 (2.4)	2 (0.6)	2 (0.7)
	222 (1.9)	220 (1.5)	215 (2.4)	217 (2.4)	*** (***)	213 (6.4)!
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	69 (1.1)	== (==)	30 (1.1)	== (==)	1 (0.2)
Nation	== (==)	180 (1.5)	== (==)	180 (2.4)	== (==)	*** (***)
	== (==)	74 (2.3)	== (==)	23 (2.3)	== (==)	3 (0.7)
	== (==)	214 (1.3)	== (==)	210 (2.5)	== (==)	209 (7.9)!
<b>Non-Public</b>						
Guam	== (==)	28 (0.9)	== (==)	72 (0.9)	== (==)	0 (0.0)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	68 (5.0)	== (==)	28 (5.2)	== (==)	3 (2.1)
	== (==)	232 (3.0)	== (==)	227 (4.0)!	== (==)	*** (***)
<b>Combined</b>						
Guam	== (==)	63 (0.9)	== (==)	36 (0.9)	== (==)	1 (0.2)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	73 (2.1)	== (==)	24 (2.2)	== (==)	3 (0.7)
	== (==)	216 (1.1)	== (==)	213 (2.3)	== (==)	*** (***)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.5D**

*Public School Students' Reports on Reading Silently*

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	57 (1.2)	59 (1.0)	23 (0.8)	22 (0.9)	19 (0.9)	19 (0.8)
Nation	192 (1.3)	191 (1.4)	184 (2.7)	180 (2.2)	157 (2.5)	164 (2.5)
	67 (1.1)	64 (1.1)	22 (0.9)	23 (0.9)	11 (0.6)	13 (0.5)
	221 (1.3)	220 (1.3)	213 (1.5)	213 (1.6)	193 (2.1)	188 (1.9)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	60 (3.4)	55 (3.1)	23 (2.6)	26 (3.1)	17 (2.0)	19 (2.6)
Nation	200 (3.1)	202 (5.8)	*** (***)	*** (***)	*** (***)	*** (***)
	69 (1.4)	66 (1.2)	22 (1.1)	22 (1.1)	10 (0.7)	12 (0.6)
	227 (1.5)	228 (1.3)	221 (2.0)	222 (1.8)	203 (2.4)	199 (2.5)
<b>Black</b>						
Guam	54 (5.6)	51 (5.8)	26 (6.0)	26 (4.5)	20 (3.7)	22 (5.3)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	60 (2.2)	59 (2.1)	24 (1.9)	24 (1.5)	16 (1.5)	17 (1.3)
	199 (1.9)	195 (1.9)	191 (3.4)	188 (3.5)	176 (3.6)	169 (3.5)
<b>Hispanic</b>						
Guam	49 (2.8)	55 (2.5)	24 (3.0)	21 (1.4)	27 (2.2)	24 (2.3)
Nation	181 (3.3)	181 (2.9)	166 (6.1)	170 (4.3)	141 (4.9)	159 (6.1)
	60 (2.0)	58 (2.4)	24 (1.6)	24 (2.2)	16 (1.3)	18 (1.4)
	208 (2.0)	198 (3.8)	201 (3.3)	193 (4.3)	179 (4.9)	163 (4.4)
<b>Asian</b>						
Guam	— (—)	60 (5.7)	— (—)	30 (4.3)	— (—)	10 (4.0)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	68 (4.3)	— (—)	22 (3.2)	— (—)	10 (2.4)
	— (—)	234 (6.9)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	61 (1.3)	— (—)	22 (1.2)	— (—)	17 (0.8)
Nation	— (—)	192 (1.4)	— (—)	180 (3.1)	— (—)	164 (3.0)
	— (—)	67 (4.5)	— (—)	19 (4.4)	— (—)	14 (4.3)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.5D (continued)

Public School Students' Reports on Reading Silently

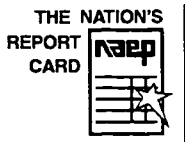
1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	57 (2.3)	62 (1.8)	24 (1.8)	21 (1.3)	19 (1.4)	17 (1.4)
Nation	193 (2.2)	192 (2.3)	183 (4.5)	186 (4.1)	159 (4.2)	163 (4.1)
	68 (1.7)	66 (1.6)	23 (1.5)	22 (1.3)	9 (0.9)	12 (0.8)
	229 (1.9)	229 (1.6)	219 (2.3)	221 (2.3)	201 (3.3)	196 (2.7)
<b>Some ed after HS</b>						
Guam	55 (4.2)	63 (4.1)	29 (3.7)	24 (3.9)	16 (3.4)	13 (3.3)
Nation	201 (6.8)	200 (5.2)	*** (***)	*** (***)	*** (***)	*** (***)
	72 (2.2)	63 (2.9)	20 (2.0)	27 (2.9)	8 (1.5)	10 (1.7)
	226 (2.2)	227 (2.4)	220 (5.0)	223 (3.9)	*** (***)	*** (***)
<b>HS graduate</b>						
Guam	62 (3.1)	54 (3.3)	18 (2.6)	27 (2.4)	20 (2.5)	19 (2.3)
Nation	190 (3.4)	187 (3.9)	*** (***)	176 (5.2)	*** (***)	*** (***)
	64 (2.4)	60 (2.1)	23 (2.1)	27 (2.1)	12 (1.5)	12 (1.4)
	217 (2.2)	214 (2.1)	206 (3.8)	206 (3.3)	193 (3.6)	190 (4.5)
<b>HS non-graduate</b>						
Guam	54 (5.4)	51 (5.4)	25 (4.0)	30 (5.8)	20 (5.7)	19 (4.2)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	54 (4.4)	62 (3.0)	28 (3.0)	16 (2.8)	17 (3.3)	21 (2.8)
	205 (2.6)	198 (4.1)	204 (5.2)	*** (***)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	57 (1.7)	58 (1.7)	24 (1.4)	21 (1.4)	20 (1.6)	21 (1.7)
Nation	192 (2.0)	190 (2.0)	182 (3.2)	179 (3.7)	156 (3.7)	170 (4.0)
	66 (1.6)	63 (1.4)	21 (1.2)	21 (1.2)	13 (1.0)	15 (1.0)
	215 (1.3)	213 (1.7)	208 (2.5)	207 (2.9)	190 (2.8)	179 (3.2)
<b>GENDER</b>						
<b>Male</b>						
Guam	52 (1.8)	54 (1.5)	24 (1.2)	24 (1.2)	23 (1.5)	22 (1.1)
Nation	187 (2.1)	183 (1.7)	177 (2.5)	172 (3.5)	153 (3.3)	156 (3.2)
	65 (1.3)	61 (1.3)	22 (1.0)	23 (1.1)	13 (0.8)	16 (0.6) >
	218 (1.6)	217 (1.6)	209 (2.2)	208 (2.1)	189 (2.5)	184 (2.3)
<b>Female</b>						
Guam	63 (1.6)	63 (1.5)	22 (1.2)	21 (1.4)	15 (1.4)	15 (1.1)
Nation	197 (1.5)	197 (2.1)	191 (3.9)	189 (3.0)	164 (3.2)	175 (3.3)
	68 (1.4)	68 (1.2)	22 (1.3)	22 (1.1)	10 (0.7)	10 (0.7)
	224 (1.2)	224 (1.4)	217 (2.1)	219 (2.0)	199 (3.3)	194 (3.3)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	59 (1.0)	== (==)	22 (0.9)	== (==)	19 (0.8)
Nation	== (==)	191 (1.4)	== (==)	180 (2.2)	== (==)	164 (2.5)
	== (==)	64 (1.1)	== (==)	23 (0.9)	== (==)	13 (0.5)
	== (==)	220 (1.3)	== (==)	213 (1.6)	== (==)	188 (1.9)
<b>Non-Public</b>						
Guam	== (==)	63 (2.2)	== (==)	22 (2.0)	== (==)	15 (1.5)
Nation	== (==)	219 (3.0)	== (==)	213 (4.3)	== (==)	*** (***)
	== (==)	62 (2.0)	== (==)	28 (1.5)	== (==)	11 (1.0)
	== (==)	232 (2.8)	== (==)	234 (2.9)	== (==)	222 (4.9)
<b>Combined</b>						
Guam	== (==)	59 (0.9)	== (==)	22 (0.8)	== (==)	18 (0.7)
Nation	== (==)	195 (1.3)	== (==)	185 (2.0)	== (==)	*** (***)
	== (==)	64 (1.0)	== (==)	23 (0.9)	== (==)	13 (0.4)
	== (==)	222 (1.2)	== (==)	216 (1.5)	== (==)	191 (1.8)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



1994 Trial State Assessment

**TABLE D6.5E**

*Public School Teachers' Reports on Giving Students Time to Read Books They Have Chosen Themselves*

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>TOTAL</b>			
Guam	73 (1.2)	26 (1.2)	1 (0.2)
Nation	179 (1.6)	184 (2.3)	6 (1.2)
	215 (1.4)	210 (2.5)	207 (4.9)
<b>RACE/ ETHNICITY</b>			
<b>White</b>			
Guam	65 (4.3)	35 (4.3)	0 (0.0)
Nation	182 (6.7)	24 (3.0)	5 (1.4)
	223 (1.5)	222 (2.8)	221 (3.9)
<b>Black</b>			
Guam	57 (8.1)	43 (8.1)	0 (0.0)
Nation	59 (4.2)	31 (3.0)	10 (2.4)
	189 (2.6)	181 (2.7)	190 (5.4)
<b>Hispanic</b>			
Guam	71 (2.6)	28 (2.5)	0 (0.3)
Nation	169 (2.9)	173 (4.9)	7 (1.6)
	68 (3.5)	189 (3.4)	176 (7.8)
<b>Asian</b>			
Guam	80 (6.3)	19 (5.7)	2 (1.7)
Nation	83 (4.5)	13 (4.4)	4 (2.1)
	232 (7.0)	189 (3.4)	176 (7.8)
<b>Pacific Islander</b>			
Guam	75 (1.6)	24 (1.6)	2 (0.3)
Nation	182 (1.7)	187 (2.8)	4 (2.9)
	75 (8.3)	21 (6.9)	4 (2.9)

(continued on next page)





TABLE D6.5E (continued)

*Public School Teachers' Reports on Giving Students  
Time to Read Books They Have Chosen Themselves*

1994 Trial State Assessment

	Almost Every Day	At Least Once a Week	Less than Weekly
	1994	1994	1994
<b>Percentage and Proficiency</b>			
<b>PARENTS' EDUCATION</b>			
<b>College graduate</b>			
Guam	73 (1.8)	26 (1.7)	2 (0.5)
	183 (2.5)	186 (3.8)	*** (***)
Nation	70 (2.8)	23 (2.3)	7 (1.3)
	225 (1.5)	219 (3.0)	215 (7.1)!
<b>Some ed after HS</b>			
Guam	66 (4.2)	34 (4.2)	0 (0.0)
	191 (6.0)	*** (***)	*** (***)
Nation	68 (3.9)	26 (3.4)	6 (1.7)
	222 (2.8)	223 (3.8)	*** (***)
<b>HS graduate</b>			
Guam	74 (2.2)	24 (2.3)	2 (0.5)
	169 (3.8)	*** (***)	*** (***)
Nation	64 (2.9)	30 (3.2)	7 (2.0)
	209 (2.4)	204 (4.0)	*** (***)
<b>HS non-graduate</b>			
Guam	75 (5.6)	24 (5.2)	2 (1.4)
	*** (***)	*** (***)	*** (***)
Nation	65 (4.6)	28 (4.2)	7 (2.6)
	192 (4.0)	179 (8.1)	*** (***)
<b>I don't know</b>			
Guam	74 (1.7)	25 (1.7)	1 (0.5)
	180 (1.9)	181 (3.6)	*** (***)
Nation	71 (2.5)	24 (2.5)	5 (1.1)
	207 (1.8)	203 (3.2)	197 (5.6)!
<b>GENDER</b>			
<b>Male</b>			
Guam	73 (1.8)	26 (1.8)	1 (0.3)
	170 (1.7)	174 (3.1)	*** (***)
Nation	70 (2.4)	24 (2.3)	6 (1.1)
	210 (1.4)	203 (3.1)	198 (5.4)
<b>Female</b>			
Guam	73 (1.4)	26 (1.4)	1 (0.2)
	188 (2.3)	194 (2.9)	*** (***)
Nation	68 (2.7)	26 (2.6)	6 (1.3)
	221 (1.7)	216 (2.1)	216 (5.3)!
<b>SCHOOL TYPE</b>			
<b>Public</b>			
Guam	73 (1.2)	26 (1.2)	1 (0.2)
	179 (1.6)	184 (2.3)	*** (***)
Nation	69 (2.5)	25 (2.4)	6 (1.2)
	215 (1.4)	210 (2.5)	207 (4.9)
<b>Non-Public</b>			
Guam	65 (0.8)	21 (2.3)	14 (2.5)
	*** (***)	*** (***)	*** (***)
Nation	64 (4.9)	27 (4.5)	9 (3.6)
	233 (3.2)	230 (3.6)	213 (5.6)!
<b>Combined</b>			
Guam	72 (1.0)	25 (1.1)	3 (0.4)
	*** (***)	*** (***)	*** (***)
Nation	69 (2.2)	25 (2.1)	6 (1.0)
	217 (1.2)	212 (2.1)	208 (4.1)

The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.5F**

*Public School Students' Reports on Reading Books  
They Have Chosen Themselves*

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	42 (1.0)	46 (1.1) >	32 (1.2)	31 (0.9)	26 (1.0)	23 (0.9) <
Nation	185 (1.9)	188 (1.7)	190 (1.7)	185 (1.8)	171 (2.7)	173 (2.1)
	55 (1.5)	53 (1.1)	27 (1.1)	29 (0.9)	18 (0.8)	18 (0.7)
	222 (1.3)	220 (1.1)	214 (1.7)	212 (1.6)	202 (1.4)	204 (2.3)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	40 (3.2)	48 (4.3)	33 (3.3)	33 (3.4)	27 (3.1)	20 (2.7)
Nation	195 (4.8)	200 (5.6)	201 (4.1)	192 (5.9)	186 (6.0)	*** (***)
	57 (1.9)	54 (1.4)	26 (1.4)	29 (1.1)	17 (1.1)	17 (0.9)
	229 (1.5)	229 (1.3)	221 (2.3)	220 (1.8)	211 (1.8)	215 (2.6)
<b>Black</b>						
Guam	43 (6.1)	42 (5.0)	28 (5.3)	34 (6.6)	28 (5.4)	24 (4.9)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	49 (2.1)	50 (1.8)	30 (1.9)	30 (1.5)	21 (1.6)	20 (1.6)
	198 (2.3)	191 (2.5)	195 (3.2)	190 (3.2)	181 (3.3)	179 (3.6)
<b>Hispanic</b>						
Guam	42 (2.3)	45 (2.6)	30 (2.5)	28 (2.5)	27 (2.3)	27 (2.7)
Nation	174 (3.1)	180 (3.5)	170 (5.6)	171 (4.7)	150 (6.0)	165 (4.5)
	49 (2.2)	50 (2.1)	31 (1.7)	30 (1.9)	21 (1.5)	20 (1.6)
	208 (2.3)	196 (3.2) <	199 (3.0)	192 (4.5)	189 (4.0)	177 (3.8)
<b>Asian</b>						
Guam	— (—)	46 (6.6)	— (—)	28 (5.8)	— (—)	26 (6.8)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	54 (4.3)	— (—)	31 (3.3)	— (—)	15 (3.5)
	— (—)	238 (5.5)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	46 (1.4)	— (—)	32 (1.2)	— (—)	22 (1.1)
Nation	— (—)	189 (2.1)	— (—)	188 (2.0)	— (—)	174 (2.4)
	— (—)	62 (7.3)	— (—)	15 (5.8)	— (—)	23 (5.2)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.5F (continued)

Public School Students' Reports on Reading Books They Have Chosen Themselves

1994 Trial State Assessment

	Almost Every Day		At Least Once a Week		Less than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	42 (1.8)	47 (1.8)	32 (1.8)	33 (2.0)	25 (1.8)	21 (1.4)
Nation	188 (2.6)	191 (2.8)	191 (3.2)	187 (2.8)	167 (4.6)	177 (3.4)
	58 (1.6)	54 (1.7)	27 (1.3)	30 (1.4)	15 (1.0)	16 (1.0)
	230 (1.8)	228 (1.4)	221 (2.5)	220 (2.0)	209 (3.2)	217 (3.7)
<b>Some ed after HS</b>						
Guam	40 (4.3)	50 (4.5)	33 (4.1)	32 (4.6)	27 (4.3)	18 (3.2)
Nation	55 (3.8)	59 (3.3)	27 (3.0)	29 (2.7)	19 (2.3)	12 (1.8)
	228 (2.3)	227 (2.5)	220 (4.8)	220 (3.8)	208 (6.0)	*** (**)
<b>HS graduate</b>						
Guam	47 (2.8)	45 (3.2)	27 (2.9)	36 (2.6)	26 (2.9)	19 (2.7)
Nation	186 (4.1)	178 (4.2)	189 (5.6)	188 (4.5)	170 (5.3)	*** (**)
	55 (3.7)	51 (1.9)	25 (3.0)	28 (1.7)	20 (2.4)	21 (1.3)
	216 (2.5)	214 (2.6)	211 (3.5)	206 (3.4)	200 (3.8)	198 (4.6)
<b>HS non-graduate</b>						
Guam	38 (5.2)	39 (4.6)	34 (5.3)	28 (4.9)	28 (4.3)	33 (4.7)
Nation	49 (3.3)	45 (4.4)	27 (3.0)	33 (3.9)	24 (2.7)	22 (2.4)
	205 (3.2)	196 (6.0)	198 (5.6)	183 (5.9)	*** (**)	*** (**)
<b>I don't know</b>						
Guam	42 (1.9)	46 (1.7)	32 (2.0)	28 (1.7)	26 (1.5)	25 (1.6)
Nation	184 (2.7)	188 (2.3)	188 (2.8)	183 (2.2)	174 (3.8)	175 (3.2)
	52 (1.8)	52 (1.3)	28 (1.3)	28 (1.2)	20 (1.2)	20 (1.1)
	216 (1.9)	212 (1.5)	208 (1.6)	205 (2.3)	199 (2.5)	195 (2.6)
<b>GENDER</b>						
<b>Male</b>						
Guam	38 (1.4)	45 (1.7) >	33 (1.6)	30 (1.2)	29 (1.2)	26 (1.1)
Nation	178 (2.5)	180 (2.2)	184 (2.5)	176 (2.7)	164 (3.0)	165 (3.4)
	52 (1.6)	49 (1.4)	29 (1.3)	30 (1.3)	19 (1.1)	21 (1.0)
	219 (1.6)	216 (1.5)	211 (2.1)	206 (2.0)	197 (2.3)	199 (2.9)
<b>Female</b>						
Guam	47 (1.5)	48 (1.5)	30 (1.5)	32 (1.6)	23 (1.4)	20 (1.5)
Nation	192 (2.2)	195 (2.1)	197 (2.6)	194 (2.3)	179 (3.7)	183 (2.9)
	58 (1.8)	57 (1.2)	26 (1.5)	28 (0.9)	16 (0.9)	15 (0.8)
	225 (1.4)	223 (1.5)	217 (1.8)	218 (2.1)	209 (2.3)	212 (2.7)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	46 (1.1)	== (==)	31 (0.9)	== (==)	23 (0.9)
Nation	== (==)	188 (1.7)	== (==)	185 (1.8)	== (==)	173 (2.1)
	== (==)	53 (1.1)	== (==)	29 (0.9)	== (==)	18 (0.7)
	== (==)	220 (1.1)	== (==)	212 (1.6)	== (==)	204 (2.3)
<b>Non-Public</b>						
Guam	== (==)	35 (2.3)	== (==)	33 (2.6)	== (==)	32 (2.2)
Nation	== (==)	218 (4.5)	== (==)	210 (3.7)	== (==)	214 (4.4)
	== (==)	49 (2.0)	== (==)	31 (1.6)	== (==)	21 (1.6)
	== (==)	235 (2.9)	== (==)	230 (3.1)	== (==)	226 (3.0)
<b>Combined</b>						
Guam	== (==)	45 (1.0)	== (==)	31 (0.9)	== (==)	24 (0.9)
Nation	== (==)	191 (1.6)	== (==)	189 (1.6)	== (==)	181 (1.9)
	== (==)	52 (1.1)	== (==)	29 (0.8)	== (==)	18 (0.7)
	== (==)	221 (1.0)	== (==)	214 (1.5)	== (==)	207 (2.0)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.6**

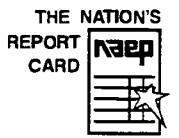
*Public School Teachers' Reports on Sending Students to the Library*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	92 (0.4)	97 (0.5)	7 (0.3)	3 (0.5)	1 (0.1)	0 (0.1)
Nation	181 (1.4)	181 (1.4)	9 (1.9)	9 (1.8)	5 (1.5)	3 (0.8)
	218 (1.5)	214 (1.1)	208 (4.1)	209 (4.7)	208 (4.3)	202 (7.3)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	94 (1.8)	92 (2.7)	5 (1.8)	8 (2.7)	0 (0.4)	0 (0.0)
Nation	194 (3.4)	187 (5.4)	7 (1.9)	8 (2.1)	5 (1.9)	2 (0.8)
	224 (1.7)	223 (1.3)	217 (4.6)	225 (4.1)	212 (4.1)	217 (7.4)
<b>Black</b>						
Guam	93 (2.9)	96 (3.0)	7 (2.9)	4 (3.0)	0 (0.0)	0 (0.0)
Nation	166 (5.9)	79 (3.8)	16 (3.8)	14 (3.5)	5 (2.1)	5 (1.5)
	193 (2.1)	188 (2.1)	195 (4.7)	180 (6.7)	186 (8.1)	
<b>Hispanic</b>						
Guam	91 (1.1)	97 (2.2)	8 (1.1)	3 (2.2)	0 (0.3)	0 (0.0)
Nation	163 (3.1)	87 (2.0)	15 (2.6)	7 (1.3)	8 (2.2)	6 (1.6)
	203 (2.8)	191 (2.2)	196 (6.9)	185 (4.5)		
<b>Asian</b>						
Guam	— (—)	100 (0.0)	— (—)	0 (0.0)	— (—)	0 (0.0)
Nation	— (—)	91 (3.1)	— (—)	7 (2.6)	— (—)	2 (1.1)
	— (—)	236 (6.5)	— (—)		— (—)	
<b>Pacific Islander</b>						
Guam	— (—)	98 (0.3)	— (—)	2 (0.2)	— (—)	0 (0.2)
Nation	— (—)	81 (6.1)	— (—)	13 (5.1)	— (—)	6 (3.6)
	— (—)		— (—)		— (—)	

(continued on next page)





1994 Trial State Assessment

TABLE D6.6 (continued)

## Public School Teachers' Reports on Sending Students to the Library

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	93 (0.7)	98 (0.8)	6 (0.6)	2 (0.8)	2 (0.4)	0 (0.2)
Nation	181 (2.4)	184 (2.0)	---	---	---	---
Guam	87 (2.6)	85 (2.2)	8 (1.8)	10 (2.3)	5 (1.5)	4 (0.9)
Nation	225 (1.9)	224 (1.4)	214 (3.8)	219 (5.6)	---	213 (9.3)
<b>Some ed after HS</b>						
Guam	92 (2.9)	98 (1.4)	5 (2.1)	2 (1.4)	4 (2.1)	0 (0.0)
Nation	192 (5.0)	192 (5.0)	---	---	---	---
Guam	90 (2.5)	86 (2.8)	5 (1.9)	9 (2.5)	5 (1.6)	3 (0.8)
Nation	224 (2.7)	221 (2.5)	---	---	---	---
<b>HS graduate</b>						
Guam	92 (1.9)	98 (0.5)	6 (1.8)	2 (0.1)	1 (0.7)	0 (0.5)
Nation	181 (3.6)	175 (3.0)	---	---	---	---
Guam	83 (3.6)	85 (2.7)	10 (2.5)	9 (2.4)	8 (2.5)	4 (1.0)
Nation	213 (2.6)	209 (2.3)	---	191 (8.6)	---	---
<b>HS non-graduate</b>						
Guam	91 (3.8)	97 (0.4)	7 (3.6)	3 (0.4)	2 (1.5)	0 (0.0)
Nation	173 (5.1)	165 (5.6)	---	---	---	---
Guam	81 (4.5)	88 (2.6)	13 (3.9)	9 (2.1)	5 (2.1)	3 (1.0)
Nation	200 (3.6)	189 (3.5)	---	---	---	---
<b>I don't know</b>						
Guam	92 (0.5)	97 (0.8)	8 (0.5)	3 (0.8)	0 (0.2)	0 (0.0)
Nation	181 (2.0)	180 (1.9)	---	---	---	---
Guam	83 (3.3)	88 (1.5)	11 (2.6)	8 (1.4)	5 (1.7)	3 (0.8)
Nation	212 (1.7)	207 (1.4)	205 (5.1)	202 (4.1)	201 (5.8)	187 (7.8)
<b>GENDER</b>						
<b>Male</b>						
Guam	92 (0.6)	98 (0.9)	7 (0.5)	2 (0.9)	1 (0.3)	0 (0.1)
Nation	174 (1.9)	171 (1.6)	---	---	---	---
Guam	86 (2.8)	87 (1.6)	9 (1.8)	9 (1.6)	5 (1.7)	3 (0.7)
Nation	214 (1.8)	209 (1.4)	201 (5.3)	203 (5.2)	208 (4.0)	191 (7.0)
<b>Female</b>						
Guam	92 (0.6)	97 (0.3)	6 (0.5)	3 (0.2)	1 (0.2)	0 (0.1)
Nation	189 (1.7)	190 (2.0)	---	---	---	---
Guam	85 (2.8)	85 (2.1)	10 (2.2)	10 (2.1)	5 (1.5)	4 (0.9)
Nation	221 (1.6)	220 (1.2)	214 (3.5)	216 (4.7)	209 (6.6)	212 (8.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	97 (0.5)	== (==)	3 (0.5)	== (==)	0 (0.1)
Nation	== (==)	181 (1.4)	== (==)	---	== (==)	---
Guam	== (==)	86 (1.8)	== (==)	9 (1.8)	== (==)	3 (0.8)
Nation	== (==)	214 (1.1)	== (==)	209 (4.7)	== (==)	202 (7.3)
<b>Non-Public</b>						
Guam	== (==)	86 (0.9)	== (==)	14 (1.0)	== (==)	0 (0.4)
Nation	== (==)	217 (3.5)	== (==)	---	== (==)	---
Guam	== (==)	76 (6.0)	== (==)	13 (4.2)	== (==)	8 (3.2)
Nation	== (==)	231 (3.0)	== (==)	234 (4.2)	== (==)	217 (6.8)
<b>Combined</b>						
Guam	== (==)	96 (0.5)	== (==)	4 (0.5)	== (==)	0 (0.1)
Nation	== (==)	185 (1.3)	== (==)	---	== (==)	---
Guam	== (==)	85 (1.6)	== (==)	10 (1.6)	== (==)	4 (0.8)
Nation	== (==)	216 (1.0)	== (==)	213 (3.8)	== (==)	205 (5.9)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.7**

*Public School Teachers' Reports on Assigning Books from the Library*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	61 (0.7)	74 (0.7)	22 (0.7)	15 (0.7)	17 (0.5)	10 (0.6)
Nation	179 (1.7)	180 (1.4)	191 (2.2)	*** (***)	*** (***)	*** (***)
	50 (2.8)	47 (3.1)	31 (2.7)	37 (2.8)	19 (2.3)	17 (1.5)
	216 (1.6)	212 (1.5)	219 (2.2)	215 (2.0)	213 (2.6)	213 (3.2)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	50 (2.9)	76 (3.8)	35 (2.8)	16 (3.4)	14 (2.3)	7 (2.8)
Nation	186 (5.1)	187 (5.3)	206 (4.8)	*** (***)	*** (***)	*** (***)
	49 (3.1)	44 (3.3)	30 (3.0)	38 (3.1)	20 (2.5)	17 (1.8)
	223 (1.9)	223 (1.5)	225 (2.4)	223 (2.2)	219 (3.0)	221 (3.1)
<b>Black</b>						
Guam	43 (5.0)	72 (5.5)	33 (5.7)	13 (5.3)	24 (6.2)	13 (5.6)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	50 (3.6)	52 (4.0)	31 (3.0)	34 (2.8)	18 (3.5)	13 (2.4)
	193 (2.2)	185 (2.6)	196 (3.5)	187 (3.8)	194 (4.6)	193 (5.4)
<b>Hispanic</b>						
Guam	51 (2.3)	73 (2.4)	24 (2.0)	17 (2.0)	25 (2.1)	6 (1.8)
Nation	157 (3.8)	171 (2.9)	175 (5.9)	*** (***)	*** (***)	*** (***)
	56 (5.6)	52 (4.7)	29 (3.8)	29 (4.2)	14 (3.5)	19 (3.1)
	199 (2.6)	192 (3.3)	207 (4.9)	189 (3.4)	196 (4.8)	188 (4.5)
<b>Asian</b>						
Guam	--- (-.-)	77 (4.9)	--- (-.-)	10 (4.1)	--- (-.-)	13 (3.2)
Nation	--- (-.-)	*** (***)	--- (-.-)	*** (***)	--- (-.-)	*** (***)
	--- (-.-)	63 (7.4)	--- (-.-)	23 (5.6)	--- (-.-)	14 (4.2)
	--- (-.-)	229 (7.9)	--- (-.-)	*** (***)	--- (-.-)	*** (***)
<b>Pacific Islander</b>						
Guam	--- (-.-)	74 (1.1)	--- (-.-)	15 (1.0)	--- (-.-)	10 (0.7)
Nation	--- (-.-)	183 (1.6)	--- (-.-)	*** (***)	--- (-.-)	*** (***)
	--- (-.-)	49 (12.6)	--- (-.-)	42 (12.2)	--- (-.-)	9 (4.7)
	--- (-.-)	*** (***)	--- (-.-)	*** (***)	--- (-.-)	*** (***)

(continued on next page)





TABLE D6.7 (continued)

*Public School Teachers' Reports on Assigning Books  
 from the Library*

1994 Trial State Assessment

	At Least Once a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	60 (2.0)	75 (1.4)	22 (1.7)	14 (1.1)	17 (1.6)	10 (0.9)
Nation	179 (2.7)	183 (2.3)	194 (4.7)	*** (***)	*** (***)	*** (***)
Guam	51 (3.6)	46 (3.8)	31 (3.3)	38 (3.6)	18 (2.4)	15 (1.6)
Nation	224 (2.7)	221 (2.0)	227 (2.5)	225 (2.0)	221 (3.8)	224 (4.1)
<b>Some ed after HS</b>						
Guam	63 (3.7)	68 (3.8)	24 (3.5)	15 (2.8)	13 (2.8)	15 (3.4)
Nation	188 (6.1)	188 (5.6)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	49 (5.7)	40 (3.4)	29 (5.0)	38 (3.5)	21 (3.3)	21 (3.1)
Nation	224 (3.2)	220 (3.7)	221 (4.3)	224 (3.4)	217 (4.3)	224 (4.0)
<b>HS graduate</b>						
Guam	60 (3.2)	80 (3.0)	21 (2.5)	14 (2.0)	19 (2.2)	5 (1.6)
Nation	176 (4.5)	177 (3.2)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	42 (3.6)	48 (3.7)	35 (4.1)	35 (3.4)	23 (4.5)	17 (2.4)
Nation	210 (3.0)	209 (3.1)	214 (3.3)	207 (3.3)	213 (4.0)	206 (4.9)
<b>HS non-graduate</b>						
Guam	57 (4.9)	77 (4.8)	20 (4.3)	11 (3.4)	23 (3.5)	11 (4.3)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	48 (5.1)	48 (4.5)	37 (5.0)	35 (3.7)	15 (3.8)	17 (2.9)
Nation	195 (3.6)	194 (5.5)	*** (***)	184 (7.7)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	62 (1.5)	72 (1.6)	21 (1.2)	17 (1.6)	16 (1.0)	9 (0.9)
Nation	179 (2.4)	180 (2.2)	188 (3.6)	*** (***)	*** (***)	*** (***)
Guam	52 (3.0)	48 (3.4)	29 (2.8)	35 (2.8)	19 (2.2)	17 (1.9)
Nation	210 (1.9)	205 (1.7)	213 (2.8)	207 (2.6)	207 (2.6)	206 (3.1)
<b>GENDER</b>						
<b>Male</b>						
Guam	61 (1.3)	73 (1.6)	22 (1.1)	16 (1.1)	16 (0.9)	10 (1.2)
Nation	172 (2.1)	171 (1.8)	187 (3.0)	*** (***)	*** (***)	*** (***)
Guam	49 (2.9)	47 (3.3)	31 (2.8)	37 (2.9)	20 (2.3)	16 (1.5)
Nation	212 (2.0)	207 (1.7)	214 (2.4)	209 (2.6)	210 (2.7)	208 (3.7)
<b>Female</b>						
Guam	60 (1.4)	75 (1.3)	21 (1.2)	15 (1.2)	18 (1.0)	9 (0.9)
Nation	186 (2.0)	189 (2.1)	197 (3.1)	*** (***)	*** (***)	*** (***)
Guam	51 (3.0)	46 (3.1)	31 (2.8)	36 (2.7)	18 (2.5)	17 (1.6)
Nation	219 (1.7)	218 (1.9)	223 (2.3)	221 (1.8)	217 (3.6)	219 (3.4)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	74 (0.7)	== (==)	15 (0.7)	== (==)	10 (0.6)
Nation	== (==)	180 (1.4)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	47 (3.1)	== (==)	37 (2.8)	== (==)	17 (1.5)
Nation	== (==)	212 (1.5)	== (==)	215 (2.0)	== (==)	213 (3.2)
<b>Non-Public</b>						
Guam	== (==)	82 (1.7)	== (==)	18 (1.7)	== (==)	0 (0.0)
Nation	== (==)	214 (3.5)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	44 (5.3)	== (==)	43 (5.0)	== (==)	10 (4.0)
Nation	== (==)	228 (4.1)	== (==)	234 (2.8)	== (==)	226 (7.9)
<b>Combined</b>						
Guam	== (==)	75 (0.7)	== (==)	16 (0.6)	== (==)	8 (0.5)
Nation	== (==)	185 (1.3)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	46 (2.9)	== (==)	37 (2.5)	== (==)	16 (1.3)
Nation	== (==)	214 (1.3)	== (==)	217 (1.7)	== (==)	214 (3.0)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D6.8A

Public School Teachers' Reports on Assessing Students  
Via Multiple-Choice Tests

1994 Trial State Assessment

	Once or Twice a Week		Once or Twice a Month		Once or Twice a Year		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	29 (1.1)	20 (0.8)	49 (1.1)	48 (1.0)	11 (0.7)	9 (0.7)	10 (0.6)	23 (0.9)
Nation	179 (2.0)	*** (***)	182 (1.9)	180 (1.9)	*** (***)	*** (***)	*** (***)	*** (***)
	14 (2.1)	12 (1.9)	49 (3.3)	49 (2.1)	15 (2.2)	17 (1.5)	21 (3.4)	22 (2.3)
	208 (3.1)	211 (3.1)	217 (1.7)	212 (1.7)	220 (2.5)	216 (3.2)	218 (3.5)	215 (2.7)
<b>RACE/ETHNICITY</b>								
<b>White</b>								
Guam	31 (2.9)	27 (2.9)	45 (3.5)	46 (3.5)	17 (2.5)	7 (2.3)	7 (1.4)	20 (3.0)
Nation	194 (5.4)	*** (***)	193 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	12 (2.3)	11 (2.1)	50 (3.9)	47 (2.5)	16 (2.8)	18 (2.1)	22 (3.9)	24 (2.7)
	217 (3.7)	222 (3.2)	224 (1.7)	223 (2.0)	224 (2.5)	222 (2.7)	225 (3.6)	224 (2.7)
<b>Black</b>								
Guam	36 (7.3)	24 (6.3)	44 (6.7)	49 (5.1)	11 (3.0)	11 (4.0)	9 (3.6)	17 (4.7)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	23 (4.5)	15 (2.7)	52 (4.3)	59 (3.0)	10 (2.2)	10 (2.1)	15 (3.2)	15 (2.8)
	194 (4.2)	184 (4.5)	195 (2.4)	188 (2.7)	199 (5.5)	186 (5.5)	189 (5.1)	184 (3.8)
<b>Hispanic</b>								
Guam	28 (2.4)	19 (2.4)	53 (2.2)	55 (3.0)	6 (1.3)	8 (1.4)	13 (1.6)	18 (2.4)
Nation	161 (5.1)	*** (***)	163 (3.2)	169 (3.6)	*** (***)	*** (***)	*** (***)	*** (***)
	20 (3.1)	12 (3.3)	44 (4.5)	48 (3.8)	14 (2.4)	18 (3.5)	22 (4.5)	21 (2.9)
	198 (3.6)	192 (6.9)	202 (3.0)	189 (2.6)	204 (6.7)	197 (5.7)	203 (4.8)	186 (6.4)
<b>Asian</b>								
Guam	— (—)	38 (8.7)	— (—)	42 (8.2)	— (—)	6 (3.1)	— (—)	15 (3.9)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	6 (2.4)	— (—)	37 (8.0)	— (—)	27 (5.8)	— (—)	30 (6.3)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>								
Guam	— (—)	18 (1.0)	— (—)	47 (1.5)	— (—)	9 (1.1)	— (—)	26 (1.1)
Nation	— (—)	*** (***)	— (—)	183 (1.9)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	11 (5.7)	— (—)	38 (8.4)	— (—)	31 (12.0)	— (—)	20 (6.5)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D6.8A (continued)

Public School Teachers' Reports on Assessing Students Via Multiple-Choice Tests

1994 Trial State Assessment

	Once or Twice a Week		Once or Twice a Month		Once or Twice a Year		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	28 (.2.1)	20 (.1.5)	49 (.2.3)	48 (.1.9)	14 (.1.5)	6 (.1.6)	9 (.1.1)	23 (.1.6)
Nation	176 (.3.3)	*** (**.*)	184 (.2.8)	181 (.3.2)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	214 (.4.6)	216 (.4.4)	224 (.2.4)	221 (.2.1)	227 (.3.2)	229 (.3.5)	229 (.4.6)	226 (.3.3)
<b>Some ed after HS</b>								
Guam	33 (.3.7)	25 (.3.9)	52 (.4.6)	44 (.4.6)	6 (.2.4)	9 (.3.1)	8 (.1.5)	22 (.3.2)
Nation	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	13 (.3.1)	10 (.2.0)	53 (.5.3)	49 (.4.3)	16 (.3.0)	17 (.2.8)	18 (.4.0)	24 (.3.5)
Nation	*** (**.*)	*** (**.*)	226 (.3.7)	224 (.2.6)	*** (**.*)	218 (.5.2)	*** (**.*)	219 (.4.9)
<b>HS graduate</b>								
Guam	25 (.3.8)	20 (.2.8)	49 (.3.1)	45 (.3.2)	13 (.2.6)	11 (.2.5)	13 (.1.9)	24 (.2.6)
Nation	179 (.5.8)	*** (**.*)	178 (.4.6)	180 (.5.0)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	13 (.3.2)	14 (.3.3)	54 (.3.6)	49 (.3.4)	15 (.3.3)	18 (.2.7)	19 (.3.5)	19 (.3.2)
Nation	213 (.6.0)	208 (.5.2)	210 (.2.6)	207 (.2.5)	217 (.4.9)	206 (.5.9)	216 (.4.7)	208 (.5.2)
<b>HS non-graduate</b>								
Guam	27 (.4.9)	15 (.5.6)	49 (.4.6)	41 (.6.4)	9 (.2.5)	11 (.3.0)	15 (.3.7)	32 (.6.3)
Nation	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	15 (.3.2)	12 (.2.8)	50 (.5.0)	51 (.6.2)	11 (.3.8)	13 (.2.6)	24 (.4.7)	25 (.6.2)
Nation	*** (**.*)	*** (**.*)	202 (.4.6)	190 (.5.0)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
<b>I don't know</b>								
Guam	31 (.1.5)	19 (.1.6)	49 (.1.6)	50 (.1.5)	10 (.1.1)	6 (.1.0)	10 (.1.2)	22 (.1.4)
Nation	179 (.3.6)	*** (**.*)	182 (.3.0)	179 (.2.3)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	16 (.2.5)	12 (.2.4)	49 (.3.9)	49 (.2.5)	14 (.2.7)	16 (.2.2)	21 (.3.7)	21 (.2.3)
Nation	203 (.3.1)	206 (.4.4)	212 (.2.0)	204 (.2.1)	212 (.3.9)	207 (.2.9)	211 (.3.7)	207 (.2.9)
<b>GENDER</b>								
<b>Male</b>								
Guam	30 (.1.3)	19 (.1.1)	50 (.1.5)	47 (.1.6)	10 (.1.1)	9 (.1.0)	11 (.0.8)	24 (.1.4)
Nation	171 (.2.5)	*** (**.*)	175 (.2.2)	170 (.2.8)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	14 (.2.3)	12 (.1.9)	49 (.3.6)	48 (.2.2)	16 (.2.6)	17 (.1.4)	21 (.3.6)	22 (.2.3)
Nation	204 (.4.1)	205 (.3.8)	213 (.1.8)	207 (.2.1)	218 (.2.7)	209 (.3.6)	214 (.4.4)	210 (.3.5)
<b>Female</b>								
Guam	29 (.1.5)	20 (.1.1)	49 (.1.4)	49 (.1.6)	12 (.0.9)	8 (.0.8)	10 (.1.0)	22 (.1.3)
Nation	187 (.2.7)	*** (**.*)	190 (.2.4)	188 (.2.6)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Guam	14 (.2.0)	11 (.2.0)	50 (.3.2)	50 (.2.3)	15 (.2.1)	17 (.1.8)	21 (.3.2)	22 (.2.5)
Nation	213 (.3.0)	217 (.3.3)	221 (.2.0)	216 (.1.7)	221 (.3.2)	222 (.3.4)	223 (.3.4)	220 (.2.6)
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	20 (.0.8)	== (==)	48 (.1.0)	== (==)	9 (.0.7)	== (==)	23 (.0.9)
Nation	== (==)	*** (**.*)	== (==)	180 (.1.9)	== (==)	*** (**.*)	== (==)	*** (**.*)
Guam	== (==)	12 (.1.9)	== (==)	49 (.2.1)	== (==)	17 (.1.5)	== (==)	22 (.2.3)
Nation	== (==)	211 (.3.1)	== (==)	212 (.1.7)	== (==)	216 (.3.2)	== (==)	215 (.2.7)
<b>Non-Public</b>								
Guam	== (==)	58 (.2.6)	== (==)	42 (.2.6)	== (==)	0 (.0.0)	== (==)	0 (.0.0)
Nation	== (==)	*** (**.*)	== (==)	*** (**.*)	== (==)	*** (**.*)	== (==)	*** (**.*)
Guam	== (==)	18 (.4.2)	== (==)	48 (.5.0)	== (==)	15 (.3.9)	== (==)	19 (.4.3)
Nation	== (==)	225 (.5.9)	== (==)	230 (.3.4)	== (==)	241 (.4.5)	== (==)	228 (.6.8)
<b>Combined</b>								
Guam	== (==)	25 (.0.7)	== (==)	47 (.0.9)	== (==)	8 (.0.6)	== (==)	20 (.0.7)
Nation	== (==)	*** (**.*)	== (==)	*** (**.*)	== (==)	*** (**.*)	== (==)	*** (**.*)
Guam	== (==)	12 (.1.8)	== (==)	49 (.1.9)	== (==)	17 (.1.5)	== (==)	22 (.2.2)
Nation	== (==)	213 (.2.9)	== (==)	214 (.1.6)	== (==)	218 (.3.0)	== (==)	216 (.2.5)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.

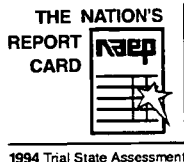


TABLE D6.8B

*Public School Teachers' Reports on Assessing Students  
With Paragraph Length Written Responses About  
What They Have Read*

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	1994	1994	1994	1994
<b>Percentage and Proficiency</b>				
<b>TOTAL</b>				
Guam	61 (0.9) 181 (1.6)	34 (0.8) 178 (1.9)	1 (0.2) *** (***)	4 (0.3) *** (***)
Nation	39 (3.0) 215 (1.5)	44 (2.9) 214 (1.5)	10 (1.4) 213 (3.4)	7 (1.4) 201 (3.8)
<b>RACE/ ETHNICITY</b>				
<b>White</b>				
Guam	54 (4.4) 186 (6.8)	40 (4.5) *** (***)	1 (0.8) *** (***)	5 (2.5) *** (***)
Nation	39 (3.4) 224 (1.8)	45 (3.2) 223 (1.6)	10 (1.7) 223 (3.5)	6 (1.5) 209 (3.7)
<b>Black</b>				
Guam	61 (7.8) *** (***)	36 (8.0) *** (***)	0 (0.0) *** (***)	2 (2.1) *** (***)
Nation	39 (3.7) 188 (3.0)	39 (3.7) 185 (2.7)	11 (2.1) 190 (5.1)	11 (3.2) 183 (3.9)
<b>Hispanic</b>				
Guam	62 (3.1) 170 (3.4)	31 (2.8) 167 (4.5)	1 (0.7) *** (***)	5 (1.4) *** (***)
Nation	39 (4.1) 193 (3.3)	45 (3.9) 189 (2.8)	10 (2.2) 188 (9.5)	6 (1.3) *** (***)
<b>Asian</b>				
Guam	73 (5.5) *** (***)	27 (5.5) *** (***)	0 (0.0) *** (***)	0 (0.0) *** (***)
Nation	54 (6.3) 239 (7.3)	39 (6.1) 226 (6.4)	5 (2.3) *** (***)	2 (1.3) *** (***)
<b>Pacific Islander</b>				
Guam	60 (1.1) 185 (1.9)	34 (1.1) 181 (2.5)	1 (0.5) *** (***)	4 (0.4) *** (***)
Nation	40 (6.1) *** (***)	54 (7.6) *** (***)	6 (3.1) *** (***)	0 (0.0) *** (***)

(continued on next page)





1994 Trial State Assessment

TABLE D6.8B (continued)

*Public School Teachers' Reports on Assessing Students  
With Paragraph Length Written Responses About  
What They Have Read*

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	1994	1994	1994	1994
<b>Percentage and Proficiency</b>				
<b>PARENTS' EDUCATION</b>				
<b>College graduate</b>				
Guam	62 (1.7)	33 (1.8)	1 (0.7)	4 (0.6)
Nation	186 (2.6)	178 (4.1)	*** (***)	*** (***)
Guam	44 (3.4)	41 (3.4)	9 (1.4)	5 (1.3)
Nation	225 (1.7)	223 (1.9)	225 (3.7)	209 (6.1)
<b>Some ed after HS</b>				
Guam	57 (4.6)	35 (4.8)	3 (1.0)	5 (2.5)
Nation	*** (***)	*** (***)	*** (***)	*** (***)
Guam	38 (4.4)	44 (3.8)	11 (3.0)	7 (1.7)
Nation	218 (4.0)	222 (3.4)	*** (***)	*** (***)
<b>HS graduate</b>				
Guam	62 (3.1)	32 (3.3)	1 (0.7)	5 (1.6)
Nation	174 (3.7)	176 (5.2)	*** (***)	*** (***)
Guam	37 (3.6)	46 (3.2)	10 (1.9)	7 (1.4)
Nation	206 (3.2)	206 (2.5)	213 (6.2)	*** (***)
<b>HS non-graduate</b>				
Guam	68 (6.2)	27 (5.8)	0 (0.0)	5 (2.5)
Nation	*** (***)	*** (***)	*** (***)	*** (***)
Guam	36 (4.4)	38 (4.3)	12 (2.8)	14 (3.1)
Nation	196 (5.0)	187 (8.2)	*** (***)	*** (***)
<b>I don't know</b>				
Guam	60 (1.6)	36 (1.5)	1 (0.0)	3 (0.5)
Nation	179 (2.4)	180 (3.1)	*** (***)	*** (***)
Guam	36 (3.0)	47 (2.9)	10 (1.5)	7 (1.7)
Nation	207 (2.0)	207 (2.1)	202 (5.1)	192 (4.3)
<b>GENDER</b>				
<b>Male</b>				
Guam	61 (1.3)	34 (1.4)	1 (0.7)	5 (0.5)
Nation	171 (2.1)	170 (2.5)	*** (***)	*** (***)
Guam	40 (3.1)	44 (3.1)	9 (1.3)	7 (1.4)
Nation	209 (1.8)	208 (1.8)	210 (4.4)	195 (4.8)
<b>Female</b>				
Guam	61 (1.3)	34 (1.2)	1 (0.3)	3 (0.6)
Nation	191 (2.1)	187 (3.1)	*** (***)	*** (***)
Guam	39 (3.0)	44 (2.7)	10 (1.7)	7 (1.4)
Nation	221 (1.9)	220 (1.6)	216 (3.3)	207 (3.9)
<b>SCHOOL TYPE</b>				
<b>Public</b>				
Guam	61 (0.9)	34 (0.8)	1 (0.2)	4 (0.3)
Nation	181 (1.6)	178 (1.9)	*** (***)	*** (***)
Guam	39 (3.0)	44 (2.9)	10 (1.4)	7 (1.4)
Nation	215 (1.5)	214 (1.5)	213 (3.4)	201 (3.8)
<b>Non-Public</b>				
Guam	48 (2.0)	34 (2.6)	9 (0.8)	9 (1.2)
Nation	*** (***)	*** (***)	*** (***)	*** (***)
Guam	28 (4.6)	54 (4.8)	11 (3.3)	7 (3.0)
Nation	225 (5.0)	232 (3.5)	240 (4.1)	222 (9.5)
<b>Combined</b>				
Guam	59 (0.8)	34 (0.8)	2 (0.2)	5 (0.3)
Nation	*** (***)	*** (***)	*** (***)	*** (***)
Guam	38 (2.7)	45 (2.6)	10 (1.4)	7 (1.2)
Nation	216 (1.4)	216 (1.3)	216 (3.3)	203 (3.7)

The 1992 data are not reported for this variable due to a rewording of the question for the 1994 assessment.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D6.8C**

*Public School Teachers' Reports on Assessing Students  
Via Reading Portfolios*

1994 Trial State Assessment

	Once or Twice a Week		Once or Twice a Month		Once or Twice a Year		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	17 (0.7)	28 (0.9)	30 (1.2)	37 (1.0)	25 (0.9)	16 (0.7)	28 (1.0)	19 (0.8)
Nation	177 (3.4)	176 (1.9)	183 (1.9)	186 (2.0)	178 (1.8)	*** (***)	185 (2.2)	*** (***)
	14 (1.8)	15 (1.6)	25 (2.3)	28 (2.6)	13 (2.3)	16 (2.0)	47 (3.3)	43 (2.5)
	217 (4.2)	209 (2.4)	221 (2.4)	212 (2.8)	216 (3.7)	217 (2.8)	214 (1.4)	214 (1.8)
<b>RACE/ ETHNICITY</b>								
<b>White</b>								
Guam	13 (1.8)	27 (3.8)	38 (3.4)	49 (4.4)	19 (2.0)	13 (3.0)	29 (2.7)	11 (2.7)
Nation	*** (***)	*** (***)	198 (4.9)	193 (6.3)	*** (***)	*** (***)	197 (5.3)	*** (***)
	15 (2.2)	13 (1.8)	28 (2.7)	25 (3.2)	13 (3.0)	16 (2.2)	47 (3.8)	46 (3.4)
	224 (4.4)	222 (2.4)	229 (2.4)	224 (2.1)	226 (3.0)	224 (3.2)	219 (1.8)	222 (2.0)
<b>Black</b>								
Guam	17 (4.6)	34 (8.0)	33 (6.4)	30 (5.2)	28 (5.5)	21 (6.5)	22 (5.0)	15 (4.8)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	14 (2.6)	22 (3.3)	23 (3.7)	27 (3.4)	15 (3.3)	13 (2.2)	48 (4.0)	39 (3.7)
	188 (4.3)	186 (3.1)	193 (2.8)	183 (4.1)	190 (5.2)	191 (3.8)	197 (2.4)	188 (2.9)
<b>Hispanic</b>								
Guam	19 (1.5)	23 (2.5)	33 (2.4)	45 (3.6)	20 (2.1)	17 (2.4)	28 (2.4)	15 (2.5)
Nation	*** (***)	167 (6.3)	164 (4.4)	175 (4.6)	163 (5.6)	*** (***)	168 (5.4)	*** (***)
	13 (3.0)	16 (3.1)	23 (3.3)	32 (3.6)	12 (2.2)	17 (3.8)	51 (3.9)	35 (3.2)
	203 (5.2)	184 (4.8)	204 (4.6)	186 (4.5)	190 (5.1)	201 (3.7)	202 (3.1)	191 (3.7)
<b>Asian</b>								
Guam	— (—)	18 (4.0)	— (—)	63 (6.8)	— (—)	10 (4.9)	— (—)	12 (5.2)
Nation	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	27 (4.5)	— (—)	25 (4.9)	— (—)	17 (5.4)	— (—)	31 (5.6)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>								
Guam	— (—)	30 (1.3)	— (—)	33 (1.3)	— (—)	18 (1.2)	— (—)	21 (1.2)
Nation	— (—)	179 (2.5)	— (—)	190 (2.8)	— (—)	*** (***)	— (—)	*** (***)
	— (—)	34 (8.1)	— (—)	32 (8.5)	— (—)	12 (5.9)	— (—)	22 (6.2)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)



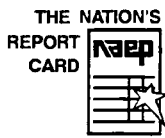


TABLE D6.8C (continued)

Public School Teachers' Reports on Assessing Students Via Reading Portfolios

1994 Trial State Assessment

	Once or Twice a Week		Once or Twice a Month		Once or Twice a Year		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	15 (1.5)	31 (1.6)	27 (1.9)	38 (2.0)	28 (1.4)	16 (1.6)	30 (2.2)	15 (1.6)
Nation	179 (5.4)	179 (4.0)	182 (3.9)	189 (2.7)	177 (3.3)	*** (***)	186 (3.3)	*** (***)
Guam	225 (7.5)	220 (3.0)	229 (3.0)	221 (3.0)	223 (4.3)	228 (3.3)	222 (2.3)	224 (2.6)
<b>Some ed after HS</b>								
Guam	16 (3.7)	23 (4.8)	33 (4.2)	43 (4.5)	31 (4.2)	11 (3.6)	21 (3.8)	24 (4.3)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	15 (3.4)	15 (2.6)	27 (4.1)	27 (3.6)	11 (3.1)	14 (2.4)	47 (5.5)	45 (3.6)
Nation	*** (***)	216 (5.8)	226 (6.0)	221 (4.8)	*** (***)	*** (***)	220 (3.0)	224 (3.4)
<b>HS graduate</b>								
Guam	19 (2.2)	31 (2.5)	33 (4.0)	35 (2.5)	24 (3.5)	13 (1.8)	24 (2.7)	21 (2.7)
Nation	*** (***)	*** (***)	184 (5.7)	186 (5.5)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	12 (3.0)	13 (1.9)	26 (3.4)	23 (2.7)	15 (2.9)	16 (2.9)	48 (4.6)	47 (3.2)
Nation	*** (***)	198 (6.1)	216 (4.0)	203 (4.2)	211 (6.5)	210 (3.8)	211 (2.6)	211 (2.9)
<b>HS non-graduate</b>								
Guam	15 (4.0)	25 (5.0)	28 (5.5)	35 (5.2)	29 (4.3)	17 (4.6)	27 (4.5)	23 (4.6)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Guam	15 (3.2)	15 (2.8)	17 (3.7)	26 (3.8)	15 (4.1)	13 (3.4)	52 (5.4)	47 (4.4)
Nation	*** (***)	*** (***)	*** (***)	184 (6.1)	*** (***)	*** (***)	196 (5.3)	187 (6.6)
<b>I don't know</b>								
Guam	18 (1.3)	26 (1.7)	32 (1.8)	37 (1.8)	22 (1.2)	17 (1.1)	28 (1.6)	20 (1.6)
Nation	173 (3.9)	177 (3.6)	183 (2.7)	183 (3.5)	178 (3.1)	*** (***)	184 (4.0)	*** (***)
Guam	15 (2.1)	15 (1.8)	24 (2.6)	25 (2.6)	13 (2.6)	17 (2.4)	48 (3.5)	43 (2.5)
Nation	211 (3.6)	199 (3.0)	214 (3.0)	205 (3.3)	213 (4.5)	210 (3.9)	208 (1.8)	206 (2.1)
<b>GENDER</b>								
<b>Male</b>								
Guam	17 (1.2)	28 (1.5)	30 (1.6)	37 (1.7)	25 (1.7)	16 (1.2)	28 (1.4)	20 (1.2)
Nation	171 (4.1)	167 (2.9)	178 (2.5)	176 (2.8)	167 (2.9)	*** (***)	178 (2.7)	*** (***)
Guam	15 (1.8)	16 (1.8)	26 (2.5)	26 (2.7)	13 (2.4)	15 (2.0)	46 (3.4)	42 (2.5)
Nation	212 (4.7)	205 (3.0)	218 (2.8)	206 (3.1)	211 (4.1)	211 (3.1)	210 (1.7)	209 (2.2)
<b>Female</b>								
Guam	16 (1.0)	28 (1.6)	31 (1.6)	38 (1.7)	25 (1.0)	16 (1.0)	28 (1.7)	18 (1.2)
Nation	183 (4.4)	184 (3.0)	189 (2.8)	196 (2.8)	188 (2.4)	*** (***)	193 (2.5)	*** (***)
Guam	14 (2.0)	14 (1.5)	25 (2.3)	27 (2.6)	13 (2.4)	16 (2.1)	48 (3.4)	43 (2.5)
Nation	222 (4.7)	214 (2.6)	224 (2.7)	218 (3.1)	221 (3.8)	224 (3.3)	217 (1.6)	220 (1.8)
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	28 (0.9)	== (==)	37 (1.0)	== (==)	16 (0.7)	== (==)	19 (0.8)
Nation	== (==)	176 (1.9)	== (==)	186 (2.0)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	15 (1.6)	== (==)	28 (2.8)	== (==)	16 (2.0)	== (==)	43 (2.5)
Nation	== (==)	209 (2.4)	== (==)	212 (2.8)	== (==)	217 (2.8)	== (==)	214 (1.8)
<b>Non-Public</b>								
Guam	== (==)	15 (1.0)	== (==)	43 (1.3)	== (==)	10 (0.5)	== (==)	31 (0.6)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	6 (1.8)	== (==)	23 (4.6)	== (==)	8 (2.6)	== (==)	63 (4.3)
Nation	== (==)	236 (4.1)	== (==)	224 (6.6)	== (==)	234 (6.5)	== (==)	232 (2.7)
<b>Combined</b>								
Guam	== (==)	26 (0.8)	== (==)	38 (0.8)	== (==)	15 (0.6)	== (==)	20 (0.7)
Nation	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)	== (==)	*** (***)
Guam	== (==)	14 (1.4)	== (==)	26 (2.3)	== (==)	15 (1.8)	== (==)	45 (2.2)
Nation	== (==)	211 (2.3)	== (==)	213 (2.5)	== (==)	218 (2.7)	== (==)	217 (1.6)

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

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic...\*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D8.1**

*Public School Students' Reports on the Frequency of Reading for Fun*

1994 Trial State Assessment

	Almost Every Day		Once or Twice a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	39 (1.0)	44 (1.3)	35 (1.0)	32 (1.0)	10 (0.6)	10 (0.7)	16 (0.8)	14 (0.8)
Nation	186 (1.8)	187 (1.7)	185 (1.7)	182 (1.8)	175 (3.1)	175 (3.0)	174 (3.3)	170 (3.2)
	43 (1.0)	45 (0.7)	32 (0.9)	31 (0.7)	12 (0.5)	12 (0.5)	13 (0.6)	12 (0.4)
	221 (1.3)	221 (1.3)	217 (1.3)	212 (1.3)	208 (1.8)	206 (2.3)	198 (2.0)	195 (2.0)
<b>RACE/ ETHNICITY</b>								
<b>White</b>								
Guam	43 (3.2)	46 (3.1)	32 (3.0)	29 (3.4)	9 (1.5)	9 (2.2)	15 (2.3)	16 (2.2)
Nation	203 (4.4)	197 (5.2)	190 (4.8)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	44 (1.2)	46 (1.0)	32 (1.2)	30 (1.0)	12 (0.6)	12 (0.6)	12 (0.8)	12 (0.4)
	230 (1.6)	231 (1.4)	225 (1.5)	222 (1.5)	215 (2.0)	216 (2.8)	204 (2.4)	202 (2.3)
<b>Black</b>								
Guam	45 (5.2)	40 (5.2)	32 (5.6)	30 (4.4)	12 (2.7)	14 (4.3)	11 (3.7)	16 (4.2)
Nation	40 (1.7)	40 (1.4)	31 (1.6)	34 (1.5)	13 (1.2)	12 (0.9)	16 (1.6)	14 (1.3)
	195 (2.2)	193 (2.0)	195 (2.5)	186 (2.6)	186 (3.9)	180 (4.1)	186 (3.8)	178 (3.3)
<b>Hispanic</b>								
Guam	36 (2.7)	43 (2.5)	37 (2.7)	31 (2.2)	12 (1.8)	10 (1.7)	15 (2.0)	16 (1.9)
Nation	170 (4.1)	180 (3.4)	165 (4.3)	168 (4.2)	*** (***)	*** (***)	*** (***)	*** (***)
	44 (2.1)	43 (1.9)	32 (1.9)	33 (1.0)	12 (1.3)	11 (1.2)	13 (1.1)	13 (1.4)
	205 (2.5)	194 (3.3)	199 (3.2)	191 (3.5)	198 (6.3)	175 (6.2)	187 (4.6)	181 (4.5)
<b>Asian</b>								
Guam	— (—)	52 (5.6)	— (—)	32 (5.1)	— (—)	10 (3.7)	— (—)	6 (3.1)
Nation	— (—)	50 (5.5)	— (—)	38 (5.0)	— (—)	10 (2.1)	— (—)	2 (1.4)
	— (—)	236 (8.7)	— (—)	227 (5.8)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>								
Guam	— (—)	44 (1.6)	— (—)	34 (1.4)	— (—)	9 (0.7)	— (—)	13 (0.9)
Nation	— (—)	187 (1.8)	— (—)	184 (2.1)	— (—)	176 (3.8)	— (—)	172 (3.6)
	— (—)	45 (6.9)	— (—)	34 (5.8)	— (—)	10 (5.5)	— (—)	10 (4.1)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D8.1 (continued)

Public School Students' Reports on the Frequency of Reading for Fun

1994 Trial State Assessment

Almost Every Day		Once or Twice a Week		Once or Twice a Month		Never or Hardly Ever	
1992	1994	1992	1994	1992	1994	1992	1994

Percentage and Proficiency								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	43 (1.8)	46 (2.0)	35 (2.1)	33 (1.8)	9 (1.1)	9 (1.0)	13 (1.3)	12 (1.0)
Nation	188 (2.5)	192 (2.7)	184 (3.2)	181 (2.7)	*** (***)	177 (5.3)	170 (6.2)	173 (4.5)
Nation	48 (1.3)	49 (1.0)	32 (1.2)	31 (1.1)	10 (0.7)	10 (0.9)	10 (0.8)	9 (0.7)
	230 (2.1)	230 (1.9)	223 (1.6)	219 (2.0)	213 (2.7)	214 (3.1)	205 (3.6)	205 (3.2)
<b>Some ed after HS</b>								
Guam	40 (4.1)	49 (4.4)	33 (3.7)	31 (3.5)	12 (2.6)	10 (2.7)	15 (3.5)	10 (2.4)
Nation	*** (***)	196 (6.0)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	46 (2.7)	40 (2.5)	33 (3.0)	35 (2.4)	11 (1.8)	13 (1.6)	10 (1.6)	12 (1.5)
	226 (3.1)	232 (2.4)	223 (2.6)	221 (3.5)	*** (***)	*** (***)	*** (***)	*** (***)
<b>HS graduate</b>								
Guam	40 (3.0)	46 (2.9)	34 (2.5)	30 (2.5)	11 (1.5)	11 (1.9)	15 (2.0)	13 (1.7)
Nation	183 (4.0)	179 (4.2)	189 (6.5)	180 (5.3)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	38 (2.3)	40 (1.6)	34 (2.3)	34 (1.9)	15 (1.6)	14 (1.3)	13 (1.4)	11 (1.0)
	218 (3.0)	215 (2.7)	211 (3.6)	205 (3.1)	204 (3.3)	202 (4.7)	198 (4.0)	196 (3.3)
<b>HS non-graduate</b>								
Guam	37 (5.8)	33 (5.0)	33 (5.7)	36 (5.5)	10 (2.7)	16 (3.3)	20 (5.1)	15 (3.2)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	40 (3.3)	43 (3.1)	30 (3.3)	26 (2.4)	10 (2.1)	13 (2.4)	19 (3.5)	18 (2.7)
	204 (4.3)	194 (4.2)	201 (4.8)	192 (5.1)	*** (***)	*** (***)	*** (***)	*** (***)
<b>I don't know</b>								
Guam	37 (1.8)	42 (1.9)	36 (1.5)	32 (1.6)	10 (0.9)	10 (0.8)	18 (1.5)	16 (1.5)
Nation	185 (2.7)	184 (2.3)	184 (2.4)	185 (2.7)	175 (5.1)	173 (4.6)	176 (4.4)	172 (4.0)
Nation	40 (1.6)	42 (1.1)	31 (1.6)	31 (1.1)	13 (0.9)	13 (0.9)	16 (1.1)	15 (0.9)
	214 (1.7)	212 (1.4)	213 (1.8)	206 (2.0)	204 (2.9)	200 (3.7)	196 (2.3)	190 (2.8)
<b>GENDER</b>								
<b>Male</b>								
Guam	36 (1.3)	37 (1.5)	37 (1.5)	35 (1.3)	10 (0.8)	12 (0.9)	18 (1.0)	16 (1.1)
Nation	177 (2.2)	176 (2.3)	180 (2.4)	175 (2.3)	170 (4.6)	171 (3.9)	170 (4.4)	166 (3.4)
Nation	36 (1.3)	36 (1.0)	33 (1.3)	32 (1.0)	14 (0.7)	15 (0.7)	17 (1.0)	16 (0.6)
	216 (1.7)	216 (1.9)	215 (1.8)	208 (1.6)	208 (2.3)	202 (2.5)	198 (2.8)	195 (2.1)
<b>Female</b>								
Guam	43 (1.6)	51 (1.5)	33 (1.3)	30 (1.3)	10 (0.8)	8 (1.0)	14 (1.0)	11 (1.0)
Nation	195 (2.6)	194 (2.4)	191 (2.3)	192 (2.5)	180 (3.8)	181 (5.0)	179 (4.9)	176 (5.5)
Nation	51 (1.3)	53 (1.1)	30 (1.1)	31 (0.9)	9 (0.6)	9 (0.8)	9 (0.7)	7 (0.5)
	225 (1.4)	225 (1.3)	219 (1.4)	216 (1.7)	207 (3.1)	213 (3.8)	198 (2.7)	193 (3.5)
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	44 (1.3)	== (==)	32 (1.0)	== (==)	10 (0.7)	== (==)	14 (0.8)
Nation	== (==)	187 (1.7)	== (==)	182 (1.8)	== (==)	175 (3.0)	== (==)	170 (3.2)
Nation	== (==)	45 (0.7)	== (==)	31 (0.7)	== (==)	12 (0.5)	== (==)	12 (0.4)
	== (==)	221 (1.3)	== (==)	212 (1.3)	== (==)	206 (2.3)	== (==)	195 (2.0)
<b>Non-Public</b>								
Guam	== (==)	44 (2.9)	== (==)	35 (3.1)	== (==)	10 (0.9)	== (==)	11 (1.8)
Nation	== (==)	219 (3.9)	== (==)	218 (3.1)	== (==)	*** (***)	== (==)	*** (***)
Nation	== (==)	44 (2.2)	== (==)	35 (1.8)	== (==)	11 (1.0)	== (==)	10 (1.0)
	== (==)	239 (2.9)	== (==)	226 (3.2)	== (==)	228 (3.2)	== (==)	217 (3.3)
<b>Combined</b>								
Guam	== (==)	44 (1.2)	== (==)	33 (1.0)	== (==)	10 (0.6)	== (==)	13 (0.8)
Nation	== (==)	191 (1.5)	== (==)	189 (1.6)	== (==)	*** (***)	== (==)	*** (***)
Nation	== (==)	45 (0.7)	== (==)	32 (0.7)	== (==)	12 (0.5)	== (==)	12 (0.4)
	== (==)	223 (1.2)	== (==)	213 (1.1)	== (==)	208 (2.1)	== (==)	197 (1.9)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D8.2**

*Public School Students' Reports on the Number of Books Read Outside of School in the Past Month*

1994 Trial State Assessment

	None		One or Two		Three or Four		Five or More	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	13 (0.7)	11 (0.6)	27 (1.0)	21 (0.7)	20 (0.9)	22 (0.9)	39 (1.1)	46 (1.1)
Nation	169 (3.0)	161 (3.3)	170 (2.1)	175 (1.6)	183 (2.4)	178 (2.0)	196 (1.8)	191 (1.6)
	7 (0.4)	9 (0.6)	25 (0.8)	26 (0.8)	24 (0.7)	23 (0.6)	44 (1.0)	42 (0.8)
	196 (2.6)	192 (2.5)	214 (1.6)	211 (1.5)	219 (1.6)	216 (1.8)	217 (1.3)	215 (1.4)
<b>RACE/ ETHNICITY</b>								
<b>White</b>								
Guam	7 (1.4)	11 (2.3)	25 (2.9)	22 (2.7)	19 (2.6)	22 (3.3)	49 (3.7)	45 (3.5)
Nation	6 (0.6)	8 (0.7)	27 (1.1)	28 (1.0)	25 (0.9)	24 (0.8)	42 (1.4)	40 (0.9)
	204 (3.5)	202 (3.2)	221 (1.7)	220 (1.8)	226 (1.9)	226 (2.1)	225 (1.6)	227 (1.6)
<b>Black</b>								
Guam	16 (4.6)	18 (4.6)	25 (6.6)	25 (5.1)	22 (5.0)	22 (3.5)	37 (7.2)	35 (5.0)
Nation	10 (1.1)	10 (1.2)	20 (1.5)	22 (1.4)	20 (1.4)	21 (1.2)	49 (1.8)	47 (1.8)
	178 (4.5)	169 (3.4)	188 (3.8)	182 (2.4)	193 (3.1)	185 (3.8)	196 (2.1)	192 (2.5)
<b>Hispanic</b>								
Guam	13 (1.8)	13 (1.6)	29 (2.1)	25 (2.1)	21 (2.1)	21 (2.0)	37 (2.8)	41 (2.6)
Nation	8 (1.1)	10 (0.9)	24 (1.8)	23 (2.1)	22 (1.8)	23 (1.8)	46 (2.5)	45 (2.4)
	189 (4.3)	177 (5.9)	193 (3.4)	185 (4.3)	202 (3.0)	193 (4.0)	204 (2.9)	190 (3.4)
<b>Asian</b>								
Guam	— (—)	8 (3.9)	— (—)	16 (4.2)	— (—)	24 (5.7)	— (—)	52 (6.3)
Nation	— (—)	3 (1.1)	— (—)	16 (3.0)	— (—)	25 (4.2)	— (—)	56 (4.6)
	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	231 (8.1)
<b>Pacific Islander</b>								
Guam	— (—)	11 (0.8)	— (—)	19 (1.0)	— (—)	22 (1.1)	— (—)	48 (1.3)
Nation	— (—)	6 (3.3)	— (—)	21 (5.9)	— (—)	23 (5.2)	— (—)	50 (5.0)
	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)

(continued on next page)



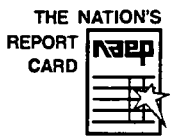


TABLE D8.2 (continued)

Public School Students' Reports on the Number of Books Read Outside of School in the Past Month

1994 Trial State Assessment

	None		One or Two		Three or Four		Five or More	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	9 (1.0)	9 (0.9)	28 (1.9)	19 (1.1)	22 (2.1)	25 (1.5)	40 (1.9)	47 (1.8)
Nation	6 (0.6)	6 (0.6)	22 (1.1)	24 (1.1)	26 (1.3)	24 (1.0)	47 (1.4)	46 (1.1)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>Some ed after HS</b>								
Guam	8 (2.7)	7 (2.4)	29 (4.2)	19 (4.0)	22 (3.7)	23 (4.0)	41 (3.8)	50 (4.7)
Nation	8 (1.3)	7 (1.1)	25 (2.4)	25 (2.4)	25 (2.4)	25 (2.4)	41 (2.5)	43 (2.7)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>HS graduate</b>								
Guam	16 (2.5)	9 (1.5)	28 (2.3)	23 (2.3)	19 (2.2)	18 (2.3)	39 (2.6)	50 (3.3)
Nation	7 (1.1)	10 (1.6)	28 (2.4)	30 (1.9)	24 (2.1)	24 (1.6)	41 (2.8)	36 (1.5)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>HS non-graduate</b>								
Guam	27 (4.1)	11 (3.0)	22 (4.5)	25 (4.6)	16 (3.6)	23 (4.1)	35 (4.5)	41 (4.2)
Nation	13 (2.4)	14 (2.6)	27 (3.4)	29 (3.3)	21 (2.9)	17 (2.2)	40 (3.6)	40 (2.6)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>I don't know</b>								
Guam	13 (1.1)	14 (1.0)	28 (1.4)	22 (1.2)	20 (1.2)	20 (1.5)	39 (1.7)	44 (1.4)
Nation	8 (0.7)	11 (0.9)	28 (1.1)	27 (1.1)	21 (0.8)	22 (1.0)	43 (1.5)	40 (1.4)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>GENDER</b>								
<b>Male</b>								
Guam	15 (1.0)	14 (1.0)	28 (1.4)	23 (1.2)	22 (1.3)	21 (1.3)	35 (1.6)	42 (1.7)
Nation	10 (0.8)	12 (0.9)	27 (1.2)	29 (1.2)	24 (1.0)	22 (0.7)	39 (1.2)	37 (1.0)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>Female</b>								
Guam	10 (1.1)	8 (0.8)	27 (1.2)	19 (1.0)	19 (1.3)	22 (1.1)	44 (1.6)	51 (1.4)
Nation	4 (0.4)	5 (0.4)	23 (1.1)	23 (0.9)	24 (1.1)	25 (0.8)	49 (1.3)	47 (1.2)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	11 (0.6)	== (==)	21 (0.7)	== (==)	22 (0.9)	== (==)	46 (1.1)
Nation	== (==)	161 (3.3)	== (==)	175 (1.5)	== (==)	178 (2.0)	== (==)	191 (1.6)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>Non-Public</b>								
Guam	== (==)	6 (1.6)	== (==)	19 (2.0)	== (==)	22 (1.8)	== (==)	54 (2.1)
Nation	== (==)	5 (0.9)	== (==)	32 (1.6)	== (==)	27 (1.4)	== (==)	35 (1.7)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	
<b>Combined</b>								
Guam	== (==)	10 (0.5)	== (==)	21 (0.7)	== (==)	22 (0.8)	== (==)	47 (1.0)
Nation	== (==)	8 (0.5)	== (==)	27 (0.7)	== (==)	24 (0.5)	== (==)	41 (0.8)
202 (5.2)	202 (3.5)	222 (1.7)	221 (2.0)	227 (2.0)	227 (2.3)	224 (2.2)	224 (1.6)	

-- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D8.3**

*Public School Students' Reports on the Frequency of Taking Books Out of the Library for Their Own Enjoyment*

	Almost Every Day		Once or Twice a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>TOTAL</b>								
Guam	18 (1.0)	21 (0.8)	45 (1.0)	44 (1.1)	15 (0.8)	16 (0.8)	22 (0.9)	19 (0.8)
Nation	174 (2.8)	177 (2.2)	193 (1.8)	191 (1.5)	177 (2.4)	180 (3.3)	175 (2.0)	171 (3.1)
	211 (1.7)	207 (1.9)	219 (1.2)	220 (1.2)	219 (1.4)	215 (1.7)	202 (1.8)	196 (2.1)
<b>RACE/ ETHNICITY</b>								
<b>White</b>								
Guam	16 (2.4)	16 (2.7)	44 (3.4)	43 (3.6)	19 (2.4)	22 (2.7)	21 (2.3)	18 (3.6)
Nation	13 (0.7)	15 (0.6)	50 (1.1)	49 (0.9)	24 (1.1)	22 (0.8)	14 (0.8)	14 (0.7)
	221 (2.1)	218 (2.6)	226 (1.5)	228 (1.3)	226 (1.8)	223 (1.8)	211 (2.3)	210 (2.5)
<b>Black</b>								
Guam	17 (4.8)	24 (5.9)	38 (6.5)	42 (4.6)	19 (4.0)	13 (4.2)	25 (5.5)	21 (4.4)
Nation	20 (1.3)	20 (1.2)	42 (1.7)	41 (1.6)	17 (1.3)	18 (1.4)	20 (1.6)	20 (1.6)
	192 (2.8)	184 (3.1)	196 (2.4)	194 (2.0)	195 (3.4)	193 (3.3)	183 (3.3)	172 (2.6)
<b>Hispanic</b>								
Guam	20 (1.9)	25 (1.8)	43 (2.4)	40 (2.6)	16 (1.6)	14 (2.0)	21 (2.1)	22 (2.0)
Nation	19 (1.6)	19 (1.5)	47 (1.6)	40 (1.8)	17 (1.2)	19 (1.4)	17 (1.5)	21 (1.6)
	200 (4.3)	188 (4.1)	204 (2.8)	196 (2.8)	200 (3.4)	188 (4.4)	191 (3.4)	181 (6.1)
<b>Asian</b>								
Guam	— (—)	12 (4.1)	— (—)	52 (8.3)	— (—)	20 (5.4)	— (—)	16 (5.5)
Nation	— (—)	14 (3.0)	— (—)	54 (4.6)	— (—)	21 (3.3)	— (—)	10 (2.7)
	— (—)	— (—)	— (—)	237 (6.5)	— (—)	— (—)	— (—)	— (—)
<b>Pacific Islander</b>								
Guam	— (—)	21 (1.2)	— (—)	45 (1.5)	— (—)	16 (1.0)	— (—)	18 (0.9)
Nation	— (—)	180 (2.7)	— (—)	192 (1.7)	— (—)	178 (4.3)	— (—)	173 (3.7)
	— (—)	8 (3.9)	— (—)	45 (7.2)	— (—)	27 (6.9)	— (—)	20 (5.1)
	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)

(continued on next page)





TABLE D8.3 (continued)

*Public School Students' Reports on the Frequency of Taking Books Out of the Library for Their Own Enjoyment*

	Almost Every Day		Once or Twice a Week		Once or Twice a Month		Never or Hardly Ever	
	1992	1994	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>								
<b>PARENTS' EDUCATION</b>								
<b>College graduate</b>								
Guam	19 (1.9)	23 (1.3)	46 (1.8)	40 (1.7)	15 (1.3)	17 (1.4)	20 (1.6)	20 (1.4)
Nation	171 (3.9)	183 (3.8)	195 (2.7)	193 (2.2)	176 (4.6)	183 (4.3)	173 (4.3)	178 (4.3)
	16 (1.1)	17 (0.8)	48 (1.5)	48 (1.2)	23 (1.3)	22 (1.1)	12 (0.9)	13 (0.8)
	217 (2.7)	217 (2.7)	228 (2.0)	229 (1.7)	228 (1.9)	223 (2.3)	209 (2.5)	207 (3.0)
<b>Some ed after HS</b>								
Guam	13 (3.4)	17 (3.2)	52 (4.4)	50 (4.2)	20 (3.5)	19 (3.2)	15 (3.0)	14 (3.3)
Nation	13 (2.0)	15 (1.7)	56 (2.8)	50 (3.0)	21 (2.4)	21 (2.1)	11 (1.8)	13 (1.8)
	*** (***)	*** (***)	*** (***)	200 (5.8)	*** (***)	*** (***)	*** (***)	*** (***)
	*** (***)	216 (5.8)	222 (2.5)	226 (2.4)	228 (6.0)	222 (4.5)	*** (***)	*** (***)
<b>HS graduate</b>								
Guam	17 (2.1)	21 (2.3)	42 (2.7)	42 (2.9)	17 (2.3)	18 (2.4)	23 (2.2)	19 (2.1)
Nation	16 (1.6)	17 (1.4)	47 (2.4)	47 (1.5)	21 (2.0)	19 (1.8)	16 (1.9)	18 (1.5)
	*** (***)	*** (***)	191 (3.8)	186 (4.0)	*** (***)	*** (***)	175 (4.7)	*** (***)
	206 (4.8)	204 (4.1)	216 (2.4)	215 (2.7)	214 (2.7)	205 (3.1)	201 (4.6)	193 (3.5)
<b>HS non-graduate</b>								
Guam	25 (4.5)	18 (3.2)	38 (4.6)	45 (5.3)	15 (3.5)	20 (4.1)	22 (4.6)	19 (3.5)
Nation	19 (2.9)	18 (2.2)	40 (3.5)	46 (3.6)	18 (2.4)	19 (3.1)	22 (2.6)	17 (2.8)
	*** (***)	*** (***)	203 (4.3)	194 (4.9)	*** (***)	*** (***)	*** (***)	*** (***)
<b>I don't know</b>								
Guam	17 (1.3)	21 (1.4)	46 (1.6)	46 (1.9)	13 (1.2)	14 (1.3)	24 (1.4)	19 (1.5)
Nation	175 (3.5)	174 (2.7)	191 (2.3)	192 (2.2)	175 (5.3)	181 (4.5)	178 (3.0)	169 (3.1)
	13 (0.9)	14 (1.0)	48 (1.1)	45 (1.2)	21 (1.2)	21 (1.2)	18 (1.0)	20 (1.2)
	206 (2.9)	193 (2.9)	213 (1.9)	213 (1.7)	212 (2.1)	211 (2.3)	199 (2.5)	193 (3.2)
<b>GENDER</b>								
<b>Male</b>								
Guam	18 (1.3)	20 (1.1)	43 (1.5)	43 (1.5)	16 (1.0)	18 (1.2)	22 (1.3)	20 (1.1)
Nation	165 (3.3)	188 (3.3)	186 (2.8)	182 (1.7)	171 (3.5)	173 (4.4)	170 (3.1)	163 (3.9)
	13 (0.7)	15 (0.7)	46 (1.1)	44 (1.1)	24 (1.2)	23 (1.0)	16 (0.9)	19 (1.0)
	206 (2.8)	199 (2.6)	215 (1.6)	216 (1.6)	216 (1.7)	212 (2.4)	200 (2.3)	193 (2.2)
<b>Female</b>								
Guam	17 (1.3)	22 (1.1)	47 (1.7)	45 (1.8)	14 (1.2)	14 (1.1)	22 (1.5)	18 (1.1)
Nation	164 (3.3)	185 (3.2)	199 (2.0)	200 (2.3)	183 (3.3)	188 (3.3)	179 (3.3)	180 (3.8)
	16 (1.0)	17 (0.7)	51 (1.2)	51 (0.9)	19 (1.0)	19 (0.9)	14 (0.9)	13 (0.7)
	216 (1.9)	213 (2.4)	223 (1.5)	224 (1.4)	222 (2.2)	219 (2.1)	205 (2.3)	205 (3.4)
<b>SCHOOL TYPE</b>								
<b>Public</b>								
Guam	== (==)	21 (0.8)	== (==)	44 (1.1)	== (==)	16 (0.8)	== (==)	19 (0.8)
Nation	== (==)	177 (2.2)	== (==)	191 (1.5)	== (==)	180 (3.3)	== (==)	171 (3.1)
	== (==)	16 (0.5)	== (==)	47 (0.8)	== (==)	21 (0.8)	== (==)	15 (0.7)
	== (==)	207 (1.9)	== (==)	220 (1.2)	== (==)	215 (1.7)	== (==)	198 (2.1)
<b>Non-Public</b>								
Guam	== (==)	17 (1.6)	== (==)	52 (3.4)	== (==)	15 (1.9)	== (==)	17 (2.1)
Nation	== (==)	209 (3.5)	== (==)	221 (3.6)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	10 (1.3)	== (==)	48 (2.6)	== (==)	29 (1.9)	== (==)	13 (1.6)
	== (==)	224 (5.0)	== (==)	234 (2.7)	== (==)	233 (2.4)	== (==)	222 (4.8)
<b>Combined</b>								
Guam	== (==)	20 (0.7)	== (==)	45 (1.1)	== (==)	16 (0.7)	== (==)	19 (0.7)
Nation	== (==)	181 (2.1)	== (==)	198 (1.5)	== (==)	*** (***)	== (==)	*** (***)
	== (==)	15 (0.5)	== (==)	47 (0.7)	== (==)	22 (0.7)	== (==)	16 (0.6)
	== (==)	208 (1.7)	== (==)	222 (1.1)	== (==)	218 (1.5)	== (==)	200 (2.0)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D8.4**

*Public School Students' Reports on Types of Reading Materials in the Home*

1994 Trial State Assessment

	Zero to Two Types		Three Types		Four Types	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	54 (1.1)	52 (1.1)	30 (1.1)	29 (0.9)	16 (0.8)	19 (0.9)
Nation	179 (1.9)	174 (1.5)	186 (2.1)	186 (2.3)	192 (2.8)	197 (2.4)
	33 (0.9)	30 (0.9)	32 (0.7)	34 (0.7)	36 (1.0)	36 (0.9)
	203 (0.9)	196 (1.5) <	217 (1.5)	214 (1.3)	224 (1.4)	225 (1.2)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	50 (2.8)	43 (3.4)	32 (3.1)	35 (3.3)	19 (2.4)	23 (3.5)
Nation	193 (3.6)	183 (7.3)	202 (5.6)	192 (6.2)	*** (***)	*** (***)
	26 (1.0)	24 (1.0)	33 (0.8)	35 (0.9)	41 (1.3)	40 (1.2)
	213 (1.5)	208 (1.8)	225 (1.9)	222 (1.8)	228 (1.6)	233 (1.5)
<b>Black</b>						
Guam	57 (7.0)	50 (5.9)	27 (5.5)	24 (3.6)	16 (4.5)	26 (5.0)
Nation	49 (2.2)	39 (2.4) <	28 (1.6)	32 (1.5)	23 (2.0)	28 (2.0)
	187 (2.4)	179 (2.0)	193 (2.7)	186 (2.4)	201 (2.4)	195 (2.8)
<b>Hispanic</b>						
Guam	61 (2.8)	58 (2.8)	26 (2.4)	27 (2.2)	13 (2.1)	16 (2.0)
Nation	161 (3.8)	164 (2.5)	168 (5.5)	175 (4.5)	*** (***)	*** (***)
	47 (1.9)	46 (2.6)	32 (2.1)	28 (2.1)	21 (1.8)	26 (1.7)
	190 (2.5)	176 (3.5) <	205 (2.8)	198 (3.1)	213 (3.7)	201 (3.7)
<b>Asian</b>						
Guam	— (—)	60 (6.6)	— (—)	26 (5.3)	— (—)	14 (3.4)
Nation	— (—)	35 (5.5)	— (—)	31 (4.2)	— (—)	33 (5.0)
	— (—)	216 (8.7)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	52 (1.3)	— (—)	29 (1.1)	— (—)	19 (1.2)
Nation	— (—)	176 (1.6)	— (—)	187 (2.1)	— (—)	195 (3.0)
	— (—)	43 (5.7)	— (—)	26 (5.8)	— (—)	31 (5.7)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D8.4 (continued)

Public School Students' Reports on Types of Reading Materials in the Home

1994 Trial State Assessment

	Zero to Two Types		Three Types		Four Types	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	46 (2.2)	43 (1.8)	32 (2.0)	31 (1.7)	22 (1.7)	26 (1.6)
Nation	178 (3.5)	174 (2.8)	187 (3.0)	188 (3.6)	189 (3.9)	199 (3.5)
	21 (1.2)	18 (1.0)	30 (1.0)	33 (1.2)	49 (1.2)	49 (1.5)
	208 (2.2)	205 (2.8)	223 (2.1)	220 (1.8)	230 (1.8)	230 (1.5)
<b>Some ed after HS</b>						
Guam	43 (5.1)	48 (4.2)	40 (4.4)	31 (3.9)	17 (3.3)	21 (3.1)
Nation	*** (***)	184 (5.8)	*** (***)	*** (***)	*** (***)	*** (***)
	32 (2.5)	24 (3.3)	32 (2.3)	38 (2.7)	36 (2.4)	38 (2.6)
	212 (2.5)	211 (4.1)	222 (3.4)	221 (3.4)	230 (3.5)	230 (2.7)
<b>HS graduate</b>						
Guam	53 (2.8)	54 (3.2)	27 (3.0)	29 (2.7)	20 (2.4)	17 (2.2)
Nation	178 (4.3)	170 (4.3)	179 (6.4)	176 (4.8)	*** (***)	*** (***)
	36 (2.2)	33 (2.0)	32 (2.0)	39 (1.7)	32 (2.5)	28 (1.9)
	204 (2.5)	195 (3.0)	214 (3.6)	212 (3.2)	215 (2.3)	212 (3.2)
<b>HS non-graduate</b>						
Guam	60 (5.5)	67 (4.4)	29 (5.5)	23 (4.3)	12 (2.9)	10 (3.1)
Nation	*** (***)	163 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)
	63 (4.0)	58 (3.3)	26 (3.2)	27 (2.2)	12 (2.3)	15 (3.1)
	192 (3.2)	181 (4.6)	202 (6.2)	193 (6.0)	*** (***)	*** (***)
<b>I don't know</b>						
Guam	61 (1.8)	58 (1.6)	28 (1.6)	27 (1.5)	11 (1.1)	15 (1.4)
Nation	180 (2.4)	175 (1.9)	185 (3.3)	187 (3.0)	193 (4.5)	196 (4.1)
	40 (1.5)	41 (1.3)	34 (1.1)	33 (1.1)	26 (1.4)	27 (1.4)
	200 (1.6)	193 (1.9)	215 (2.3)	209 (1.9)	216 (2.1)	218 (1.8)
<b>GENDER</b>						
<b>Male</b>						
Guam	54 (1.6)	53 (1.5)	30 (1.4)	29 (1.5)	15 (1.1)	18 (1.1)
Nation	172 (2.6)	167 (1.8)	179 (2.8)	175 (2.7)	185 (3.7)	188 (3.2)
	31 (1.1)	28 (1.0)	32 (1.1)	34 (1.0)	38 (1.4)	38 (1.2)
	198 (1.7)	188 (1.8) <	213 (2.0)	208 (1.9)	221 (1.7)	220 (1.5)
<b>Female</b>						
Guam	53 (1.7)	51 (1.5)	29 (1.5)	29 (1.3)	18 (1.4)	20 (1.3)
Nation	187 (2.0)	182 (2.2)	194 (2.8)	197 (2.8)	198 (3.4)	205 (3.1)
	34 (1.3)	32 (1.3)	32 (0.9)	33 (1.0)	34 (1.1)	35 (1.2)
	207 (1.2)	203 (1.8)	222 (1.8)	221 (1.4)	228 (1.7)	231 (1.6)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	52 (1.1)	== (==)	29 (0.9)	== (==)	19 (0.9)
Nation	== (==)	174 (1.5)	== (==)	186 (2.3)	== (==)	197 (2.4)
	== (==)	30 (0.9)	== (==)	34 (0.7)	== (==)	36 (0.9)
	== (==)	196 (1.5)	== (==)	214 (1.3)	== (==)	225 (1.2)
<b>Non-Public</b>						
Guam	== (==)	29 (2.2)	== (==)	40 (2.6)	== (==)	31 (2.0)
Nation	== (==)	202 (4.3)	== (==)	216 (2.5)	== (==)	222 (4.0)
	== (==)	16 (1.6)	== (==)	34 (1.7)	== (==)	49 (2.3)
	== (==)	220 (4.3)	== (==)	229 (3.5)	== (==)	236 (2.2)
<b>Combined</b>						
Guam	== (==)	49 (1.0)	== (==)	31 (0.8)	== (==)	21 (0.8)
Nation	== (==)	176 (1.4)	== (==)	192 (1.8)	== (==)	202 (2.2)
	== (==)	29 (0.9)	== (==)	34 (0.7)	== (==)	38 (0.8)
	== (==)	197 (1.4)	== (==)	216 (1.2)	== (==)	227 (1.1)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

=== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. ! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic. \*\*\* Sample size is insufficient to permit a reliable estimate.



**TABLE D8.5**

*Public School Students' Reports on Talking With Friends and Family About Reading*

1994 Trial State Assessment

	Almost Every Day		Once or Twice a Week		Less Than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	29 (1.0)	31 (0.8)	32 (1.1)	32 (1.0)	39 (1.0)	37 (1.1)
Nation	181 (2.1)	181 (2.2)	187 (2.2)	185 (1.8)	181 (1.7)	181 (1.9)
	27 (0.7)	28 (0.7)	35 (1.0)	35 (0.7)	38 (1.2)	37 (0.8)
	213 (1.5)	211 (1.4)	222 (1.2)	221 (1.4)	210 (1.3)	208 (1.5)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	30 (3.3)	29 (3.9)	29 (3.0)	33 (2.8)	41 (3.5)	38 (3.9)
Nation	187 (4.5)	*** (***)	205 (5.5)	190 (6.4)	194 (4.4)	198 (5.5)
	24 (0.8)	25 (0.9)	38 (1.3)	37 (0.8)	39 (1.5)	38 (1.1)
	224 (1.9)	223 (1.7)	230 (1.4)	230 (1.7)	217 (1.6)	216 (1.7)
<b>Black</b>						
Guam	39 (6.2)	29 (5.4)	15 (4.1)	32 (5.9)	46 (6.3)	39 (6.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
	36 (1.6)	38 (1.7)	27 (1.6)	31 (1.8)	36 (1.7)	31 (1.4)
	193 (2.0)	187 (2.5)	196 (3.7)	192 (2.1)	190 (2.6)	183 (2.4)
<b>Hispanic</b>						
Guam	30 (2.4)	30 (2.0)	33 (3.1)	35 (2.3)	37 (2.6)	34 (2.3)
Nation	158 (5.5)	171 (4.6)	174 (4.8)	178 (3.8)	164 (4.9)	166 (3.9)
	31 (1.9)	33 (1.7)	34 (1.6)	29 (1.4)	35 (1.9)	38 (1.9)
	199 (2.4)	189 (3.7)	204 (3.2)	192 (4.1)	196 (2.6)	187 (3.4)
<b>Asian</b>						
Guam	-- (-)	16 (4.2)	-- (-)	43 (6.1)	-- (-)	40 (5.7)
Nation	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)
	-- (-)	18 (4.4)	-- (-)	43 (6.3)	-- (-)	39 (4.3)
	-- (-)	*** (***)	-- (-)	239 (7.6)	-- (-)	222 (7.8)
<b>Pacific Islander</b>						
Guam	-- (-)	32 (1.3)	-- (-)	31 (1.4)	-- (-)	38 (1.3)
Nation	-- (-)	182 (2.4)	-- (-)	186 (2.5)	-- (-)	183 (2.4)
	-- (-)	23 (6.3)	-- (-)	32 (6.3)	-- (-)	44 (7.5)
	-- (-)	*** (***)	-- (-)	*** (***)	-- (-)	*** (***)

(continued on next page)





TABLE D8.5 (continued)

Public School Students' Reports on Talking With Friends and Family About Reading

1994 Trial State Assessment

	Almost Every Day		Once or Twice a Week		Less Than Weekly	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	28 (1.7)	33 (1.7)	31 (1.9)	33 (1.8)	40 (1.7)	34 (1.8)
Nation	181 (3.8)	184 (3.2)	189 (3.3)	190 (3.0)	181 (2.8)	183 (3.4)
	27 (1.0)	30 (0.9)	40 (1.5)	38 (1.1)	33 (1.6)	33 (1.1)
	221 (2.2)	219 (2.0)	230 (2.0)	231 (1.7)	218 (2.2)	217 (2.1)
<b>Some ed after HS</b>						
Guam	28 (3.4)	25 (3.5)	30 (3.7)	42 (4.0)	42 (3.8)	32 (3.9)
Nation	28 (2.6)	28 (2.5)	36 (2.0)	41 (2.6)	36 (2.2)	31 (2.2)
	221 (4.3)	215 (4.1)	228 (3.2)	227 (3.0)	216 (3.2)	223 (3.3)
<b>HS graduate</b>						
Guam	32 (2.9)	34 (2.9)	33 (3.0)	32 (2.9)	36 (2.6)	33 (3.0)
Nation	178 (4.8)	171 (4.4)	184 (5.4)	181 (4.8)	183 (4.9)	179 (5.0)
	31 (1.9)	32 (2.2)	31 (2.2)	32 (2.0)	38 (2.5)	36 (2.0)
	210 (3.7)	207 (3.8)	219 (3.4)	212 (2.9)	207 (2.7)	205 (2.5)
<b>HS non-graduate</b>						
Guam	32 (4.2)	24 (5.2)	30 (4.6)	44 (5.2)	38 (5.5)	32 (5.1)
Nation	32 (3.8)	27 (3.2)	27 (2.9)	27 (2.8)	41 (4.1)	46 (3.4)
	201 (4.8)	191 (6.0)	200 (4.9)	192 (7.2)	195 (4.6)	184 (5.9)
<b>I don't know</b>						
Guam	28 (1.5)	29 (1.4)	32 (1.6)	28 (1.5)	40 (1.5)	43 (1.7)
Nation	181 (2.9)	182 (3.0)	187 (3.4)	181 (3.9)	179 (2.5)	182 (2.2)
	24 (1.1)	25 (1.1)	33 (1.5)	33 (1.0)	43 (1.4)	42 (1.5)
	206 (2.7)	203 (2.2)	215 (1.7)	212 (2.0)	207 (1.5)	202 (1.9)
<b>GENDER</b>						
<b>Male</b>						
Guam	27 (1.4)	29 (1.2)	29 (1.5)	32 (1.6)	44 (1.2)	39 (1.7)
Nation	174 (3.0)	173 (3.2)	180 (2.8)	176 (2.6)	175 (2.0)	173 (2.2)
	24 (1.0)	25 (0.9)	33 (1.6)	32 (0.8)	43 (1.7)	42 (1.1)
	209 (2.1)	205 (1.9)	219 (1.7)	217 (1.8)	208 (1.7)	203 (1.9)
<b>Female</b>						
Guam	31 (1.3)	33 (1.2)	34 (1.4)	32 (1.4)	35 (1.7)	35 (1.5)
Nation	187 (2.2)	188 (2.4)	194 (2.6)	194 (2.3)	190 (2.4)	191 (2.8)
	29 (1.0)	31 (1.0)	38 (1.0)	38 (0.9)	33 (1.0)	31 (1.0)
	217 (1.5)	215 (1.9)	226 (1.3)	224 (1.7)	214 (1.5)	215 (1.6)
<b>SCHOOL TYPE</b>						
<b>Public</b>						
Guam	== (==)	31 (0.8)	== (==)	32 (1.0)	== (==)	37 (1.1)
Nation	== (==)	181 (2.2)	== (==)	185 (1.8)	== (==)	181 (1.9)
	== (==)	28 (0.7)	== (==)	35 (0.7)	== (==)	37 (0.8)
	== (==)	211 (1.4)	== (==)	221 (1.4)	== (==)	208 (1.5)
<b>Non-Public</b>						
Guam	== (==)	27 (2.5)	== (==)	39 (2.7)	== (==)	35 (3.1)
Nation	== (==)	203 (3.2)	== (==)	224 (4.7)	== (==)	209 (3.7)
	== (==)	26 (1.3)	== (==)	40 (1.4)	== (==)	33 (1.6)
	== (==)	231 (2.9)	== (==)	236 (2.7)	== (==)	225 (3.4)
<b>Combined</b>						
Guam	== (==)	30 (0.8)	== (==)	33 (1.0)	== (==)	37 (1.1)
Nation	== (==)	184 (2.0)	== (==)	192 (1.8)	== (==)	185 (1.8)
	== (==)	28 (0.6)	== (==)	36 (0.6)	== (==)	36 (0.7)
	== (==)	213 (1.3)	== (==)	223 (1.2)	== (==)	210 (1.5)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



TABLE D8.6

*Public School Students' Reports on the Amount of  
Time Spent Watching Television Each Day*

	One Hour or Less		Two Hours		Three Hours	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>TOTAL</b>						
Guam	31 (1.1)	28 (0.9)	19 (1.0)	16 (0.8)	13 (0.7)	15 (0.8)
Nation	178 (2.1)	181 (2.2)	184 (2.0)	185 (3.0)	192 (2.8)	186 (2.4)
	219 (1.9)	217 (2.2)	222 (1.6)	220 (1.4)	222 (1.3)	219 (1.6)
<b>RACE/ ETHNICITY</b>						
<b>White</b>						
Guam	25 (2.4)	32 (3.3)	18 (2.5)	13 (1.9)	19 (3.0)	17 (2.2)
Nation	19 (1.1)	21 (1.0)	23 (1.2)	24 (0.7)	21 (1.0)	18 (0.7)
	225 (2.2)	226 (2.1)	229 (1.6)	227 (1.5)	227 (1.5)	226 (1.8)
<b>Black</b>						
Guam	31 (4.5)	31 (6.4)	16 (4.2)	14 (3.9)	14 (4.0)	17 (3.8)
Nation	12 (1.4)	10 (1.0)	11 (1.0)	11 (1.0)	12 (1.2)	10 (1.0)
	195 (4.0)	186 (4.2)	191 (3.7)	190 (4.0)	198 (4.9)	189 (3.6)
<b>Hispanic</b>						
Guam	36 (2.6)	30 (2.2)	18 (2.0)	17 (2.0)	12 (1.7)	15 (1.8)
Nation	16 (1.2)	19 (1.5)	20 (1.8)	16 (1.6)	14 (1.4)	14 (1.3)
	198 (4.6)	187 (4.9)	204 (4.0)	190 (4.3)	204 (3.7)	198 (5.1)
<b>Asian</b>						
Guam	— (—)	30 (4.4)	— (—)	19 (4.4)	— (—)	14 (4.1)
Nation	— (—)	28 (4.1)	— (—)	22 (3.8)	— (—)	18 (3.1)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>						
Guam	— (—)	27 (1.1)	— (—)	17 (1.0)	— (—)	14 (1.0)
Nation	— (—)	181 (2.7)	— (—)	185 (3.6)	— (—)	190 (3.2)
	— (—)	15 (3.7)	— (—)	17 (4.4)	— (—)	11 (2.7)
	— (—)	*** (***)	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D8.6 (continued)

*Public School Students' Reports on the Amount of  
 Time Spent Watching Television Each Day*

1994 Trial State Assessment

	One Hour or Less		Two Hours		Three Hours	
	1992	1994	1992	1994	1992	1994
<b>Percentage and Proficiency</b>						
<b>PARENTS' EDUCATION</b>						
<b>College graduate</b>						
Guam	30 (2.1)	26 (1.2)	19 (1.7)	18 (1.2)	13 (1.2)	15 (1.4)
Nation	179 (3.3)	189 (3.8)	186 (4.2)	186 (4.0)	184 (5.4)	187 (3.8)
<b>Some ed after HS</b>						
Guam	20 (1.3)	21 (1.3)	22 (1.2)	22 (1.1)	19 (1.4)	17 (0.9)
Nation	231 (2.9)	232 (2.7)	230 (2.3)	229 (1.8)	231 (2.2)	229 (2.2)
<b>HS graduate</b>						
Guam	20 (3.5)	33 (3.6)	19 (3.2)	17 (4.2)	12 (3.6)	15 (3.0)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
<b>HS non-graduate</b>						
Guam	14 (1.9)	15 (2.0)	26 (2.6)	20 (2.2)	19 (2.0)	22 (2.3)
Nation	226 (5.1)	222 (6.2)	225 (4.3)	225 (3.9)	228 (3.4)	227 (3.9)
<b>I don't know</b>						
Guam	35 (2.4)	29 (2.8)	20 (2.3)	15 (2.1)	13 (1.8)	13 (1.8)
Nation	175 (5.6)	175 (6.4)	*** (***)	*** (***)	*** (***)	*** (***)
<b>Male</b>						
Guam	14 (1.5)	15 (1.5)	16 (1.9)	20 (1.5)	23 (2.1)	15 (1.5)
Nation	209 (4.3)	206 (4.1)	218 (4.0)	215 (3.7)	217 (3.3)	213 (3.3)
<b>Female</b>						
Guam	33 (4.7)	27 (4.5)	13 (3.5)	19 (4.5)	14 (3.1)	17 (3.5)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
<b>Gender</b>						
Guam	15 (3.1)	16 (2.7)	17 (3.1)	18 (2.9)	19 (2.8)	16 (2.6)
Nation	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
<b>Male</b>						
Guam	31 (1.9)	30 (1.6)	19 (1.3)	16 (1.2)	14 (1.1)	15 (1.3)
Nation	178 (3.1)	177 (2.8)	182 (3.3)	186 (4.3)	194 (3.7)	186 (3.5)
<b>Female</b>						
Guam	18 (0.9)	18 (0.9)	20 (1.3)	20 (1.0)	17 (1.0)	16 (0.8)
Nation	209 (2.6)	205 (2.4)	216 (2.0)	213 (2.3)	214 (2.3)	210 (3.1)
<b>Male</b>						
Guam	28 (1.3)	24 (1.2)	19 (1.2)	15 (1.0)	13 (0.9)	15 (1.2)
Nation	167 (3.2)	170 (3.4)	179 (2.8)	177 (4.1)	183 (3.8)	179 (3.7)
<b>Female</b>						
Guam	17 (1.0)	16 (0.8)	20 (1.1)	19 (0.8)	19 (1.0)	15 (0.6) <
Nation	215 (2.6)	214 (3.1)	218 (2.1)	216 (1.9)	218 (1.8)	213 (2.5)
<b>Public</b>						
Guam	34 (1.6)	33 (1.4)	19 (1.5)	18 (1.3)	14 (1.1)	14 (1.1)
Nation	187 (2.4)	188 (2.7)	189 (2.8)	191 (3.5)	200 (4.3)	194 (3.6)
<b>Non-Public</b>						
Guam	19 (1.3)	21 (1.1)	22 (1.0)	22 (0.9)	19 (1.1)	17 (0.9)
Nation	223 (2.2)	221 (2.6)	226 (2.0)	224 (1.7)	226 (1.6)	225 (1.8)
<b>Combined</b>						
Guam	== (==)	28 (0.9)	== (==)	16 (0.8)	== (==)	15 (0.8)
Nation	== (==)	181 (2.2)	== (==)	185 (3.0)	== (==)	186 (2.4)
<b>Public</b>						
Guam	== (==)	19 (0.7)	== (==)	21 (0.6)	== (==)	16 (0.5)
Nation	== (==)	217 (2.2)	== (==)	220 (1.4)	== (==)	219 (1.6)
<b>Non-Public</b>						
Guam	== (==)	31 (2.6)	== (==)	24 (2.9)	== (==)	12 (1.9)
Nation	== (==)	213 (2.6)	== (==)	213 (7.3)	== (==)	*** (***)
<b>Combined</b>						
Guam	== (==)	25 (1.9)	== (==)	23 (1.5)	== (==)	18 (1.1)
Nation	== (==)	236 (3.4)	== (==)	238 (3.0)	== (==)	234 (3.7)
<b>Public</b>						
Guam	== (==)	29 (0.8)	== (==)	18 (0.8)	== (==)	14 (0.7)
Nation	== (==)	186 (1.9)	== (==)	191 (2.9)	== (==)	*** (***)
<b>Non-Public</b>						
Guam	== (==)	19 (0.7)	== (==)	21 (0.6)	== (==)	17 (0.5)
Nation	== (==)	220 (1.9)	== (==)	222 (1.3)	== (==)	221 (1.6)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within  $\pm 2$  standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.



1994 Trial State Assessment

**TABLE D8.6 (continued)**

*Public School Students' Reports on the Amount of Time Spent Watching Television Each Day*

	Four to Five Hours		Six Hours or More	
	1992	1994	1992	1994
<b>Percentage and Proficiency</b>				
<b><u>TOTAL</u></b>				
Guam	17 (0.7)	18 (0.9)	20 (0.9)	23 (0.8)
Nation	190 (2.0)	186 (2.3)	176 (2.2)	173 (2.1)
	22 (0.9)	22 (0.8)	21 (0.8)	22 (0.7)
	215 (1.5)	215 (1.8)	198 (1.7)	193 (1.6)
<b><u>RACE/ ETHNICITY</u></b>				
<b>White</b>				
Guam	18 (2.2)	18 (2.5)	21 (2.9)	21 (3.3)
	*** (***)	*** (***)	*** (***)	*** (***)
Nation	22 (1.0)	22 (1.0)	14 (0.9)	15 (0.9)
	221 (1.9)	224 (2.0)	207 (2.0)	206 (2.4)
<b>Black</b>				
Guam	15 (3.4)	20 (4.2)	24 (4.2)	18 (4.5)
	*** (***)	*** (***)	*** (***)	*** (***)
Nation	19 (1.4)	21 (1.8)	45 (1.9)	47 (1.8)
	197 (2.7)	190 (3.7)	188 (2.4)	182 (2.1)
<b>Hispanic</b>				
Guam	12 (1.3)	18 (1.8)	22 (2.1)	20 (2.1)
	*** (***)	174 (6.1)	158 (5.5)	163 (5.1)
Nation	21 (1.6)	23 (1.5)	28 (1.8)	28 (1.6)
	200 (3.1)	195 (4.6)	193 (3.7)	177 (3.2) <
<b>Asian</b>				
Guam	— (—)	14 (4.3)	— (—)	22 (4.1)
	— (—)	*** (***)	— (—)	*** (***)
Nation	— (—)	19 (3.1)	— (—)	12 (4.0)
	— (—)	*** (***)	— (—)	*** (***)
<b>Pacific Islander</b>				
Guam	— (—)	18 (1.0)	— (—)	24 (1.0)
	— (—)	189 (3.0)	— (—)	175 (2.3)
Nation	— (—)	29 (4.8)	— (—)	28 (6.5)
	— (—)	*** (***)	— (—)	*** (***)

(continued on next page)





TABLE D8.6 (continued)

Public School Students' Reports on the Amount of Time Spent Watching Television Each Day

1994 Trial State Assessment

	Four to Five Hours		Six Hours or More	
	1992	1994	1992	1994
<b>Percentage and Proficiency</b>				
<b>PARENTS' EDUCATION</b>				
<b>College graduate</b>				
Guam	17 (1.4)	18 (1.5)	21 (1.4)	24 (1.5)
Nation	190 (4.5)	190 (3.7)	180 (4.9)	173 (3.8)
Guam	19 (1.0)	21 (1.1)	19 (1.2)	19 (0.9)
Nation	221 (2.6)	221 (2.6)	201 (2.4)	199 (2.0)
<b>Some ed after HS</b>				
Guam	24 (4.0)	22 (3.6)	25 (3.9)	12 (2.4)
Nation	24 (2.3)	25 (2.6)	18 (2.3)	19 (1.8)
Guam	225 (4.1)	228 (3.8)	201 (3.9)	204 (5.0)
<b>HS graduate</b>				
Guam	15 (1.9)	17 (2.6)	17 (2.1)	26 (2.3)
Nation	28 (1.9)	24 (1.8)	19 (1.9)	26 (1.7)
Guam	212 (3.0)	211 (4.2)	196 (4.0)	192 (3.7)
<b>HS non-graduate</b>				
Guam	20 (3.9)	14 (3.1)	19 (3.5)	24 (4.1)
Nation	18 (2.7)	23 (2.6)	31 (3.8)	27 (2.7)
Guam	190 (5.2)	179 (8.9)	179 (8.9)	179 (8.9)
<b>I don't know</b>				
Guam	16 (1.3)	18 (1.3)	20 (1.3)	22 (1.4)
Nation	189 (3.1)	186 (2.6)	172 (3.8)	176 (3.9)
Guam	22 (1.4)	22 (1.2)	22 (1.0)	24 (1.1)
Nation	210 (2.0)	210 (2.2)	196 (2.2)	188 (2.5)
<b>GENDER</b>				
<b>Male</b>				
Guam	17 (1.1)	19 (1.0)	24 (1.5)	27 (1.2)
Nation	180 (3.8)	174 (3.2)	175 (2.9)	168 (2.4)
Guam	22 (1.0)	23 (1.0)	22 (1.0)	26 (1.0)
Nation	213 (1.8)	210 (2.1)	195 (1.9)	190 (2.0)
<b>Female</b>				
Guam	17 (1.2)	17 (1.3)	16 (1.0)	18 (0.9)
Nation	200 (3.5)	199 (3.4)	177 (3.4)	181 (4.0)
Guam	21 (1.2)	21 (1.1)	19 (1.0)	18 (0.9)
Nation	218 (1.9)	221 (2.3)	201 (2.3)	197 (2.2)
<b>SCHOOL TYPE</b>				
<b>Public</b>				
Guam	== (==)	18 (0.9)	== (==)	23 (0.8)
Nation	== (==)	186 (2.3)	== (==)	173 (2.1)
Guam	== (==)	22 (0.8)	== (==)	22 (0.7)
Nation	== (==)	215 (1.8)	== (==)	193 (1.6)
<b>Non-Public</b>				
Guam	== (==)	21 (2.1)	== (==)	12 (2.1)
Nation	== (==)	221 (3.6)	== (==)	12 (2.1)
Guam	== (==)	20 (1.5)	== (==)	14 (2.5)
Nation	== (==)	226 (3.7)	== (==)	216 (5.2)
<b>Combined</b>				
Guam	== (==)	18 (0.8)	== (==)	21 (0.7)
Nation	== (==)	182 (2.1)	== (==)	173 (2.1)
Guam	== (==)	22 (0.7)	== (==)	21 (0.7)
Nation	== (==)	216 (1.7)	== (==)	194 (1.4)

--- Separate statistics for Asian and Pacific Islander students were not available in 1992.

== School type results are not presented for 1992 since state-level non-public school data were not collected.

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). If the notation > (<) appears, it signifies that the value for public school students in 1994 was significantly higher (lower) than the value for 1992 at about the 95 percent confidence level. \*\*\* Sample size is insufficient to permit a reliable estimate.

## ACKNOWLEDGMENTS

A very special thank you is due to the many individuals who provided invaluable assistance in the production of this report. Literally a cast of thousands was involved in the development, administration, scoring, analysis, writing, reviewing, and reporting of the 1994 Trial State Assessment in reading. These individuals contributed their expertise, energy, and creativity to help make the NAEP reading assessment a success. Most importantly, NAEP is grateful to the students and school staff who participated in the Trial State Assessment.

The design, development, analysis, and reporting of the 1994 Trial State Assessment was a continuation of the collaborative effort that began in 1989 among staff from State Education Agencies, the National Center for Education Statistics (NCES), Educational Testing Service (ETS), Westat, and National Computer Systems (NCS). The Trial State Assessment Program continued to benefit 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 provided their wisdom, experience, and hard work.

The 1990, 1992 and 1994 Trial State Assessments were funded through NCES by the Office of Educational Research and Improvement of the U.S. Department of Education. The NCES staff — particularly Jeanne Griffith, Gary Phillips, Sheida White, Peggy Carr, Sharif Shakrani, Stephen Gorman, Sue Ahmed, Maureen Treacy, and Sahar Akhtar — worked closely and collegially with ETS, Westat, and NCS staff and played a crucial role in all aspects of the program. The 1994 NAEP assessments and reports benefitted from the consistent support and guidance of Emerson Elliott, the past Commissioner of NCES.

The members of the National Assessment Governing Board (NAGB) and the NAGB staff provided continual advice and guidance. Their contractor for NAEP's reading consensus project, the Council of Chief State School Officers (CCSSO), worked diligently under tight time constraints to create the forward-looking framework underlying the assessment. NAGB's contractor for setting achievement levels, American College Testing (ACT), provided advisory and analytic functions in setting the achievement levels.

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, setting the achievement levels, and providing a framework for interpreting the results.

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 the test development activities, and Jay Campbell and Patricia Donahue worked with the Reading Item Development committee to develop the assessment instruments. John Barone managed the data analysis activities; Jules Goodison and John Olson, the operational aspects; Clyde Reese and Karen Miller, reporting activities; and John Olson, state services and technical assistance. Statistical and psychometric activities were led by John Mazzeo, with consultation from Eugene Johnson. Sampling and data collection

activities were carried out by Westat under the direction of Renee Slobasky, Keith Rust, and Nancy Caldwell. Printing, distribution, scoring, and processing activities were conducted by NCS, under the supervision of John O'Neill, Judy Moyer, Mathilde Kennel, Lavonne Mohn, Brad Thayer, and Dianne Smrdel.

The large number of states and territories participating in the Trial State Assessment provided many challenges, including the need to develop different reports that are customized for each of the participating jurisdictions based on its characteristics and the results of its assessed students. To meet this challenge, a computerized report-generation system was employed that created text, tables, and graphics for each jurisdiction's unique report. This system, created by Jennifer Nelson, was designed to take advantage of mainframe computer speed and accuracy for the data computations, interfaced with high-quality text formatting and graphical output procedures. Laura Jerry led the computer-based development of the reading report. John Mazzeo and Nancy Allen oversaw the analyses for the reports, with significant input from Steve Isham. James Carlson, Hua Hua Chang, John Donoghue, John Ferris, David Freund, Frank Jenkins, Bruce Kaplan, Edward Kulick, Phillip Leung, Jo-lin Liang, Eiji Muraki, Craig Pizzuti and Spencer Swinton collaborated to generate the data, conduct the analyses, and check the results. Al Rogers developed and generated the maps.

Stephen Koffler, Jay Campbell, and John Mazzeo wrote the text for the report. Laura Jerry and Karen Miller coordinated the quality control and checking of the reports. Mary Michaels and Sharon Johnson were responsible for coordinating the cover design and final production of the reports. Finally, a special thanks is also due to the numerous reviewers, internal and external, who suggested improvements to the reports, and the individuals who thoroughly checked the data, text, tables, and maps.

**UNITED STATES  
DEPARTMENT OF EDUCATION  
WASHINGTON, DC 20208-5653**

---

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**





**U.S. Department of Education**  
Office of Educational Research and Improvement (OERI)  
National Library of Education (NLE)  
Educational Resources Information Center (ERIC)



## **NOTICE**

### **REPRODUCTION BASIS**



This document is covered by a signed “Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a “Specific Document” Release form.



This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either “Specific Document” or “Blanket”).