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The Nation's Report Card

Report for Pennsylvania

Reading 2002



The National Assessment of Educational Progress

U.S. Department of Education

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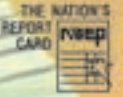
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State Reading 2002

The Nation's Report Card for



Pennsylvania

KEY FINDINGS

For grade 4:

- The average scale score for students in Pennsylvania was 221. This was not found to differ significantly from that of 1992 (221).
- Students' scale scores in Pennsylvania were higher than those in 17 jurisdictions, lower than those in 9 jurisdictions, and the difference was not found to be significant for 21 jurisdictions.
- The percentage of students in Pennsylvania who performed at or above the *Proficient* level was 34 percent. This was not found to differ significantly from that in 1992 (32 percent).

For grade 8:

- The average scale score for students in Pennsylvania was 265.
- Students' scale scores in Pennsylvania were higher than those in 19 jurisdictions, lower than those in 9 jurisdictions, and the difference was not found to be significant for 18 jurisdictions.
- The percentage of students in Pennsylvania who performed at or above the *Proficient* level was 35 percent.

This report provides selected results from the National Assessment of Educational Progress (NAEP) for Pennsylvania's public-school students at grades 4 and 8. Since 1992, reading has been assessed in four different years at the state level (at grade 4 in 1992 and 1994, and at both grades 4 and 8 in 1998 and 2002).

Pennsylvania participated in the 1992, 1994, and 2002 assessments at grades 4 and 8 and met the criteria for reporting public-school results for both grades. *The Nation's Report Card:*

Reading 2002 provides additional results from the assessment. NAEP is a project of the National Center for Education Statistics (NCES).

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The full set of results is available in an interactive database on the NAEP web site, <http://www.nces.ed.gov/nationsreportcard>. Released test questions, scoring rubrics, and question-level performance data are also available on the web site.

Introduction

What Was Assessed?

The content for each NAEP assessment is developed through a framework development process directed by the National Assessment Governing Board (NAGB). The development process implemented for reading required the active participation of teachers, curriculum specialists, subject-matter specialists, local school administrators, parents, and members of the general public. The objectives for each NAEP assessment are described in a “framework,” a document that delineates the important content and process areas to be measured, as well as the types of questions to be included on the assessment.

The reading framework for the 1992 and 1994 reading assessments also guided the 1998, 2000 (national grade 4 only), and the 2002 assessments. This framework was developed under the auspices of the Council of Chief State School Officers (CCSSO) and directed by NAGB. In 2002, the framework was updated to provide more explicit detail regarding the assessment design. In doing so, some of the terms used to describe elements of the reading assessment were altered slightly. It should be noted, however, that this updating does not represent a change in the content or design of the NAEP reading assessment. The framework is available on the NAGB web site (http://www.nagb.org/pubs/read_fw_03.pdf).

The framework is founded on a body of research from the field of education that defines reading as an interactive and constructive process involving the reader, the text, and the context of the reading experience. Reading involves the development of an understanding of text, thinking about the text in different ways, and using a variety of text types for different purposes. For example, readers may read stories to enjoy and appreciate the human experience, study science texts to form new hypotheses about

knowledge, or use maps to gain information about specific places.

Recognizing that readers vary their approach to reading according to the demands of any particular text, the framework specifies the assessment of reading in three contexts: reading for literary experience, reading to gain information, and reading to perform a task. Each context for reading is associated with a range of different types of texts that are included in the NAEP reading assessment. All three contexts for reading are assessed at grades 8 and 12, but reading to perform a task is not assessed at grade 4.

As readers attempt to develop understanding of text, they focus on general topics or themes, interpret and integrate ideas, make connections to background knowledge and experiences, and examine the content and structure of the text. The framework accounts for these different approaches to understanding text by specifying four “aspects of reading” that represent the types of comprehension questions asked of students. All four aspects of reading are assessed at all three grades within each context of reading. The reading framework specifies the percentage distribution of questions by grade level for each of the contexts and aspects of reading.

The assessment contains reading materials that were drawn from sources commonly available to students both in and out of the school environment. These authentic materials were considered to be representative of the types of reading experiences typically encountered by students. Each student in the state assessment was asked to complete two 25-minute sections, each consisting of a reading passage and associated comprehension questions. A combination of multiple-choice and constructed-response questions was used to assess students’ understanding of the passages. Released NAEP reading passages and questions, along with student performance data by state, are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard/itmrls/>).

Who Was Assessed?

For the NAEP state assessments, a target for each jurisdiction is a sample of 100 schools and 3,000 students, except in small or sparsely populated jurisdictions. The sample of schools and students is chosen in a two-stage sampling process. First, the sample of schools is selected by probability sampling methods. Then, within the participating schools, random samples of students are chosen (only public schools are reported in the state reports). These methods are described in *The Nation's Report Card: Reading 2002*. The national and state results in 2002 derive from common samples. The national results include the results from the states, weighted appropriately to represent the U.S. student population. The overall participation rates for schools and students must meet guidelines established by NCES and NAGB in order for assessment results to be reported publicly. Data are not reported to the public for a state or jurisdiction that participates but does not meet minimum participation rate guidelines. For more information about participation guidelines, see the procedural appendix in *The Nation's Report Card: Reading 2002*.

How Is Student Performance Reported?

The results of student performance on the NAEP assessments are reported for various groups of students (e.g., fourth-grade female students or students who took the assessment in different years). No individual student scores are reported by NAEP. The differences in performance between groups of students that are discussed in this report are based on statistical tests that consider both the magnitude of the differences between averages or percentages and the standard error of those statistics. It should be noted that the averages and percentages in this report have a standard error—a range of a few points plus or minus the score—which accounts for potential score fluctuation due to sampling error and measurement error. Statistical tests that factor in these standard errors are used to determine whether the differences between average scores are significant. Estimates based on small subgroups are likely to have relatively large standard errors. Consequently, some seemingly large differences may

not be statistically significant. The reader is cautioned to rely on the reported differences in the text and tables, which are statistically significant, rather than on the apparent magnitude of any difference. Statistically significant differences between 2002 and prior assessments are marked with a notation (*) in the tables. Differences among groups within a year are discussed in the text, but are not marked within the tables. Student reading performance is described in two ways: 1) average scale scores and 2) achievement levels.

Scale Scores: Student performance is reported as an average score based on the NAEP reading scale that ranges from 0 to 500 and is linked to the corresponding scales in 1992, 1994, and 1998. The average scale score reflects the overall reading performance of a particular group of students. The overall composite scale was developed by weighting each of the three reading subscales (one for each of the three above-mentioned purposes for reading) based on its relative importance in the NAEP reading framework. This composite scale is the metric used to present the average scale scores and selected percentiles used in NAEP reports. More information on NAEP scales is available in the procedural appendix of *The Nation's Report Card: Reading 2002*.

Achievement Levels: Student reading performance is also reported in terms of three achievement levels—*Basic*, *Proficient*, and *Advanced*. Results based on achievement levels are expressed in terms of the percentage of students who attained each level. The three achievement levels are defined as follows:

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

The achievement levels are performance standards adopted by NAGB as part of its statutory responsibilities. The levels represent collective judgments of what students should know and be able to do for each grade tested. They are based on recommendations made by broadly representative panels of classroom teachers, education specialists, and members of the general public. As provided by law, the National Center for Education Statistics (NCES), upon review of congressionally mandated evaluations of NAEP, has determined that the achievement levels are to be used on a trial basis until it is determined that the achievement levels are “reasonable, valid, and informative to the public” (No Child Left Behind Act of 2001, Pub. L. No. 107–110, 115 Stat. 1425 (2001)). However, both NCES and NAGB believe these performance standards are useful for understanding trends in student achievement. They have been widely used by national and state officials as a common yardstick for academic performance. The reading achievement level descriptions are summarized for grades 4 and 8 in figure 1.

The results displayed in *The Nation’s Report Card: Reading 2002* are based on representative samples that include students with disabilities (SD) and limited English proficient students (LEP). In assessments prior to 1998, no testing accommodations or adaptations were made available to the special-needs students in

these samples. However, subsequent research carried out by NAEP revealed that the results for such accommodated students could be combined with the results for nonaccommodated students without compromising the validity of the NAEP scales in trend comparisons (see page 33). Therefore, the special-needs students who typically received accommodations in their classroom testing also received them in the NAEP assessment, where appropriate.

In the tables that follow, the results for the assessment years where accommodations were not permitted (1992 and 1994) are reported in the same tables as the results where accommodations were permitted (2002).

In the text that follows, statistical comparisons are made between the results across years, regardless of accommodation conditions, because NAEP’s statistical studies showed that these comparisons could be made and the results remain valid. Note that in previous state reports comparative data for the region (Northeast, South, Central, and West) in which the state is located were provided in the tables. Data for the state’s region are not presented in this year’s reports because uneven school response rates in two regions made the comparative data less reliable than in the past. In some cases poor response was obtained from the samples of schools from states that were not participating in the NAEP state assessment program.



The Nation's Report Card 2002 State Assessment

Descriptions of NAEP reading achievement levels, grades 4 and 8

Grade 4

<p>Basic level (208)</p>	<p>Fourth-grade students performing at the <i>Basic</i> level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for fourth graders, they should be able to make relatively obvious connections between the text and their own experiences, and extend the ideas in the text by making simple inferences.</p>
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For example, when reading **literary** text, *Basic*-level fourth graders 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, they should be able to tell what the selection is generally about or identify the purpose for reading it, provide details to support their understanding, and connect ideas from the text to their background knowledge and experiences.

<p>Proficient level (238)</p>	<p>Fourth-grade students performing at the <i>Proficient</i> level should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. When reading text appropriate to fourth grade, they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connections between the text and what the student infers should be clear.</p>
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For example, 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.

<p>Advanced level (268)</p>	<p>Fourth-grade students performing at the <i>Advanced</i> level should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. When reading text appropriate to fourth grade, they should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.</p>
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For example, 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 experiences and other readings with 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 form and content of the text and explain their judgments clearly.

See footnote at end of figure.



The Nation's Report Card 2002 State Assessment

Descriptions of NAEP reading achievement levels, grades 4 and 8—Continued

Grade 8

<p>Basic level (243)</p>	<p>Eighth-grade students performing at the <i>Basic</i> level should demonstrate a literal understanding of what they read and be able to make some interpretations. When reading text appropriate to eighth grade, they should be able to identify specific aspects of the text that reflect the overall meaning, extend the ideas in the text by making simple inferences, recognize and relate interpretations and connections among ideas in the text to personal experience, and draw conclusions based on the text.</p>
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For example, when reading **literary** text, *Basic*-level eighth graders should be able to identify themes and make inferences and logical predictions about aspects such as plot and characters.

When reading **informational** text, they should be able to identify the main idea and the author's purpose. They should make inferences and draw conclusions supported by information in the text. They should recognize the relationships among the facts, ideas, events, and concepts of the text (e.g., cause and effect, order).

When reading **practical** text, they should be able to identify the main purpose and make predictions about the relatively obvious outcomes of procedures in the text.

<p>Proficient level (281)</p>	<p>Eighth-grade students performing at the <i>Proficient</i> level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to eighth grade, they should be able to extend the ideas in the text by making clear inferences from it, by drawing conclusions, and by making connections to their own experiences—including other reading experiences. <i>Proficient</i> eighth graders should be able to identify some of the devices authors use in composing text.</p>
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For example, when reading **literary** text, students at the *Proficient* level should be able to give details and examples to support themes that they identify. They should be able to use implied as well as explicit information in articulating themes; to interpret the actions, behaviors, and motives of characters; and to identify the use of **literary** devices such as personification and foreshadowing.

When reading **informational** text, they should be able to summarize the text using explicit and implied information and support conclusions with inferences based on the text.

When reading **practical** text, *Proficient*-level students should be able to describe its purpose and support their views with examples and details. They should be able to judge the importance of certain steps and procedures.

<p>Advanced level (323)</p>	<p>Eighth-grade students performing at the <i>Advanced</i> level should be able to describe the more abstract themes and ideas of the overall text. When reading text appropriate to eighth grade, they should be able to analyze both meaning and form and support their analyses explicitly with examples from the text, and they should be able to extend text information by relating it to their experiences and to world events. At this level, student responses should be thorough, thoughtful, and extensive.</p>
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For example, when reading **literary** text, *Advanced*-level eighth graders should be able to make complex, abstract summaries and theme statements. They should be able to describe the interactions of various **literary** elements (i.e., setting, plot, characters, and theme) and explain how the use of **literary** devices affects both the meaning of the text and their response to the author's style. They should be able to critically analyze and evaluate the composition of the text.

When reading **informational** text, they should be able to analyze the author's purpose and point of view. They should be able to use cultural and historical background information to develop perspectives on the text and be able to apply text information to broad issues and world situations.

When reading **practical** text, *Advanced*-level students should be able to synthesize information that will guide their performance, apply text information to new situations, and critique the usefulness of the form and content.

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

NAEP 2002 Reading Overall Scale Score and Achievement Level Results for Public-School Students

Grade 4 Scale Score Results

Overall Scale Score Results

Table 1A shows the overall performance of public-school students in Pennsylvania and the nation for the 1992, 1994, and 2002 assessments at grade 4. The first column of results presents the average score on the NAEP reading scale. The subsequent columns show the average score at selected percentiles. For each percentile, that percentage of scores falls below the score at that percentile.

Table 1B shows results for grade 8 for the 2002 assessment.

- In 2002, the average scale score for students in Pennsylvania was 221. This was higher than that of students across the nation (217).
- In Pennsylvania, the average scale score of students in 2002 was not found to differ significantly from that of 1992 (221).
- In Pennsylvania, the average scale score of students in 2002 was higher than that of 1994 (215).



The Nation's Report Card 2002 State Assessment
Average reading scale scores and selected percentiles, grade 4 public schools: 1992, 1994 and 2002

		Average scale score	Scale score distribution				
			10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Accommodations not permitted							
1992	Pennsylvania	221 (1.3)	177 (2.7)	200 (1.7)	223 (1.5)	244 (1.8)	261* (1.3)
	Nation	215 (1.0)	168 (2.1)	192 (0.9)	217 (1.7)	240 (1.5)	259 (2.4)
1994	Pennsylvania	215* (1.6)	163 (3.6)	192* (1.8)	220 (2.3)	243 (1.6)	262 (2.0)
	Nation	212* (1.1)	156* (2.2)	187* (1.5)	217* (1.1)	241 (1.1)	261 (1.4)
Accommodations permitted							
2002	Pennsylvania	221 (1.2)	170 (2.8)	197 (1.8)	224 (1.2)	247 (1.0)	266 (1.3)
	Nation	217 (0.5)	169 (0.8)	194 (0.6)	219 (0.4)	242 (0.5)	261 (0.5)

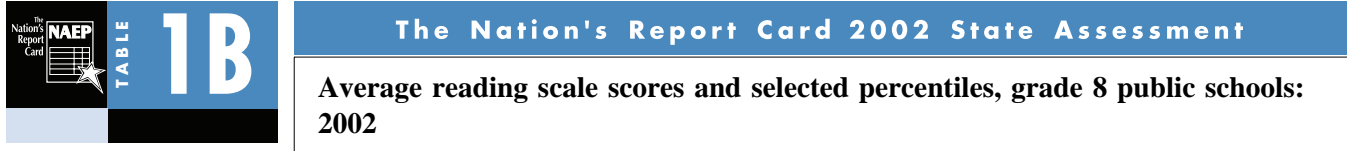
* If this notation appears, it signifies that the value is significantly different from the value for 2002. Comparisons between the accommodations-not-permitted and accommodations-permitted results should be interpreted with caution.

NOTE: The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics in the table appear in parentheses.

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

Grade 8 Scale Score Results

- In 2002, the average scale score for students in Pennsylvania was 265. This was higher than that of students across the nation (263).



The Nation's Report Card 2002 State Assessment

Average reading scale scores and selected percentiles, grade 8 public schools: 2002

	Average scale score	Scale score distribution				
		10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Accommodations permitted						
2002 Pennsylvania	265 (1.0)	221 (2.2)	245 (1.8)	269 (0.8)	289 (1.3)	306 (1.2)
Nation	263 (0.5)	219 (0.9)	242 (0.5)	265 (0.6)	286 (0.5)	303 (0.3)

NOTE: The NAEP reading scale ranges from 0 to 500.

The standard errors of the statistics in the table appear in parentheses.

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

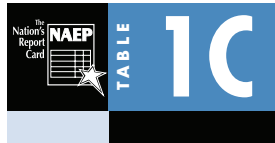
Overall Achievement Level Results

Table 1C presents the percentages of students at grade 4 who performed below *Basic*, at or above *Basic*, at or above *Proficient*, and at the *Advanced* level. Because the percentages are cumulative from *Basic* to *Proficient* to *Advanced*, they sum to more than 100 percent. Only the percentage of students at or above *Basic* (which includes the students at *Proficient* and *Advanced*) plus the students below *Basic* will always sum to 100 percent (except for rounding).

Table 1D shows the achievement level results for grade 8.

Grade 4 Achievement Level Results

- In 2002, the percentage of Pennsylvania’s students who performed at or above the *Proficient* level was 34 percent. This was greater than the percentage of the nation’s public-school students who performed at the same level (30 percent).
- In Pennsylvania, the percentage of students who performed at or above the *Proficient* level in 2002 was not found to differ significantly from that in 1992 (32 percent).
- In Pennsylvania, the percentage of students who performed at or above the *Proficient* level in 2002 was greater than that in 1994 (30 percent).



The Nation's Report Card 2002 State Assessment
Percentage of students at or above each reading achievement level, grade 4 public schools: 1992, 1994 and 2002

		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Accommodations not permitted					
1992	Pennsylvania	32 (1.7)	68 (1.7)	32 (1.7)	6* (0.8)
	Nation	40 (1.1)	60 (1.1)	27* (1.3)	6 (0.6)
1994	Pennsylvania	39* (1.6)	61* (1.6)	30* (1.3)	7 (0.8)
	Nation	41* (1.1)	59* (1.1)	28 (1.2)	7 (0.7)
Accommodations permitted					
2002	Pennsylvania	34 (1.3)	66 (1.3)	34 (1.2)	9 (0.7)
	Nation	38 (0.5)	62 (0.5)	30 (0.5)	6 (0.2)

* If this notation appears, it signifies that the value is significantly different from the value for 2002. Comparisons between the accommodations-not-permitted and accommodations-permitted results should be interpreted with caution.

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 4: *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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

Grade 8 Achievement Level Results

- In 2002, the percentage of Pennsylvania’s students who performed at or above the *Proficient* level was 35 percent. This was greater than the percentage of the nation’s public-school students who performed at or above *Proficient* (31 percent).

The Nation's Report Card 2002 State Assessment					
Percentage of students at or above each reading achievement level, grade 8 public schools: 2002					
		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Accommodations permitted					
2002	Pennsylvania	23 (1.1)	77 (1.1)	35 (1.4)	2 (0.5)
	Nation	26 (0.5)	74 (0.5)	31 (0.6)	2 (0.2)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 8: *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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

Comparisons Between Pennsylvania and Other Participating States and Jurisdictions

In 2002, 51 states and other jurisdictions participated in the reading assessment. The maps in figures 2A and 2B show the participating states and jurisdictions and indicate their membership in four U.S. geographic regions. Note that the U.S. territories and the domestic and overseas Department of Defense Education Activity schools (DoDEA/DDESS and DoDEA/DoDDS) were not placed into any of these regions.

Comparisons by Average Scale Scores

Figures 2A and 2B compare Pennsylvania's overall 2002 grades 4 and 8 reading scale scores with those of all other participating states and jurisdictions. The different shadings are determined by whether Pennsylvania's average scale score was found to be significantly different from that of each of the other participants in the 2002 NAEP reading assessment. Note that states that did not participate in 2002, or that did not meet reporting guidelines, are also represented in the maps.

Comparisons by Achievement Levels

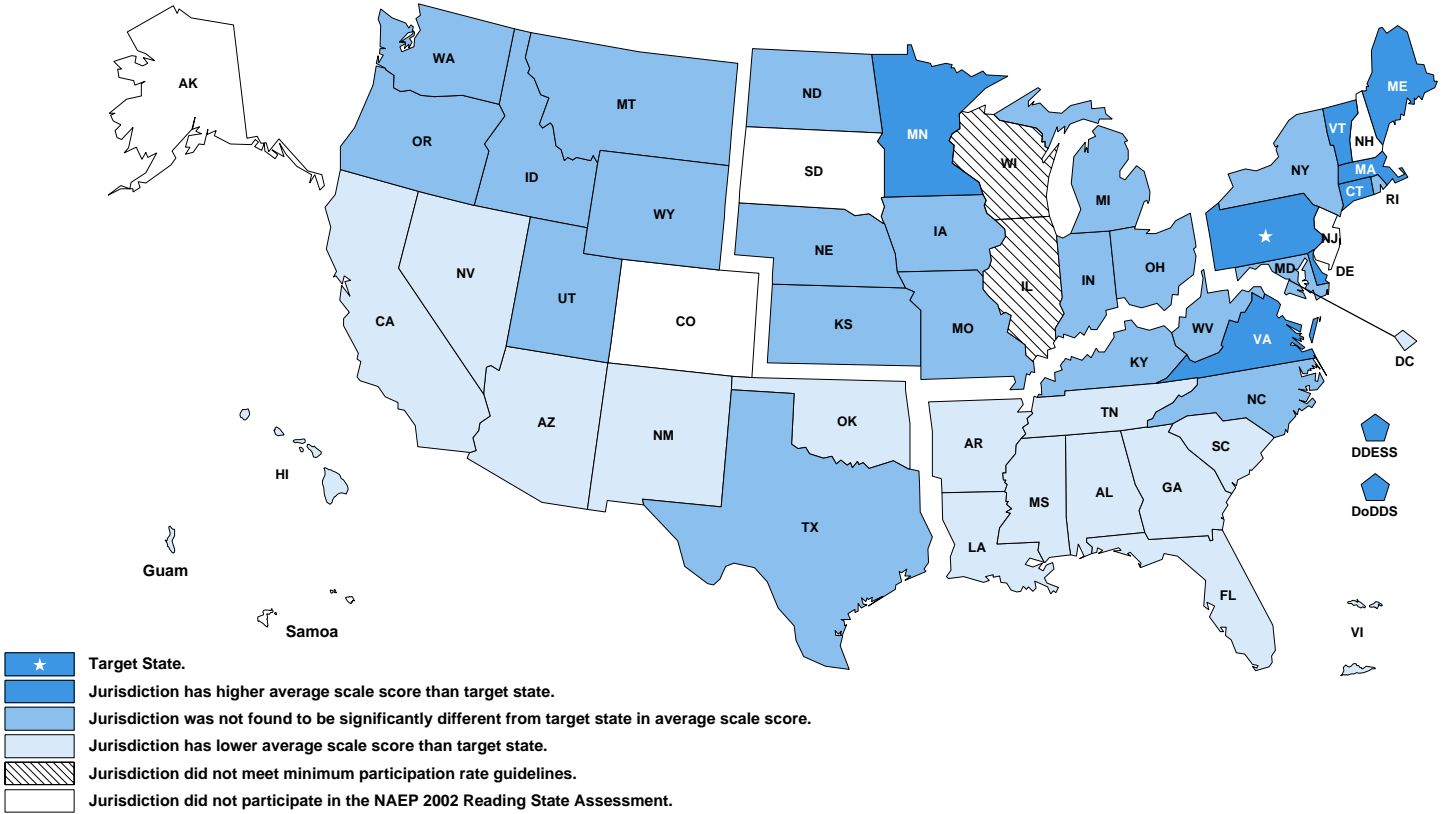
Figures 3A and 3B permit comparisons of all participants in the NAEP 2002 reading assessment in terms of percentages of students performing at or above the *Proficient* level. The participating states and jurisdictions are grouped into categories reflecting student performance compared to that in Pennsylvania. The jurisdictions are grouped by whether the percentage of their students with scores at or above the *Proficient* level (including *Advanced*) was found to be higher than, not significantly different from, or lower than the percentage in Pennsylvania. Note that the arrangement of the states and the other jurisdictions within each category is alphabetical; statistical comparisons among jurisdictions in each of the three categories are not included in this report.



FIGURE 2A

The Nation's Report Card 2002 State Assessment

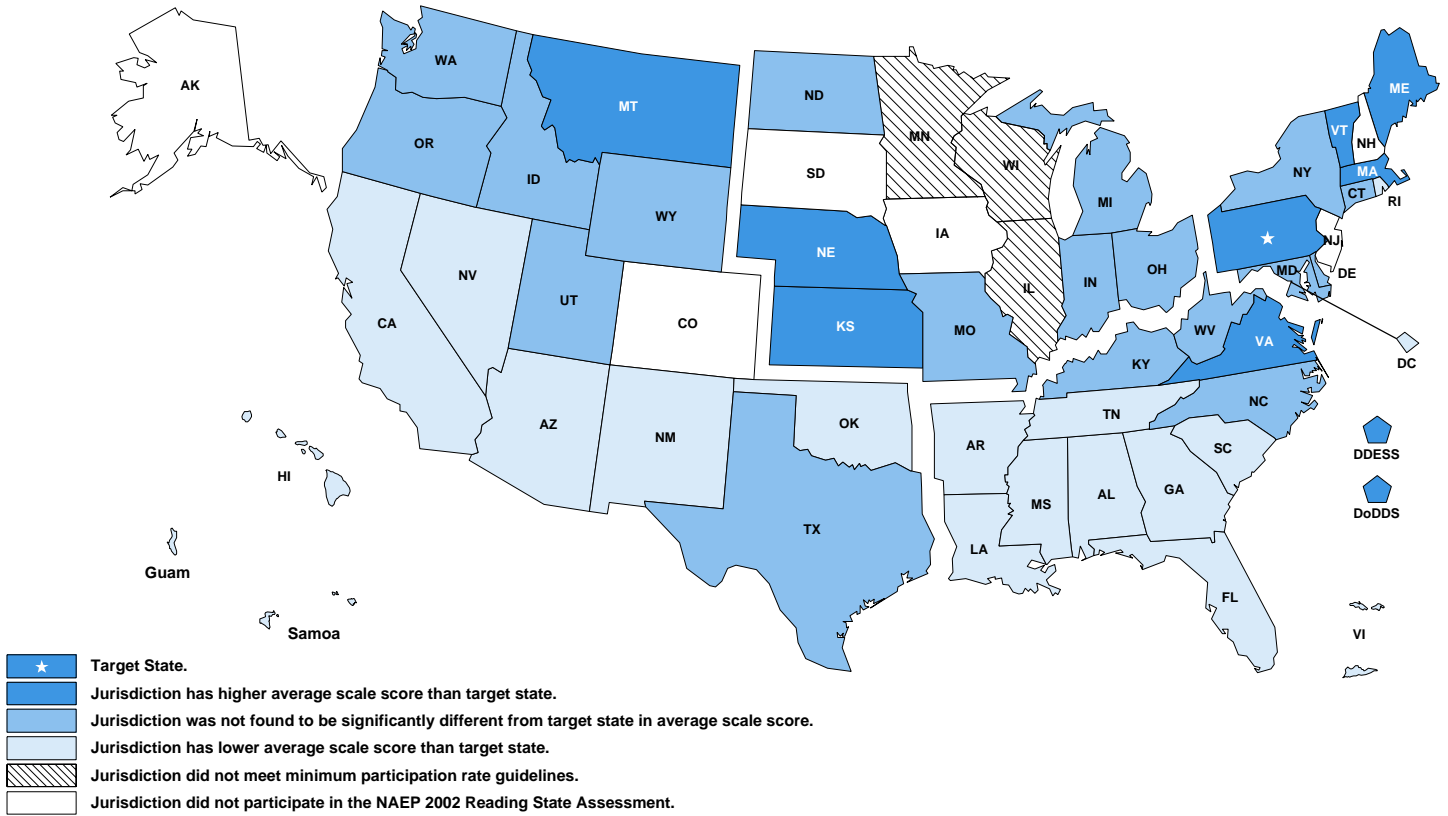
Pennsylvania's average reading scale score compared with scores for other participating jurisdictions, grade 4 public schools: 2002



DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
 DoDDS: Department of Defense Dependents Schools (Overseas).
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



The Nation's Report Card 2002 State Assessment
Pennsylvania's average reading scale score compared with scores for other participating jurisdictions, grade 8 public schools: 2002

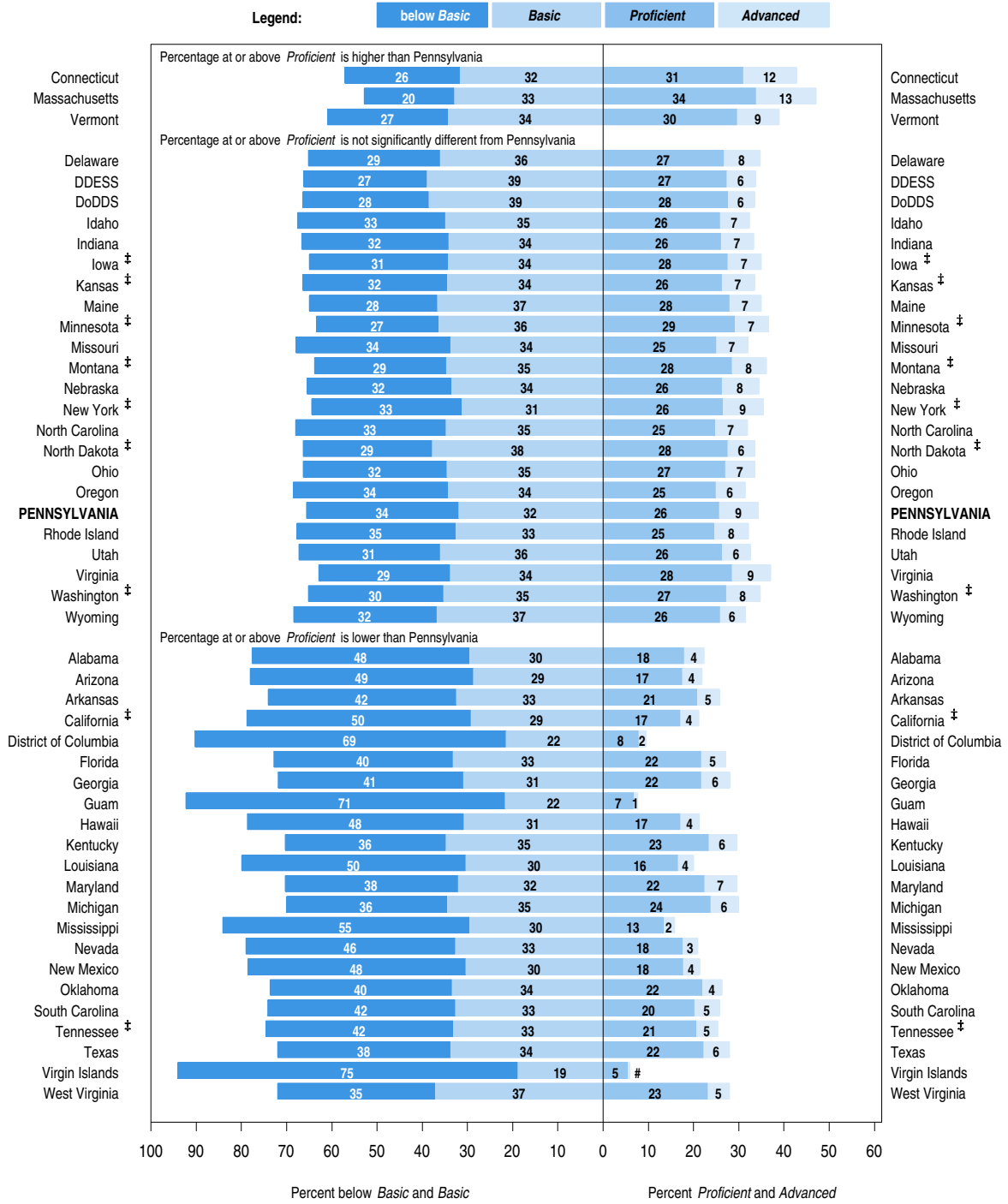


DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
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 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



The Nation's Report Card 2002 State Assessment

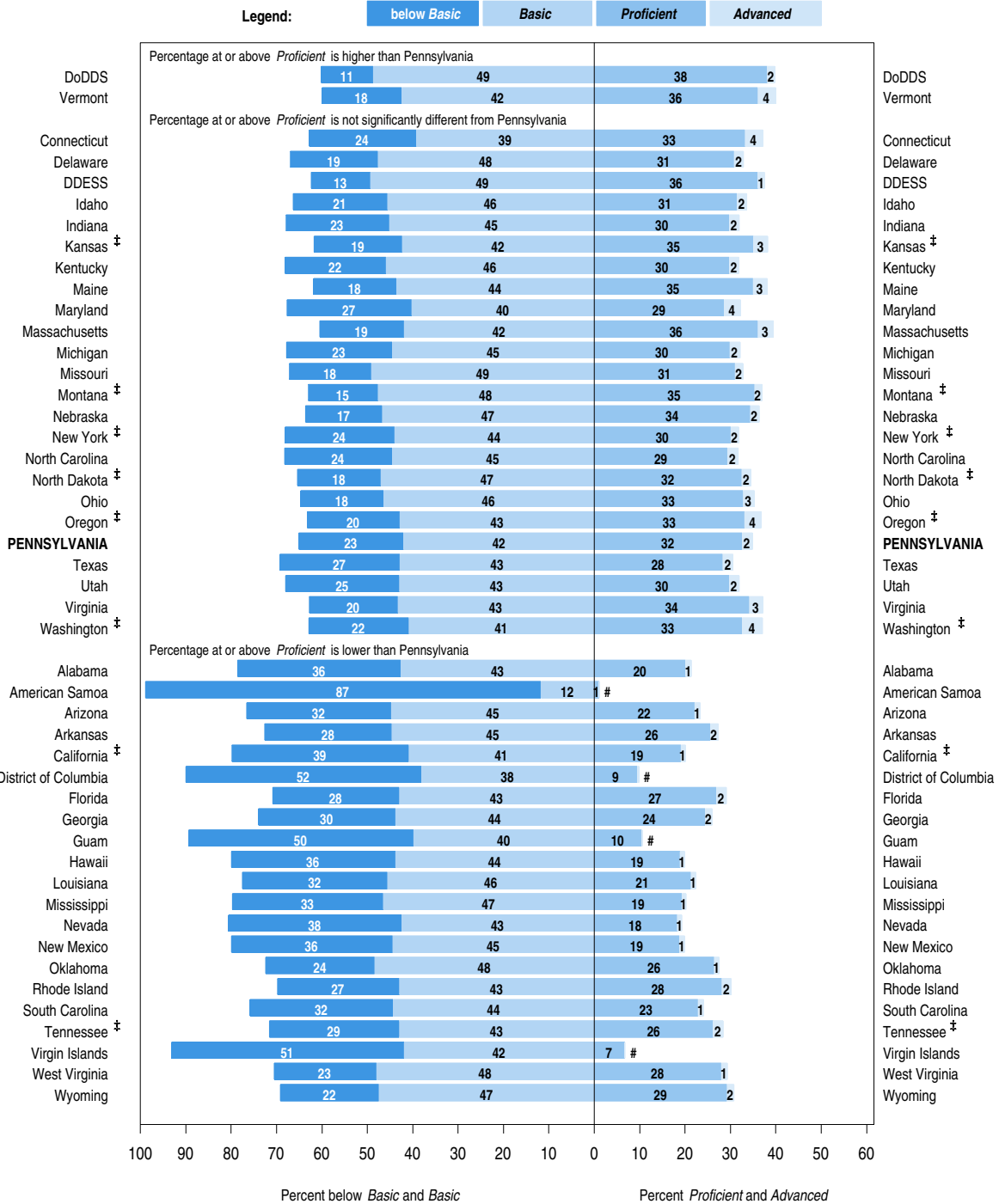
Percentage of students within each reading achievement level range, and Pennsylvania's percentage at or above Proficient compared with other participating jurisdictions, grade 4 public schools: By state, 2002



Percentage rounds to zero.
 ‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.
 DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
 DoDDS: Department of Defense Dependents Schools (Overseas).
 NOTE: The bars above contain percentages of students in each NAEP reading achievement range. Each population of students is aligned at the point where the Proficient category begins, so that they may be compared at Proficient and above.
 Percentages within each reading achievement level range may not add to 100 or to the exact percentages at or above Achievement levels, due to rounding.
 SOURCE: U.S. Department of Education, Institute of Education Sciences National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



The Nation's Report Card 2002 State Assessment
Percentage of students within each reading achievement level range, and Pennsylvania's percentage at or above Proficient compared with other participating jurisdictions, grade 8 public schools: By state, 2002



Percentage rounds to zero.

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

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: The bars above contain percentages of students in each NAEP reading achievement range. Each population of students is aligned at the point where the Proficient category begins, so that they may be compared at Proficient and above.

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

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

Reading Performance by Demographic Characteristics

This section of the report presents trend results by major demographic variables for fourth- and eighth-grade students in Pennsylvania and the nation. Results are presented for the 1992, 1994, and 2002 assessments where data for the demographic variable are available. In these tables, scale score results and achievement level performance are presented in the same table. Student performance data for the following demographic variables are reported:

- gender;
- race/ethnicity;
- eligibility for free/reduced-price school lunch; and
- type of community in which school is located (2002 only).

Each of the variables is reported in tables that present the percentage of students belonging to each subgroup (in the first column) and the average scale score (in the second column). The columns to the right show the percentage of students at or above each achievement level. The reader is cautioned against making causal inferences about the performance of these groups relative to these variables. Many factors other than those discussed here may affect student performance. NAEP collects information on many additional variables, including school and home factors related to achievement. All of this information is available in an interactive database on the NAEP web site and can be used to create additional reports of interest to a particular state.

Gender

Tables 2A and 2B show scale scores and achievement level data for public-school students at grades 4 and 8 in Pennsylvania and across the nation by gender. The indicators of significant differences that appear in the tables come from a comparison of performance by males or females from the indicated year compared with 2002. Differences in performance between males and females are indicated in the text below, but are not indicated by notations of significance in the tables.

Grade 4 Scale Score Results by Gender

- In Pennsylvania, male students' average scale score was 218 in 2002. This was lower than that of female students (223).
- In 2002, male students in Pennsylvania had an average scale score in reading (218) that was higher than that of male students across the nation (214). Female students in Pennsylvania had an average score (223) that was higher than that of female students nationwide (220).
- In Pennsylvania, the average scale scores of both males and females were not found to differ significantly in 2002 from those in 1992.
- In Pennsylvania, the average scale score of males was higher in 2002 than in 1994; however, that of females was not found to differ significantly in 2002 from that in 1994.

Grade 4 Achievement Level Results by Gender

- In 2002, 32 percent of males and 37 percent of females performed at or above the *Proficient* level in Pennsylvania. The difference between these percentages was found to be statistically significant.
- The percentage of males in Pennsylvania's public schools who were at or above the *Proficient* level in 2002 (32 percent) was greater than that of males in the nation (26 percent).
- The percentage of females in Pennsylvania at or above the *Proficient* level in 2002 (37 percent) was greater than that of the nation's females (33 percent).
- In Pennsylvania, the percentages of both males and females performing at or above the *Proficient* level were not found to differ significantly in 2002 from those in 1992.
- In Pennsylvania, the percentage of males performing at or above the *Proficient* level was greater in 2002 than in 1994; however, that of females was not found to differ significantly in 2002 from that in 1994.



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by gender, grade 4 public schools: 1992, 1994 and 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Male						
Accommodations not permitted						
1992 Pennsylvania	48* (1.2)	218 (1.5)	36 (2.1)	64 (2.1)	29 (2.4)	5 (0.8)
Nation	51 (0.7)	211 (1.3)	44 (1.7)	56 (1.7)	24 (1.5)	5 (0.7)
1994 Pennsylvania	50* (0.9)	211* (1.8)	43* (2.0)	57* (2.0)	25* (1.9)	5 (1.1)
Nation	51 (0.7)	207* (1.3)	47* (1.5)	53* (1.5)	24 (1.3)	6 (0.8)
Accommodations permitted						
2002 Pennsylvania	53 (0.9)	218 (1.5)	36 (1.8)	64 (1.8)	32 (1.6)	7 (1.0)
Nation	51 (0.3)	214 (0.5)	41 (0.6)	59 (0.6)	26 (0.5)	5 (0.2)
Female						
Accommodations not permitted						
1992 Pennsylvania	52* (1.2)	223 (1.4)	29 (1.9)	71 (1.9)	34 (1.7)	7 (1.1)
Nation	49 (0.7)	219 (1.1)	35 (1.5)	65 (1.5)	30 (1.5)	7 (0.9)
1994 Pennsylvania	50* (0.9)	220 (1.9)	35 (2.0)	65 (2.0)	35 (2.0)	9 (1.1)
Nation	49 (0.7)	218 (1.2)	36 (1.3)	64 (1.3)	32 (1.6)	8 (0.9)
Accommodations permitted						
2002 Pennsylvania	47 (0.9)	223 (1.3)	31 (1.5)	69 (1.5)	37 (1.8)	10 (1.3)
Nation	49 (0.3)	220 (0.5)	35 (0.6)	65 (0.6)	33 (0.6)	8 (0.3)

* If this notation appears, it signifies that the value is significantly different from the value for 2002. Comparisons between the accommodations-not-permitted and accommodations-permitted results should be interpreted with caution.

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 4: *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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

Grade 8 Scale Score Results by Gender

- In Pennsylvania, male students' average scale score was 263 in 2002. This was lower than that of female students (268).
- In 2002, male students in Pennsylvania had an average scale score in reading (263) that was higher than that of male students across the nation (258). Female students in Pennsylvania had an average score (268) that was not found to differ significantly from that of female students nationwide (267).

Grade 8 Achievement Level Results by Gender

- In 2002, 32 percent of males and 38 percent of females performed at or above the *Proficient* level in Pennsylvania. The difference between these percentages was not found to be statistically significant.
- The percentage of males in Pennsylvania's public schools who were at or above the *Proficient* level in 2002 (32 percent) was greater than that of males in the nation (26 percent).
- The percentage of females in Pennsylvania at or above the *Proficient* level in 2002 (38 percent) was not found to be significantly different from that of the nation's females (36 percent).



The Nation's Report Card 2002 State Assessment
Average reading scale scores and percentage of students at or above each achievement level, by gender, grade 8 public schools: 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Male						
Accommodations permitted						
2002 Pennsylvania	50 (1.0)	263 (1.4)	25 (1.8)	75 (1.8)	32 (2.1)	2 (0.9)
Nation	50 (0.3)	258 (0.5)	30 (0.6)	70 (0.6)	26 (0.6)	2 (0.2)
Female						
Accommodations permitted						
2002 Pennsylvania	50 (1.0)	268 (1.5)	21 (1.5)	79 (1.5)	38 (2.1)	3 (0.6)
Nation	50 (0.3)	267 (0.5)	21 (0.6)	79 (0.6)	36 (0.6)	3 (0.3)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 8: *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above. Percentages below and at or above *Basic* may not add to 100, due to rounding. The standard errors of the statistics in the table appear in parentheses.

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

Race/Ethnicity

As part of the student roster developed for the NAEP assessment, the school reported data used to identify the racial/ethnic subgroup that best described the student. The six mutually exclusive categories were White, Black, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, and Other. This information was the primary contributor to the classifications appearing below. For details of the derivation of this variable, see *The Nation's Report Card: Reading 2002*.

Tables 3A and 3B show scale scores and achievement data by racial and ethnic group membership for public-school students at grades 4 and 8. Only the race/ethnicity categories with sufficient membership to meet reporting requirements in Pennsylvania are reported below.

Grade 4 Scale Score Results by Race/Ethnicity

- In 2002, White students in Pennsylvania had an average scale score that was higher than those of Black and Hispanic students, but was not found to be significantly different from that of Asian/Pacific Islander students.

- The differences in average scale scores of White, Black, and Hispanic students in Pennsylvania between 2002 and 1992 were not found to be significant.
- The average scale scores of White and Black students in Pennsylvania were higher in 2002 than in 1994.

Grade 4 Achievement Level Results by Race/Ethnicity

- In Pennsylvania in 2002, the percentage of White students performing at or above the *Proficient* level was greater than those of Black and Hispanic students, but was not found to differ significantly from that of Asian/Pacific Islander students.
- The differences in the respective percentages of White, Black, and Hispanic students in Pennsylvania performing at or above the *Proficient* level between 2002 and 1992 were not found to be significant.
- The percentage of White students in Pennsylvania performing at or above the *Proficient* level was greater in 2002 than in 1994. The difference in the percentage of Black students in Pennsylvania performing at or above the *Proficient* level between 2002 and 1994 was not found to be significant.



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by race/ethnicity, grade 4 public schools: 1992, 1994 and 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
White						
Accommodations not permitted						
1992 Pennsylvania	82* (1.7)	227 (1.2)	25 (1.7)	75 (1.7)	36 (1.8)	7* (0.9)
Nation	72* (0.9)	223* (1.4)	31* (1.5)	69* (1.5)	33* (1.9)	8 (0.9)
1994 Pennsylvania	80 (2.0)	224* (1.3)	31* (1.4)	69* (1.4)	36* (1.3)	8 (1.0)
Nation	71* (0.8)	222* (1.3)	31* (1.3)	69* (1.3)	35* (1.5)	9 (0.9)
Accommodations permitted						
2002 Pennsylvania	76 (1.4)	228 (1.0)	25 (1.4)	75 (1.4)	41 (1.4)	10 (0.8)
Nation	60 (0.7)	227 (0.3)	26 (0.4)	74 (0.4)	39 (0.5)	9 (0.3)
Black						
Accommodations not permitted						
1992 Pennsylvania	13 (1.7)	190 (2.1)	71 (3.0)	29 (3.0)	8 (1.5)	1 (0.5)
Nation	18 (0.5)	191* (1.7)	69* (2.1)	31* (2.1)	8* (1.4)	1 (0.4)
1994 Pennsylvania	16 (2.1)	178* (3.9)	76 (3.5)	24 (3.5)	7 (2.0)	0 (****)
Nation	18 (0.8)	184* (1.8)	72* (2.7)	28* (2.7)	8* (0.9)	1 (0.3)
Accommodations permitted						
2002 Pennsylvania	17 (1.6)	192 (3.6)	67 (3.7)	33 (3.7)	10 (1.9)	2 (0.7)
Nation	18 (0.4)	198 (0.6)	61 (0.7)	39 (0.7)	12 (0.5)	1 (0.2)
Hispanic						
Accommodations not permitted						
1992 Pennsylvania	3 (1.0)	191 (5.6)!	67 (6.8)!	33 (6.8)!	8 (3.1)!	0 (****)!
Nation	7* (0.8)	194 (2.7)	63 (2.7)	37 (2.7)	10* (1.7)	1 (****)
1994 Pennsylvania	2 (0.6)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	7* (0.6)	186* (3.6)	68* (3.7)	32* (3.7)	11 (2.1)	2 (0.8)
Accommodations permitted						
2002 Pennsylvania	4 (1.0)	197 (5.0)!	60 (6.2)!	40 (6.2)!	14 (3.5)!	1 (****)!
Nation	17 (0.5)	199 (1.4)	57 (1.4)	43 (1.4)	14 (0.8)	2 (0.3)
Asian/Pacific Islander						
Accommodations not permitted						
1992 Pennsylvania	1 (0.3)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	2* (0.4)	215* (3.2)	41 (5.4)	59 (5.4)	23* (4.9)	4 (2.5)
1994 Pennsylvania	2 (0.6)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	3 (0.5)	217 (4.2)	36 (4.8)	64 (4.8)	34 (4.6)	9 (4.4)
Accommodations permitted						
2002 Pennsylvania	2 (0.4)	236 (5.4)!	20 (5.4)!	80 (5.4)!	49 (9.9)!	17 (4.9)!
Nation	4 (0.2)	223 (1.7)	31 (2.2)	69 (2.2)	36 (2.1)	9 (0.8)

* If this notation appears, it signifies that the value is significantly different from the value for 2002. Comparisons between the accommodations-not-permitted and accommodations-permitted results should be interpreted with caution.

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 4: *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

*** Sample size is insufficient to permit a reliable estimate. (****) Standard error estimates cannot be accurately determined.

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

Grade 8 Scale Score Results by Race/Ethnicity

- In 2002, White students in Pennsylvania had an average scale score that was higher than those of Black and Hispanic students, but was not found to differ significantly from that of Asian/Pacific Islander students.

Grade 8 Achievement Level Results by Race/Ethnicity

- In Pennsylvania in 2002, the percentage of White students performing at or above the *Proficient* level was greater than those of Black and Hispanic students, but was not found to differ significantly from that of Asian/Pacific Islander students.



The Nation's Report Card 2002 State Assessment
Average reading scale scores and percentage of students at or above each achievement level, by race/ethnicity, grade 8 public schools: 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
White						
Accommodations permitted						
2002 Pennsylvania	81 (1.5)	271 (1.0)	17 (1.0)	83 (1.0)	40 (1.7)	3 (0.7)
Nation	64 (0.6)	271 (0.5)	17 (0.5)	83 (0.5)	39 (0.7)	3 (0.3)
Black						
Accommodations permitted						
2002 Pennsylvania	13 (1.4)	236 (2.5)	55 (3.5)	45 (3.5)	8 (1.2)	0 (****)
Nation	15 (0.4)	244 (0.8)	46 (1.0)	54 (1.0)	13 (0.7)	0 (0.2)
Hispanic						
Accommodations permitted						
2002 Pennsylvania	3 (1.0)	241 (3.7)!	48 (5.6)!	52 (5.6)!	14 (3.6)!	1 (****)!
Nation	15 (0.4)	245 (0.8)	44 (1.3)	56 (1.3)	14 (0.8)	0 (0.2)
Asian/Pacific Islander						
Accommodations permitted						
2002 Pennsylvania	3 (0.7)	253 (11.3)!	39 (11.2)!	61 (11.2)!	27 (7.5)!	3 (****)!
Nation	4 (0.2)	265 (1.7)	25 (2.2)	75 (2.2)	34 (2.0)	3 (0.8)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 8: *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

(****) Standard error estimates cannot be accurately determined.

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

Free/Reduced-Price School Lunch Eligibility

NAEP collects data on eligibility for the federal program providing free/reduced-price school lunches. The free/reduced-price school lunch component of the National School Lunch Program (NSLP), offered through the U.S. Department of Agriculture (USDA), is designed to ensure that children near or below the poverty line receive nourishing meals. This program is available to public schools, nonprofit private schools, and residential child-care institutions. Eligibility is determined through the USDA's Income Eligibility Guidelines, and results for this category of students are included as an indicator of poverty.

Tables 4A and 4B present results for fourth- and eighth-graders. NAEP first collected information on student participation in this program in 1996; consequently, no data are available for 1992 and 1994.

Grade 4 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- Students in Pennsylvania eligible for free/reduced-price school lunch had an average reading scale score of 200. This was lower than that of students in Pennsylvania not eligible for this program (232).
- Students in Pennsylvania eligible for free/reduced-price school lunch had an average scale score (200) that was not found to differ significantly from that of similar students in the nation (202).

Grade 4 Achievement Level Results by Free/Reduced-Price School Lunch Eligibility

- In Pennsylvania, 16 percent of students who were eligible for free/reduced-price school lunch and 45 percent of those who were not eligible performed at or above the *Proficient* level. These percentages were found to be significantly different from one another.
- For students in Pennsylvania who were eligible for free/reduced-price school lunch, the percentage at or above the *Proficient* level (16 percent) was not found to be significantly different from the corresponding percentage for their counterparts around the nation (16 percent).



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by eligibility for free/reduced-price school lunch, grade 4 public schools: 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Eligible						
Accommodations permitted						
2002 Pennsylvania	35 (1.7)	200 (2.2)	57 (2.3)	43 (2.3)	16 (1.6)	3 (0.6)
Nation	43 (0.9)	202 (0.7)	54 (0.8)	46 (0.8)	16 (0.5)	2 (0.2)
Not eligible						
Accommodations permitted						
2002 Pennsylvania	63 (1.9)	232 (1.1)	21 (1.3)	79 (1.3)	45 (1.6)	12 (1.0)
Nation	50 (0.9)	229 (0.4)	24 (0.5)	76 (0.5)	41 (0.7)	10 (0.3)
Information not available						
Accommodations permitted						
2002 Pennsylvania	3 (1.4)	221 (10.3)!	35 (14.9)!	65 (14.9)!	31 (10.8)!	7 (4.6)!
Nation	7 (0.7)	217 (2.4)	38 (2.8)	62 (2.8)	30 (2.3)	7 (1.0)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 4: *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

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

Grade 8 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- Students in Pennsylvania eligible for free/reduced-price school lunch had an average reading scale score of 246. This was lower than that of students in Pennsylvania not eligible for this program (274).
- Students in Pennsylvania eligible for free/reduced-price school lunch had an average reading score (246) that was not found to differ significantly from that of eligible students across the nation (249).

Grade 8 Achievement Level Results by Free/Reduced-Price School Lunch Eligibility

- In Pennsylvania, 15 percent of students who were eligible for free/reduced-price school lunch and 43 percent of those who were not eligible performed at or above the *Proficient* level. These percentages were found to be significantly different from one another.
- For students who were eligible for free/reduced-price school lunch in Pennsylvania, the percentage at or above the *Proficient* level (15 percent) was not found to be significantly different from the corresponding percentage of eligible students nationwide (17 percent).



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by eligibility for free/reduced-price school lunch, grade 8 public schools: 2002

	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Eligible						
Accommodations permitted						
2002 Pennsylvania	30 (1.4)	246 (2.0)	43 (2.5)	57 (2.5)	15 (2.4)	0 (****)
Nation	34 (0.7)	249 (0.5)	40 (0.7)	60 (0.7)	17 (0.5)	1 (0.1)
Not eligible						
Accommodations permitted						
2002 Pennsylvania	69 (1.4)	274 (1.1)	15 (1.0)	85 (1.0)	43 (2.0)	3 (0.8)
Nation	57 (1.1)	271 (0.5)	17 (0.5)	83 (0.5)	40 (0.6)	3 (0.3)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 8: *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

(****) Standard error estimates cannot be accurately determined.

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

Type of Community in which School is Located

Schools that participated in the assessment were classified into three mutually exclusive types of community in which the school is located: central city, urban fringe/large town, and rural/small town. These categories indicate the geographic locations of schools and are not intended to indicate or imply social or economic meanings for location types. General information (including definitions) about these categories is available in the technical appendix of *The Nation's Report Card: Reading 2002*. Data are reported for the year 2002 only. This is due to new methods used by NCES to identify the type of location assigned to each school in the Common Core of Data (CCD), which rendered direct comparisons impossible between 2002 data and earlier years in the report. The new methods were put into place by NCES in order to improve the quality of the assignments, and they take into account more information about the exact physical location of the school. The variable was revised in NAEP beginning with the 2000 assessments.

Tables 5A and 5B present results for grades 4 and 8 according to type of community in Pennsylvania and the nation for 2002.

Grade 4 Scale Score and Achievement Level Results by Type of Community

- In 2002 in Pennsylvania, the average scale score of students attending schools in central cities was lower than those of students in urban fringes/large towns and rural areas/small towns.
- The average scale scores of students attending schools in urban fringes/large towns and rural areas/small towns were higher in Pennsylvania than in similar types of communities nationwide. The average scale score of students attending schools in central cities was lower in Pennsylvania than in similar types of communities nationwide.
- In 2002, the percentage of students attending schools in central cities in Pennsylvania who performed at or above the *Proficient* level was smaller than the corresponding percentages for students in urban fringes/large towns and rural areas/small towns.

- The respective percentages of students attending schools in urban fringes/large towns and rural areas/small towns who performed at or above the *Proficient* level were greater in Pennsylvania than in similar types of communities nationwide. The percentage of students attending schools in central cities who performed at or above the *Proficient* level was smaller in Pennsylvania than in similar types of communities nationwide.

Grade 8 Scale Score and Achievement Level Results by Type of Community

- In 2002 in Pennsylvania, the average scale score of students attending schools in central cities was lower than those of students in urban fringes/large towns and rural areas/small towns.
- The average scale score of students attending schools in urban fringes/large towns was higher in Pennsylvania than in similar types of communities nationwide. The average scale score of students attending schools in central cities was lower in Pennsylvania than in similar types of communities nationwide. The difference in average scale score of students attending schools in rural areas/small towns in Pennsylvania and similar communities nationwide was not found to be significant.
- In 2002, the percentage of students attending schools in central cities in Pennsylvania who performed at or above the *Proficient* level was smaller than the corresponding percentages for students in urban fringes/large towns and rural areas/small towns.
- The percentage of students attending schools in urban fringes/large towns who performed at or above the *Proficient* level was greater in Pennsylvania than in similar types of communities nationwide. The percentage of students attending schools in central cities who performed at or above the *Proficient* level was smaller in Pennsylvania than in similar types of communities nationwide. No significant difference was detected in the percentage of students attending schools in rural areas/small towns who performed at or above the *Proficient* level in Pennsylvania from similar types of communities nationwide.



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by type of community in which school is located, grade 4 public schools: 2002

		Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Central city							
2002	Pennsylvania	21 (1.2)	193 (3.1)	65 (3.2)	35 (3.2)	13 (1.6)	2 (0.5)
	Nation	28 (0.4)	208 (0.6)	49 (0.7)	51 (0.7)	21 (0.7)	4 (0.3)
Urban fringe/Large town							
2002	Pennsylvania	44 (1.6)	229 (1.6)	25 (2.0)	75 (2.0)	42 (2.0)	12 (1.2)
	Nation	42 (0.8)	221 (1.0)	33 (1.1)	67 (1.1)	34 (1.0)	8 (0.4)
Rural/Small town							
2002	Pennsylvania	36 (1.5)	226 (1.5)	26 (2.0)	74 (2.0)	38 (2.3)	9 (1.1)
	Nation	30 (0.7)	219 (0.5)	34 (0.5)	66 (0.5)	31 (0.6)	6 (0.2)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 4: *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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



The Nation's Report Card 2002 State Assessment

Average reading scale scores and percentage of students at or above each achievement level, by type of community in which school is located, grade 8 public schools: 2002

		Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Central city							
2002	Pennsylvania	20 (1.4)	243 (2.8)	47 (3.6)	53 (3.6)	14 (2.2)	1 (0.5)
	Nation	27 (0.6)	254 (0.7)	36 (0.9)	64 (0.9)	23 (0.9)	2 (0.2)
Urban fringe/Large town							
2002	Pennsylvania	45 (1.8)	273 (1.2)	16 (1.4)	84 (1.4)	43 (2.0)	3 (0.8)
	Nation	42 (0.7)	266 (0.8)	22 (0.8)	78 (0.8)	35 (1.0)	3 (0.4)
Rural/Small town							
2002	Pennsylvania	35 (1.5)	269 (1.6)	19 (1.7)	81 (1.7)	37 (2.3)	2 (0.9)
	Nation	31 (0.6)	266 (0.6)	22 (0.6)	78 (0.6)	33 (0.7)	2 (0.4)

NOTE: The NAEP reading scale ranges from 0 to 500. The achievement levels correspond to the following points on the NAEP reading scale at grade 8: *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above.

Percentages below and at or above *Basic* may not add to 100, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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

Toward a More Inclusive NAEP

NAEP endeavors to assess all students selected in the randomized sampling process, including students with disabilities (SD) as well as students who are classified by their schools as limited English proficient (LEP). The percentages of students classified as SD or LEP in all participating states and jurisdictions are available in an interactive database at the NAEP web site at <http://nces.ed.gov/nationsreportcard/naepdata/>. It is important to note that school personnel, guided by the student's Individualized Education Program (IEP), as well as eligibility for Section 504 services, make decisions regarding inclusion in the assessment of students with disabilities. They also make the decision regarding inclusion of LEP students, based on NAEP's guidelines. This includes evaluating the student's capability of participating in the assessment in English, as well as taking into consideration the number of years the student has been receiving instruction in English. Percentages of students excluded from NAEP may vary considerably across states (see table 7) and, within a state, across years. Comparisons of achievement results across states and within a state across years should be interpreted with caution if the exclusion rates vary widely.

The results displayed here and in *The Nation's Report Card: Reading 2002* are based on representative samples that include SD and LEP students who were assessed either with or without accommodations, as

guided by NAEP's inclusion guidelines. In past NAEP state reading assessments, however, no testing accommodations or adaptations were made available to the special-needs students in the samples that served as the basis for reported results.

In the 1998 national and state assessments and the 2000 national (grade 4 only) assessments, NAEP drew a second representative national sample of schools. For students in this sample, accommodations were made available. The program has used this split-sample design to study the effects of allowing accommodations for special-needs students in the assessments. A series of technical research papers covering various NAEP subject areas has been published with the results of these comparisons (see "Publications on the inclusion of students with disabilities and limited English proficient students" on page 33).

It should be noted that accommodated special-needs students typically make up a small proportion of the total weighted number of students assessed—about 3 to 4 percent of the national total.

Table 6A displays the percentages of special-needs students identified, excluded, and accommodated at grade 4. Table 6B displays the percentages for grade 8.

Table 7 presents the total number of students assessed, the percentage of students sampled that were excluded, and average scale scores for all participating states and other jurisdictions at grades 4 and 8 in the NAEP 2002 Reading State Assessment.



The Nation's Report Card 2002 State Assessment

Percentage of SD and LEP students in reading assessments identified, excluded, and assessed, grade 4 public schools: 1992, 1994 and 2002

	SD and/or LEP		SD		LEP	
	Pennsylvania	Nation	Pennsylvania	Nation	Pennsylvania	Nation
Accommodations not permitted						
1992 Identified	9 (0.8)	11 (0.5)	7 (0.7)	8 (0.4)	1 (0.4)	3 (0.4)
Excluded	4 (0.7)	6 (0.4)	3 (0.6)	5 (0.3)	1 (0.3)	2 (0.2)
Assessed under standard conditions	5 (0.5)	4 (0.5)	4 (0.5)	3 (0.4)	1 (0.2)	1 (0.3)
1994 Identified	11 (1.0)	14 (0.9)	10 (1.0)	11 (0.7)	1 (0.4)	4 (0.7)
Excluded	6 (0.8)	6 (0.4)	5 (0.8)	5 (0.4)	1 (0.2)	2 (0.2)
Assessed under standard conditions	5 (0.8)	8 (0.8)	4 (0.7)	6 (0.6)	1 (0.4)	2 (0.6)
Accommodations permitted						
2002 Identified	14 (0.8)	21 (0.4)	13 (0.7)	13 (0.2)	2 (0.5)	9 (0.5)
Excluded	5 (0.6)	7 (0.2)	4 (0.5)	5 (0.1)	1 (0.4)	2 (0.1)
Assessed under standard conditions	4 (0.5)	10 (0.4)	4 (0.5)	4 (0.1)	1 (0.2)	6 (0.4)
Assessed with accommodations	5 (0.6)	4 (0.1)	5 (0.5)	4 (0.1)	0 (0.2)	1 (0.1)

SD: Students with Disabilities. LEP: Limited English Proficient students.

NOTE: Some students were identified as both SD and LEP. Such students would be included in both the SD and LEP portions of the table.

The percentages excluded and assessed may not sum to the exact percentage identified, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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



The Nation's Report Card 2002 State Assessment

Percentage of SD and LEP students in reading assessments identified, excluded, and assessed, grade 8 public schools: 2002

	SD and/or LEP		SD		LEP	
	Pennsylvania	Nation	Pennsylvania	Nation	Pennsylvania	Nation
Accommodations permitted						
2002 Identified	15 (0.7)	18 (0.3)	14 (0.7)	13 (0.2)	1 (0.4)	6 (0.3)
Excluded	3 (0.4)	6 (0.3)	2 (0.4)	5 (0.2)	1 (0.2)	2 (0.2)
Assessed under standard conditions	4 (0.5)	8 (0.2)	4 (0.4)	5 (0.1)	1 (0.2)	4 (0.2)
Assessed with accommodations	8 (0.8)	4 (0.2)	8 (0.7)	4 (0.2)	0 (0.1)	1 (0.1)

SD: Students with Disabilities. LEP: Limited English Proficient students.

NOTE: Some students were identified as both SD and LEP. Such students would be included in both the SD and LEP portions of the table.

The percentages excluded and assessed may not sum to the exact percentage identified, due to rounding.

The standard errors of the statistics in the table appear in parentheses.

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



The Nation's Report Card 2002 State Assessment

Total number of students assessed, percentage of students sampled that were excluded, and average reading scale scores, grade 4 and 8 public schools: By state, 2002

	Grade 4 students			Grade 8 students		
	Number assessed	Percentage excluded	Average scale score	Number assessed	Percentage excluded	Average scale score
Alabama	3684	3 (0.4)	207 (1.4)	2602	2 (0.5)	253 (1.3)
Arizona	3105	8 (0.8)	205 (1.5)	2451	5 (0.6)	257 (1.3)
Arkansas	2779	5 (0.5)	213 (1.4)	2454	5 (0.9)	260 (1.1)
California [‡]	4016	5 (0.7)	206 (2.5)	3124	4 (0.5)	250 (1.8)
Connecticut	3266	5 (0.6)	229 (1.1)	2682	4 (0.6)	267 (1.2)
Delaware	3895	8 (0.4)	224 (0.6)	3850	6 (0.3)	267 (0.5)
Florida	3226	7 (0.8)	214 (1.4)	2633	6 (0.9)	261 (1.6)
Georgia	4919	4 (0.4)	215 (1.0)	3756	4 (0.4)	258 (1.0)
Hawaii	3603	6 (0.4)	208 (0.9)	2656	5 (0.4)	252 (0.9)
Idaho	2710	4 (0.7)	220 (1.1)	2390	4 (0.5)	266 (1.1)
Indiana	3469	5 (0.5)	222 (1.4)	2535	4 (0.5)	265 (1.3)
Iowa [—]	1930	8 (0.8)	223 (1.1)	—	— (—)	— (—)
Kansas [‡]	1938	5 (0.6)	222 (1.4)	1827	5 (0.9)	269 (1.3)
Kentucky	3262	8 (0.6)	219 (1.1)	2461	7 (0.6)	265 (1.0)
Louisiana	3116	10 (1.0)	207 (1.7)	2252	10 (0.8)	256 (1.5)
Maine	1964	6 (0.9)	225 (1.1)	2522	4 (0.5)	270 (0.9)
Maryland	2844	7 (0.8)	217 (1.5)	2451	4 (0.7)	263 (1.7)
Massachusetts	3236	6 (0.6)	234 (1.1)	2576	6 (0.8)	271 (1.3)
Michigan	2974	7 (0.6)	219 (1.1)	2383	7 (0.7)	265 (1.6)
Minnesota [‡]	2598	5 (0.8)	225 (1.1)	—	— (—)	— (—)
Mississippi	3091	4 (0.4)	203 (1.3)	2415	5 (0.5)	255 (0.9)
Missouri	2973	9 (0.8)	220 (1.3)	2481	8 (0.7)	268 (1.0)
Montana [‡]	1342	6 (1.1)	224 (1.8)	1849	4 (0.5)	270 (1.0)
Nebraska	1540	5 (0.9)	222 (1.5)	2139	7 (0.8)	270 (0.9)
Nevada	3447	10 (1.0)	209 (1.2)	2536	6 (0.4)	251 (0.8)
New Mexico	2316	10 (1.1)	208 (1.6)	2265	8 (0.9)	254 (1.0)
New York [‡]	2401	8 (0.9)	222 (1.5)	1867	9 (1.4)	264 (1.5)
North Carolina	3276	12 (0.9)	222 (1.0)	2540	9 (0.7)	265 (1.1)
North Dakota [‡]	2422	5 (0.7)	224 (1.0)	1949	4 (0.5)	268 (0.8)
Ohio	2722	8 (0.8)	222 (1.3)	2319	7 (0.8)	268 (1.6)
Oklahoma	3352	5 (0.7)	213 (1.2)	2493	4 (0.5)	262 (0.8)
Oregon [‡]	2675	8 (0.8)	220 (1.4)	1918	5 (0.7)	268 (1.3)
Pennsylvania	3383	5 (0.6)	221 (1.2)	2720	3 (0.4)	265 (1.0)
Rhode Island	3551	6 (0.6)	220 (1.2)	2552	5 (0.4)	262 (0.8)
South Carolina	2473	5 (0.6)	214 (1.3)	2189	5 (0.5)	258 (1.1)
Tennessee [‡]	3022	3 (0.6)	214 (1.2)	2047	3 (0.7)	260 (1.4)
Texas	3637	11 (1.1)	217 (1.7)	3258	8 (0.9)	262 (1.4)
Utah	3652	6 (0.7)	222 (1.0)	2683	4 (0.4)	263 (1.1)
Vermont	1690	5 (0.6)	227 (1.1)	2378	5 (0.6)	272 (0.9)
Virginia	3029	10 (0.8)	225 (1.3)	2546	8 (0.7)	269 (1.0)
Washington [‡]	2444	5 (0.4)	224 (1.2)	1897	4 (0.8)	268 (1.2)
West Virginia	2348	10 (0.8)	219 (1.2)	2166	10 (0.8)	264 (1.0)
Wyoming	2786	3 (0.3)	221 (1.0)	2579	3 (0.3)	265 (0.7)
American Samoa	—	— (—)	— (—)	460	8 (1.0)	198 (1.7)
District of Columbia	2554	8 (0.4)	191 (0.9)	1638	7 (0.6)	240 (0.9)
DDESS	1351	4 (0.5)	225 (0.7)	701	3 (0.6)	272 (1.0)
DoDDS	2924	3 (0.3)	224 (0.5)	2090	2 (0.3)	273 (0.6)
Guam	1216	7 (0.5)	185 (1.3)	1011	2 (0.4)	240 (1.2)
Virgin Islands	738	3 (0.4)	179 (1.9)	567	8 (0.6)	241 (1.3)

— Iowa did not participate at grade 8. American Samoa did not participate at grade 4. Minnesota did not meet minimum participation guidelines to report results at grade 8.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002. Oregon met the guidelines at grade 4, but not grade 8.

NOTE: The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics in the table appear in parentheses.

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

Where to Find More Information

The NAEP Reading Assessment

The latest news about the NAEP 2002 reading assessment and the national results can be found on the NAEP web site at

<http://nces.ed.gov/nationsreportcard/reading/results/>.

The individual reports for each participating state and other jurisdictions are also available in the state results section of the web site at

<http://nces.ed.gov/nationsreportcard/states/>. *The Reading Framework for the 2003 National Assessment of Educational Progress*, on which this assessment is based, is available at the Internet address http://www.nagb.org/pubs/read_fw_03.pdf.

Additional Results from the Reading Assessment

For more findings from the 2002 reading assessments, refer to the NAEP 2002 results at

<http://nces.ed.gov/nationsreportcard/naepdata/>. The interactive database at this site includes student and school variables for all participating states and other jurisdictions, the nation, and the four NAEP geographic regions. Data tables are also available for each jurisdiction, with all background questions cross-tabulated with the major demographic variables.

Technical Documentation

For explanations of NAEP survey procedures see Allen, N. L., Donoghue, J. R., and Schoeps, T. L. (2001). *The NAEP 1998 Technical Report* (NCES 2001–509). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

Publications on the inclusion of students with disabilities and limited English proficient students

Olson, J. F., and Goldstein, A. A. (1997). *The Inclusion of Students with Disabilities and Limited English Proficient Students in Large-Scale Assessments: A Summary of Recent Progress* (NCES 97–482). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

Mazzeo, J., Carlson, J. E., Voelkl, K. E., and Lutkus, A. D. (2000). *Increasing the Participation of Special-Needs Students in NAEP: A Report on 1998 Research Activities* (NCES 2000–473). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

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

Lutkus, A. D. (forthcoming). *Including Special-Needs Students in the NAEP 1998 Reading Assessment, Part II: Results for Students with Disabilities and Limited English Proficient Students* (NCES 2003–468). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

To Order Publications

Recent NAEP publications related to reading are listed on the reading page of the NAEP web site and are available electronically. Publications can also be ordered from:

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The 2002 Reading State Reports in this series were prepared by Laura Jerry and Anthony Lutkus of Educational Testing Service.

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.

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