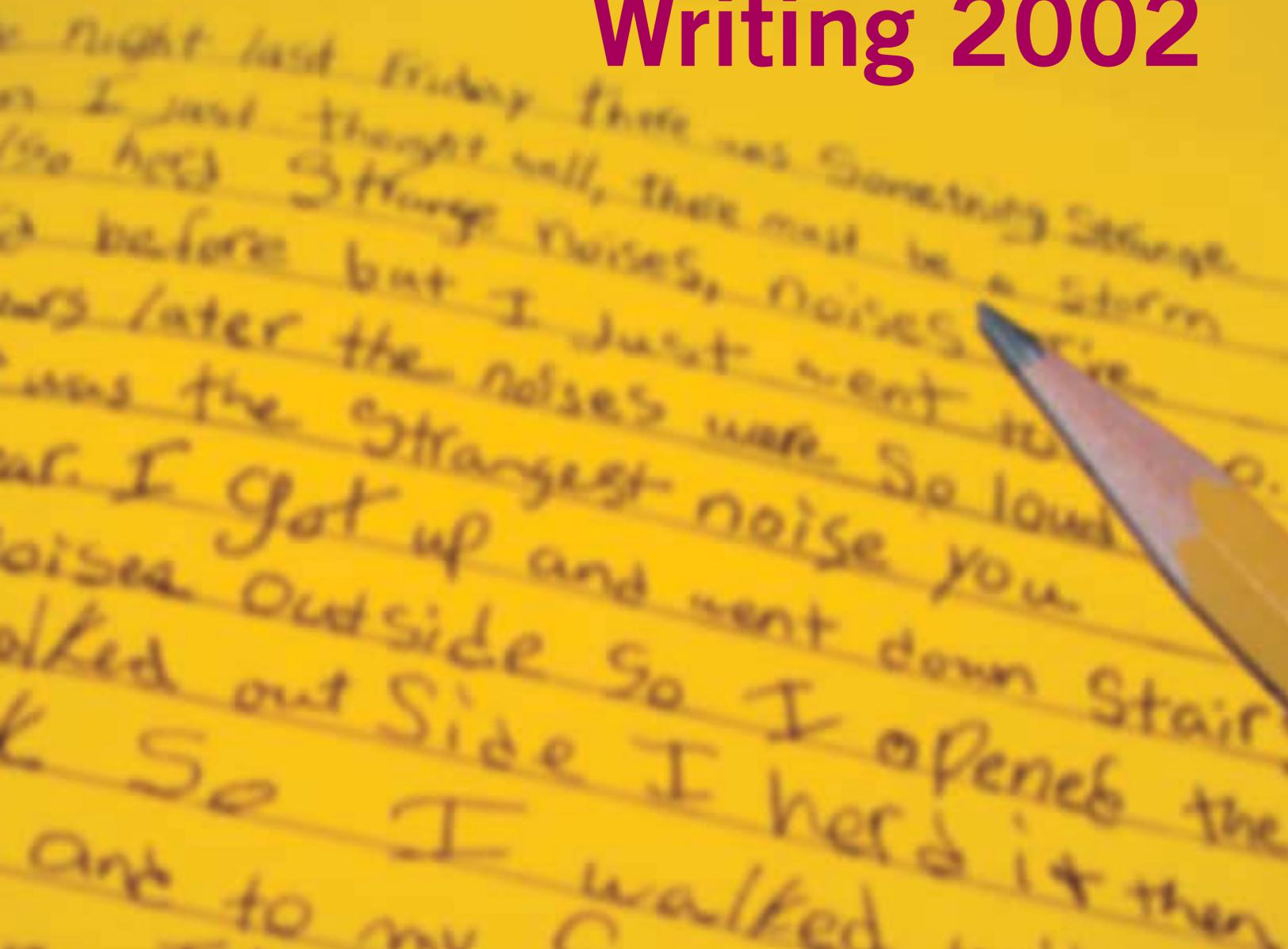


The Nation's Report Card Writing 2002



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

NAEP is a congressionally mandated project of the National Center for Education Statistics, within the Institute of Education Sciences of 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.

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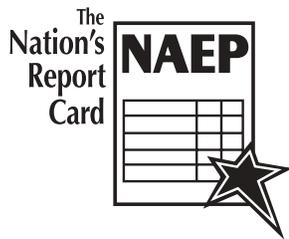
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The Nation's Report Card

Writing

2002



U.S. Department of Education
Institute of Education Sciences
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SUGGESTED CITATION

U.S. Department of Education. Institute of Education Sciences. National Center for Education Statistics. *The Nation's Report Card: Writing 2002*, NCES 2003-529, by H. R. Persky, M. C. Daane, and Y. Jin. Washington, DC: 2003.

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The work upon which this publication is based was performed for the National Center for Education Statistics by Educational Testing Service.

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E

xecutive Summary

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

This report presents the results of the NAEP 2002 writing assessment for the nation at grades 4, 8, and 12 and for participating states and other jurisdictions at grades 4 and 8. Assessment results are described in terms of their average writing score on a 0–300 scale and in terms of the percentage of students attaining each of three achievement levels: *Basic*, *Proficient*, and *Advanced*.

The achievement levels are performance standards adopted by the National Assessment Governing Board (NAGB) as part of its statutory responsibilities. The achievement levels are a collective judgment of what students should know and be able to do for each grade tested. As provided by law, NCES, upon review of a congressionally mandated evaluation of NAEP, determined that the achievement levels are to be considered developmental and should be interpreted with caution. However, both the Commissioner and the Board believe that 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 of academic performance.

The results presented in this report are based on representative samples of students for the nation and for participating states and other jurisdictions. Approximately 276,000 students from 11,000 schools were assessed. The national results reflect the performance of students attending both public and nonpublic schools, while the state and jurisdiction results reflect only the performance of students attending public schools. Information about writing achievement for students in selected urban school districts is presented in the NAEP 2002 Trial Urban District Assessment of writing.¹

In addition to providing average scores and achievement level performance in writing for the nation and states and other jurisdictions, this report provides results for subgroups of students defined by various background characteristics. A summary of major findings from the NAEP 2002 assessment is presented on the following pages. Comparisons are made to national results from the 1998 assessment. The NAEP 1998 writing assessment was not administered at the state/jurisdiction level at grade 4; therefore, state-level comparisons are presented only for grade 8. Changes in student performance across years or differences between groups of students in 2002 are discussed only if they have been determined to be statistically significant at the 0.05 level.

Overall Writing Results for the Nation and the States

Writing Results for the Nation

- Students' average scores on the NAEP writing assessment increased between 1998 and 2002 at grades 4 and 8. However, no significant change was detected in the performance of twelfth-graders between the two assessment years.
- Fourth-grade writing scores at the 10th to the 90th percentiles increased between 1998 and 2002. This means that the performance of high, middle, and low performing students improved between the two years. Gains were observed among the middle- and higher-performing students at grade 8. At grade 12, only the score at the 90th percentile increased since 1998, while scores at the 10th and 25th percentiles were lower in 2002.
- In 2002, between 24 and 31 percent of the students in each of the three grades performed at or above the *Proficient* level. Fourth- and eighth-graders made overall gains since 1998 in reaching the *Proficient* level. There was no significant change detected in the percentage of twelfth-graders at or above *Proficient*; however the percentage of twelfth-graders at or above *Basic* decreased since 1998.

¹ Lutkus, A. D., Daane, M. C., Weiner, A. W., and Jin, Y. *The Nation's Report Card: Trial Urban District Assessment, Writing 2002*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Writing Results for the States and Other Jurisdictions

Results from the 2002 assessment are reported for 48 states and other jurisdictions at grades 4, and 47 states and other jurisdictions at grade 8. Results are reported only for public-school students at the state or jurisdiction level.

At grade 4

- In 2002, fourth-grade average scores were higher than the national average score in 17 jurisdictions, and lower than the national average in 22 jurisdictions.
- Connecticut, Massachusetts, and Delaware were among the highest performing jurisdictions at grade 4. The average writing scores in Connecticut and Massachusetts were higher than in any of the other participating jurisdictions. Massachusetts was only outperformed by Connecticut. Students in Delaware were only outperformed by students in Connecticut and Massachusetts and had higher scores than the other participating jurisdictions except New York.

At grade 8

- Of the 36 jurisdictions that participated in both the 1998 and 2002 eighth-grade writing assessment, 16 showed score increases in 2002 and none showed a significant decrease.
- The percentage of eighth-graders at or above *Proficient* increased in 17 jurisdictions and decreased in 1 jurisdiction since 1998.
- Connecticut, Department of Defense domestic and overseas schools, Massachusetts, and Vermont were among the highest performing jurisdictions at grade 8.

National and State Writing Results for Student Subgroups

In addition to overall results for the nation and for the states and jurisdictions, NAEP reports on the performance of various subgroups of students. Observed differences between student subgroups in NAEP writing performance most likely reflect the interaction of a range of socioeconomic and educational factors not addressed in this report or by NAEP.

National Results

Gender

- The average scores of male and female fourth- and eighth-graders were higher in 2002 than in 1998; however, at grade 12, the average scores for male students declined.
- The percentages of female students performing at or above *Proficient* increased since 1998 at all three grades, and the percentage of male students performing at or above *Proficient* increased at grades 4 and 8.
- In 2002, female students had higher average scores than male students at all three grades.
- In 2002, females outperformed males on average by 17 points at grade 4, 21 points at grade 8, and 25 points at grade 12. The decline in the average score for male twelfth-graders between 1998 and 2002 resulted in an increase in the gap between male and female students.

Race/Ethnicity

- At grades 4 and 8, White, Black, and Hispanic students had higher average writing scores in 2002 than in 1998.
- The percentages of students performing at or above *Proficient* increased since 1998 among White, Black, Hispanic, and Asian/Pacific Islander students at grade 4 and among White, Black, and Hispanic students at grade 8.
- At grade 4, Asian/Pacific Islander students outperformed all other groups in 2002, and White students outperformed Black, Hispanic, and American Indian/Alaska Native students. At grade 8, White and Asian/Pacific Islander students scored higher on average than Black, Hispanic, and American Indian/Alaska Native students. At grade 12, White and Asian/Pacific Islander students scored higher on average than Black and Hispanic students, and Hispanic students had higher scores than Black students.
- In 2002, the score gap between White and Black fourth-graders was smaller than in 1998.

Eligibility for Free/Reduced-Price Lunch

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

- Average fourth- and eighth-grade writing scores in 2002 were higher than in 1998 for students who were eligible for free/reduced-price lunch, as well as for those who were not eligible.
- The percentages of fourth- and eighth-graders at or above *Proficient* were higher in 2002 than in 1998 for students who were eligible and those who were not eligible for free/reduced-price lunch.
- In 2002, the average writing score for students who were eligible for free/reduced-price lunch was lower than that of students who were not eligible at all three grades.

Title I Participation

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

- In 2002, students at all three grades who attended schools that participated in Title I, had lower average writing scores than students who attended schools that did not participate in Title I.

Parents' Level of Education (reported by students)

- There was a positive relationship between higher levels of parental education as reported by students and student achievement: for both eighth- and twelfth-graders, the higher the parental education level, the higher the average writing score. (Information about parental education was not collected at grade 4.)

Type of School

- The average writing scores for fourth- and eighth-grade public-school students were higher in 2002 than in 1998.
- In 2002, at all three grades, students who attended nonpublic schools had higher average writing scores than students who attended public schools. At grade 8, students who attended Catholic schools had higher scores than those attending other nonpublic schools.

Type of School Location

- Students in urban fringe schools had higher average writing scores than their peers in central city schools and rural schools at all three grades. Fourth- and eighth-grade students in rural schools had higher scores than their peers in central city schools, while the reverse was true at grade 12.

State and Jurisdiction Results

Gender

- At grade 8, average scores were higher in 2002 than in 1998 for both male and female students in 12 jurisdictions, for female students only in 1 jurisdiction, and for male students only in 2 jurisdictions.
- In 2002, females had higher average scores than males in all the participating jurisdictions at both grades 4 and 8.

Race/Ethnicity

- At grade 8, average scores increased since 1998 for White students in 15 jurisdictions, for Black students in 9 jurisdictions, for Hispanic students in 4 jurisdictions, and for students classified as Other in 1 jurisdiction.
- Score increases were observed for two or more racial/ethnic subgroups of eighth-graders in the following jurisdictions: Arkansas, Delaware, Florida, Louisiana, Maryland, Missouri, North Carolina, South Carolina, and Washington.

Free/Reduced-Price Lunch

- At grade 8, average scores increased since 1998 for both those students who were eligible for free/reduced-price lunch and those who were not eligible in 11 jurisdictions, for eligible students in 1 jurisdiction, and for students who were not eligible in 4 jurisdictions.

1

Introduction

Writing is a fundamental skill for individuals and for civilizations. Writing enables us to record and reflect on our experiences, to communicate with others, and to preserve a common culture. In our democratic society, writing is a central form of discourse. A healthy and civil society requires citizens who are able to state a case carefully and to reason with others persuasively. Thus, writing has always been an important feature of school curricula from the early elementary grades through high school and post-secondary education. In a technology-based, electronically dependent economy, the ability to write clearly is a critical skill for advancing knowledge, enhancing competence, posing new ideas, and making those ideas comprehensible to an information-dependent citizenry.¹

The National Assessment of Educational Progress (NAEP) reports on writing assessments are an important source of information on students' writing achievement. This report presents major results from the NAEP 2002 writing assessment of the nation's fourth-, eighth-, and twelfth-grade students. In addition, it provides results for fourth- and eighth-grade students in states and other jurisdictions that participated in the 2002 assessment. Finally, the report compares students' 2002 performance to their performance in 1998. The report is intended to inform educators, policymakers, parents, and the general public about students' achievement in writing.

¹ Scardamalia, M. and Bereiter, C. (1991). Literate Expertise. In K. A. Ericsson and J. Smith (Eds.), *Toward a General Theory of Expertise: Prospects and Limits*, pp. 172–19. New York: Cambridge University Press.

Overview of the 2002 National Assessment of Educational Progress in Writing

For more than 30 years, NAEP has regularly collected, analyzed, and reported valid and reliable information about what American students know and can do in a variety of subject areas. As authorized by the U.S. Congress, NAEP assesses representative national samples of fourth-, eighth-, and twelfth-grade students.

Since 1990, NAEP has also assessed representative samples of fourth- and eighth-grade students in states and other jurisdictions that participate in the NAEP state-by-state assessments in several subjects. NAEP is administered and overseen by the National Center for Education Statistics (NCES), in the U.S. Department of Education's Institute of Education Sciences (IES).

The content of all NAEP assessments is determined by subject-area frameworks that are developed by the National Assessment Governing Board (NAGB). The framework for the NAEP writing assessment guided development of the assessment that was first administered in 1998 and most recently in 2002.

The assessment was first given nationally to fourth-, eighth-, and twelfth-graders in 1998. State-level assessments using the same instrument as that used nationally were conducted only at grade 8 in 1998.

The 2002 assessment was conducted at grades 4, 8, and 12 nationally, and at grades 4 and 8 within the states and other jurisdictions that participated in the state-level assessment. Throughout this report, national results from the 2002 assessment are compared to those from 1998 at all three grades. Comparisons of results for states and other jurisdictions that participated in both the 1998 and 2002 assessments at grade 8 are also presented.

Framework for the 1998 and 2002 Writing Assessments

The NAEP 1998 writing framework is the blueprint that has specified the content and guided the development of the 1998 and 2002 writing assessments.² The framework establishes the assessment objectives and provides direction for the kinds of writing tasks to be included in the instrument. The framework is a product of a nationwide process involving many parties concerned about writing education, including teachers, state education officials, subject-area specialists, researchers, and representatives of the general public. This effort was managed by the Center for Research on Evaluation, Standards, and Student Testing (CRESST), under the direction of NAGB. NAGB also contracted with ACT to provide detailed guidelines for the kinds of writing tasks to include in the assessment.

² National Assessment Governing Board. *Writing Framework and Specifications for the 1998 National Assessment of Educational Progress*. Washington, DC: Author.

The NAEP writing framework, informed by current research and theory, emphasizes that writing addresses a variety of purposes and audiences. The framework discusses three purposes for writing: **narrative** (telling a story), **informative** (informing the reader), and **persuasive** (persuading the reader). To ensure that NAEP writing

assessments reflect the genres receiving the most instructional emphasis, the framework prescribes that NAEP writing tasks focus on these three purposes at all three grade levels (4, 8, and 12).³ Descriptions of narrative, informative, and persuasive writing appear in figure 1.1.

Figure 1.1 Descriptions of the three purposes for writing in the NAEP writing assessment

Purposes for Writing	
Narrative writing	<p>Narrative writing encourages writers to incorporate their imagination and creativity in the production of stories or personal essays. At its best, narrative writing fosters imagination, creativity, and speculation by allowing writers to express their thoughts and emotions, and offers an opportunity for writers to analyze and understand their actions and those of others.</p> <p>The narrative tasks included in the NAEP 2002 writing assessment asked students to write many kinds of stories (most fiction, some nonfiction). Some of the tasks asked students to write in response to photographs, drawings, cartoons, poems, or stories (provided with the assessment).</p>
Informative writing	<p>In informative writing, the writer provides the reader with information. Informative writing may involve reporting on events or experiences or analyzing concepts and relationships. When used as a means of exploration, informative writing helps both the writer and the reader to learn new ideas and to reexamine old conclusions.</p> <p>Informative tasks in the NAEP 2002 writing assessment asked students to write on specified subjects using many kinds of information, such as newspaper articles, charts, photographs, or reported dialogues (provided with the assessment), as well as their own knowledge. Students could write in a variety of formats, such as reports, newspaper articles, and letters.</p>
Persuasive writing	<p>Persuasive writing seeks to persuade the reader to take action or to bring about change. This type of writing involves a clear awareness of what arguments might most affect the audience being addressed. Writing persuasively also requires the use of such skills as analysis, inference, synthesis, and evaluation.</p> <p>Persuasive tasks in the NAEP 2002 writing assessment asked students to write letters to the editor or to friends, to refute arguments, or to take sides in a debate.</p>

SOURCE: National Assessment Governing Board. *Writing Framework and Specifications for the 1998 National Assessment of Educational Progress*. Washington, DC: Author.

³ On the importance of specifying purpose in writing instruction, see Oliver, E. (1989). Effects of Assignment on Writing Quality at Four Grade Levels. *English Quarterly* 21(4), 224–32.

Gentile, C. A., Martin-Rehrmann, J., and Kennedy, J. H. (1995). *Windows into the Classroom: NAEP's 1992 Portfolio Study* (NCES 95–035). Washington, DC: U.S. Dept. of Education, Office of Educational Research and Development, National Center for Education Statistics.

Applebee, A. N., Langer, J. A., Jenkins, L., Mullis, I. V. S., and Foertsch, M. (1990). *Learning to Write in Our Nation's Schools: Instruction and Achievement in 1988 at Grades 4, 8, and 12*. Princeton, NJ: Educational Testing Service.

As the framework notes, the purposes for writing are not always completely discrete. For example, a narrative essay may make a persuasive moral or ethical point, and a letter to an editor or congressional representative may include pertinent facts and information. In fact, many of the students whose writing received high ratings used integrated forms of presentation. The professional raters who evaluated the student responses were instructed not to penalize such blended presentations.

The emphasis on each purpose for writing varies from grade to grade to match the differing levels of student development and instructional focus. The assessment emphasized narrative writing for fourth-graders, gave comparable weight to all three purposes for eighth-graders, and stressed persuasive writing for twelfth-graders. Table 1.1 shows both the percentage and actual number of tasks for each writing purpose at each grade level in the 2002 assessment. These distributions match the target percentages established by the framework.

Table 1.1 Distribution of writing tasks, by purpose for writing, in the NAEP 2002 writing assessment, grades 4, 8, and 12

	Purpose for writing	Percentage of tasks	Number of tasks
Grade 4	Narrative	40	8
	Informative	35	7
	Persuasive	25	5
Grade 8	Narrative	35	7
	Informative	35	7
	Persuasive	30	6
Grade 12	Narrative	25	5
	Informative	35	7
	Persuasive	40	8

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

In addition to specifying the percentage of the assessment that should be devoted to each writing purpose, the framework specifies several elements of writing that should pertain to writing tasks across the assessment. When constructing writing assessment tasks, test developers consider various aspects of writing that are important for motivating student engagement in the assessment tasks.

A writing task is usually a short text or visual stimulus, posing a situation, concern, or topic about which students are asked to write under a stated time constraint. The 2002 assessment used many tasks that specified the writer's audience. Some students were asked to write, for example, a letter to a friend or to a school board. Students also had opportunities to write in a variety of forms, such as essays, letters, reports, and stories. Writing tasks may have used any of a variety of stimuli to evoke written responses, including photographs, cartoons, drawings, newspaper articles, letters, or literary works, such as poems or stories. In addition, students received a brief brochure with suggestions for planning and revising their writing.

To meet the framework's objective that students value writing as a communicative activity, background questions on the assessment asked students about their view of themselves as writers and their writing practices at home and at school. Data for these background questions are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard/naepdata>).

The 2002 NAEP Writing Assessment Instrument

So that the assessment reflects the NAEP writing framework and expert perspectives on the measurement of writing, it undergoes stringent review by teachers, teacher educators, state officials, and measurement specialists during the development process. All components of the assessment are evaluated for curricular relevance, developmental appropriateness, fairness, and adherence to the framework and test specifications. The 2002 writing assessment included twenty 25-minute tasks each at grades 4, 8, and 12.

To minimize the burden on any one student, NAEP uses a procedure referred to as matrix sampling, in which different students at any given grade are administered only a small portion of the entire assessment. At each grade, students received test booklets with two 25-minute tasks. A representative sample of students at each grade received each task, and the results were combined to produce average group and subgroup results based on the entire assessment. In addition to the writing tasks in each student's test booklet, students were asked to complete two sections of background questions regarding their home or school experiences related to writing achievement. In total, the time required for each student to participate in the 2002 NAEP writing assessment was no more than 1 hour.

School and Student Samples

At the national level, results are reported for both public- and nonpublic-school students. At the state or jurisdiction level, results are reported only for public-school students. In order to obtain a representative sample of students for reporting national and state or jurisdiction results, approximately 3,000 students from approximately 100 schools per state or jurisdiction were sampled. In each state that did not participate, a small number of students proportionate to the number of students in that state were sampled to contribute to the national sample. The total sampled for the 2002 writing assessment included approximately 139,200 fourth-grade students in 5,500 schools; 118,500 eighth-graders in 4,700 schools; and 18,500 twelfth-graders in 700 schools. Each selected school and student participating in the assessment represents a portion of the total population. The administration procedures for the 2002 assessment permitted testing accommodations for students with disabilities and limited English proficient students who required them in order to participate. For information on sample sizes and participation rates by state or jurisdiction, see appendix A.

Evaluating Students' Writing on the NAEP Assessment

Student responses in the NAEP 2002 writing assessment were evaluated according to scoring guide criteria describing six performance levels: Unsatisfactory, Insufficient, Uneven, Sufficient, Skillful, and Excellent. Scoring guides were developed for narrative, informative, and persuasive

writing at each grade level. A scale of 1 to 6 representing these performance levels was used to evaluate each student response. The guides included specific notes for raters describing various student approaches to the task and offering anchor or prototypical student responses at each grade level. For each task, a wide spectrum of student approaches was judged acceptable. Acknowledging developmental differences between fourth-, eighth-, and twelfth-grades, the scoring guides (presented in chapter 6) reflect higher performance expectations for students in higher grades. Following the framework, the scoring guides emphasize students' abilities to develop and elaborate ideas, organize their thoughts, and write grammatically correct prose. The criteria for measuring command of written English mechanics differed by grade, but were the same across the three purposes for writing (narrative, informative, and persuasive) within each grade.

To give students an opportunity to plan their writing, NAEP provided a page for students to engage in such planning activities as rough drafts, outlines, lists, diagrams, and pictures. Students, although not required to plan their writing, were also given pamphlets with ideas about planning, editing, and revising writing and were encouraged to utilize them in the assessment. Recognizing that a time-controlled writing context constrains students' opportunities to plan and revise, responses to assessment tasks were viewed as first drafts and evaluated accordingly. (Further information about scoring is located in chapter 5.)

Reporting the Writing Assessment Results

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

Student responses to all tasks were analyzed to determine the percentage of students scoring at each level on the 6-level guides for narrative, informative, and persuasive writing. The analysis entails summarizing the results on separate subscales for each writing purpose and then combining the separate scales to form a single composite writing scale. This analysis yields the overall scale of 0 to 300 for each of the grades, 4, 8, and 12. Performance for each grade is scaled separately; therefore, average scale scores cannot be compared across grades. For example, equal scores on grade 4 and grade 8 scales do not imply equal levels of writing ability. (See the section on data analysis and IRT scaling in appendix A for more information on scaling procedures.)

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

The Setting of Achievement Levels

The 1988 NAEP legislation that created the National Assessment Governing Board (NAGB) directed the Board to identify “appropriate achievement goals . . . for each subject area” that NAEP measures.⁴ The 2001 NAEP reauthorization reaffirmed many of the Board's statutory responsibilities, including developing “appropriate student achievement levels for each grade or age in each subject area to be tested”⁵ In order to follow this directive and achieve the mandate of the 1988 statute “to improve the form and use of NAEP results,” NAGB undertook the development of student performance standards (called “achievement levels”). Since 1990, the Board has adopted achievement levels in mathematics, reading, U.S. history, geography, science, writing, and civics.

⁴ National Education Statistics Act, National Assessment of Educational Progress Improvement Act, Pub. L. No. 100–297, 20 U.S.C. §1221 *et seq.* (1988).

⁵ No Child Left Behind Act of 2001, Pub. L. No. 107–110, 115 Stat. 1425 (2002).

The Board defined three achievement levels for each grade. The *Basic* level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade. The *Proficient* level represents solid academic performance. Students reaching this level demonstrate competency over challenging subject matter. The *Advanced* level presumes mastery of both the *Basic* and *Proficient* levels and represents superior performance. Figure 1.2 presents the policy definitions of the achievement levels that apply across grades and subject areas. The policy definitions guided the development of the writing achievement levels, as well as the achievement levels established in all other subject areas. Adopting three levels of achievement for each grade signals the importance of looking at more than one standard of performance. In the Board’s view, the overall achievement goal for American students is performance that qualifies at the *Proficient* level or higher as measured by NAEP. The *Basic* level is not the desired goal, but rather represents partial mastery that is a step toward *Proficient*.

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

The results of the achievement level setting process, after NAGB’s approval, become a set of achievement level descriptions and a set of achievement level cut scores on the 0–300 NAEP writing scale. These levels are used to describe student performance on the 1998 and 2002 writing assessments.

Figure 1.2 Policy definitions of the three NAEP achievement levels

Achievement Levels	
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.

SOURCE: National Assessment Governing Board. *Writing Framework and Specifications for the 1998 National Assessment of Educational Progress*. Washington, DC: Author.

Writing Achievement Level Descriptions for Each Grade

Specific definitions of the writing achievement levels for grades 4, 8, and 12 are presented in figures 1.3 through 1.5. As noted previously, the achievement levels are cumulative. Therefore, students performing at the *Proficient* level also display the competencies associated with the *Basic* level, and students at the *Advanced* level also demon-

strate the competencies associated with both the *Basic* and the *Proficient* levels. For each achievement level listed in figures 1.3 through 1.5, the scale score that corresponds to the lowest cut score of that level on the NAEP writing scale is shown in parentheses. For example, in figure 1.3 the scale score of 176 corresponds to the lowest score of the grade 4 *Proficient* level of achievement in writing.

Figure 1.3 Descriptions of NAEP writing achievement levels, grade 4

Grade 4 Achievement Levels

The following statements describe the kinds of things fourth-grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress (NAEP) in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of “ideas for planning and reviewing” their writing for the assessment. Although the Writing NAEP cannot fully assess students’ abilities to produce a polished piece of writing, the results do provide valuable information about students’ abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

Basic (115) *Fourth-grade students performing at the Basic level should be able to produce a somewhat organized and detailed response within the time allowed that shows a general grasp of the writing task they have been assigned.*

Fourth-grade students performing at the *Basic* level should be able to produce a somewhat organized response within the time allowed that shows a general grasp of the writing task they have been assigned. Their writing should include some supporting details. Its grammar, spelling, and capitalization should be accurate enough to communicate to a reader, although there may be mistakes that get in the way of meaning.

Proficient (176) *Fourth-grade students performing at the Proficient level should be able to produce an organized response within the time allowed that shows an understanding of the writing task they have been assigned. Their writing should include details that support and develop their main idea, and it should show that these students are aware of the audience they are expected to address.*

Fourth-grade students performing at the *Proficient* level should be able to produce an organized response within the time allowed that shows an understanding of the writing task they have been assigned. Their writing should include details that support and develop the main idea of the piece, and its form, content, and language should show that these students are aware of the audience they are expected to address. The grammar, spelling, and capitalization in the work should be accurate enough to communicate to a reader; there may be some mistakes, but these should not get in the way of meaning.

Advanced (225) *Fourth-grade students performing at the Advanced level should be able to produce an effective, well developed response within the time allowed that shows a clear understanding of the writing task they have been assigned and the audience they are expected to address. Their writing should include details and be clearly organized, should use precise and varied language, and may show signs of analytical, evaluative, or creative thinking.*

Fourth-grade students performing at the *Advanced* level should be able to produce an effective, well developed response within the time allowed that shows a clear understanding of the writing task they have been assigned. Their writing should be clearly organized, making use of techniques such as consistency in topic or theme, sequencing, and a clearly marked beginning and ending. It should make use of precise and varied language to speak to the audience the students are expected to address, and it should include details and elaboration that support and develop the main idea of the piece. Their writing may also show signs of analytical, evaluative, or creative thinking. The grammar, spelling, and capitalization in the work should be accurate enough to communicate clearly; mistakes should be so few and so minor that a reader can easily skim over them.

SOURCE: National Assessment Governing Board. (2001). *National Assessment of Educational Progress Achievement Levels, 1992–1998 for Writing*. S.C. Loomis and M.L. Bourque (Eds.). Washington, DC: Author.

Figure 1.4 Descriptions of NAEP writing achievement levels, grade 8

Grade 8 Achievement Levels

The following statements describe the kinds of things eighth-grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress (NAEP) in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of “ideas for planning and reviewing” their writing for the assessment. Although the Writing NAEP cannot fully assess students’ abilities to produce a polished piece of writing, the results do provide valuable information about students’ abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

Basic
(114) ***Eighth-grade students performing at the Basic level should be able to produce an effective response within the time allowed that shows a general understanding of the writing task they have been assigned. Their writing should show that these students are aware of the audience they are expected to address, and it should include supporting details in an organized way.***

Eighth-grade students performing at the *Basic* level should be able to produce an effective response within the time allowed that shows a general understanding of the writing task they have been assigned. Their writing should show that these students are aware of the audience they are expected to address, and it should include supporting details in an organized way. The grammar, spelling, punctuation, and capitalization in the work should be accurate enough to communicate to a reader, although there may be mistakes that get in the way of meaning.

Proficient
(173) ***Eighth-grade students performing at the Proficient level should be able to produce a detailed and organized response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should include precise language and varied sentence structure, and it may show analytical, evaluative, or creative thinking.***

Eighth-grade students performing at the *Proficient* level should be able to produce an effective response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should be organized, making use of techniques such as sequencing or a clearly marked beginning and ending, and it should make use of details and some elaboration to support and develop the main idea of the piece. Their writing should include precise language and some variety in sentence structure, and it may show analytical, evaluative, or creative thinking. The grammar, spelling, punctuation, and capitalization in the work should be accurate enough to communicate to a reader; there may be some errors, but these should not get in the way of meaning.

Advanced
(224) ***Eighth-grade students performing at the Advanced level should be able to produce a fully developed response within the time allowed that shows a clear understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking and may make use of literary strategies to clarify a point. At the same time, the writing should be clearly organized, demonstrating precise word choice and varied sentence structure.***

Eighth-grade students performing at the *Advanced* level should be able to produce an effective and fully developed response within the time allowed that shows a clear understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking, and should demonstrate precise word choice and varied sentence structure. Their work should include details and elaboration that support and develop the main idea of the piece, and it may make use of strategies such as analogies, illustrations, examples, anecdotes, or figurative language to clarify a point. At the same time, the writing should show that these students can keep their work clearly and consistently organized. Writing by eighth-grade students performing at the *Advanced* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate good control of these elements and may use them for stylistic effect in their work.

SOURCE: National Assessment Governing Board. (2001). *National Assessment of Educational Progress Achievement Levels, 1992–1998 for Writing*. S.C. Loomis and M.L. Bourque (Eds.). Washington, DC: Author.

Figure 1.5 Descriptions of NAEP writing achievement levels, grade 12

Grade 12 Achievement Levels

The following statements describe the kinds of things twelfth-grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress (NAEP) in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of “ideas for planning and reviewing” their writing for the assessment. Although the Writing NAEP cannot fully assess students’ abilities to produce a polished piece of writing, the results do provide valuable information about students’ abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

Basic
(122) *Twelfth-grade students performing at the Basic level should be able to produce a well-organized response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking, and it should include details that support and develop the main idea of the piece.*

Twelfth-grade students performing at the *Basic* level should be able to produce an effective response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking. It should include details that support and develop the central idea of the piece, and it should be clearly organized, making use of techniques such as consistency in topic or theme, sequencing, and a clear introduction and conclusion. The grammar, spelling, punctuation, and capitalization in these students’ work should be accurate enough to communicate to a reader; there may be some errors, but these should not get in the way of meaning.

Proficient
(178) *Twelfth-grade students performing at the Proficient level should be able to produce an effectively organized and fully developed response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should include details that support and develop the main idea of the piece, and it should show that these students are able to use precise language and variety in sentence structure to engage the audience they are expected to address.*

Twelfth-grade students performing at the *Proficient* level should be able to produce an effective and fully developed response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be organized effectively, and it should show that these students have a clear understanding of the writing task they have been assigned. It should be coherent, making use of techniques such as a consistent theme, sequencing, and a clear introduction and conclusion, and it should include details and elaboration that support and develop the main idea of the piece. The writing should show that these students are able to use precise language and variety in sentence structure to engage the audience they are expected to address. Writing by twelfth-grade students performing at the *Proficient* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate a command of these elements and may use them for stylistic effect in their work.

Advanced
(230) *Twelfth-grade students performing at the Advanced level should be able to produce a mature and sophisticated response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be detailed and fully developed, and it should show that these students are able to use literary strategies to develop their ideas. At the same time, the writing should be well crafted and coherent, and it should show that these students are able to engage the audience they are expected to address through rich and compelling language, precise word choice, and variety in sentence structure.*

Twelfth-grade students performing at the *Advanced* level should be able to produce a mature and sophisticated response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be fully developed, incorporating details and elaboration that support and extend the main idea of the piece. It should show that these students can use literary strategies— anecdotes and repetition, for example—to develop their ideas. At the same time, the writing should be well crafted, organized, and coherent, and it should incorporate techniques such as a consistency in topic or theme, sequencing, and a clear introduction and conclusion. It should show that these writers can engage the audience they are expected to address through rich and compelling language, precise word choice, and variety in sentence structure. Writing by twelfth-grade students performing at the *Advanced* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate a sophisticated command of these elements and may use them for stylistic effect in their work.

SOURCE: National Assessment Governing Board. (2001). *National Assessment of Educational Progress Achievement Levels, 1992–1998 for Writing*. S.C. Loomis and M.L. Bourque (Eds.). Washington, DC: Author.

Trial Status of Achievement Levels

As provided by law and based upon a review of congressionally mandated evaluation of NAEP, NCES has determined that achievement levels are to be used on a trial basis and should be used with caution until NCES determines their validity. In 1993, the first of several congressionally mandated evaluations of the achievement level setting process concluded that the procedures used to set the achievement levels were flawed and that the percentage of students at or above any particular achievement level cut point may be underestimated.⁶ Others have critiqued these evaluations, asserting that the weight of the empirical evidence does not support such conclusions.⁷

In response to the evaluations and critiques, NAGB conducted an additional study of the 1992 reading achievement levels before deciding to use them for reporting 1994 NAEP results.⁸ When reviewing the findings of this study, the National Academy of Education (NAE) panel expressed concern about what it saw

as a “confirmatory bias” in the study and about the inability of this study to “address the panel’s perception that the levels had been set too high.”⁹ In 1997, the NAE panel summarized its concerns about interpretation of NAEP results based on the achievement levels as follows:

First, the potential instability of the levels may interfere with the accurate portrayal of trends. Second, the perception that few American students are attaining the higher standards we have set for them may deflect attention to the wrong aspects of education reform. The public has indicated its interest in benchmarking against international standards, yet it is noteworthy that when American students performed very well on a 1991 international reading assessment, these results were discounted because they were contradicted by poor performance against the possibly flawed NAEP reading achievement levels in the following year.¹⁰

⁶ United States General Accounting Office. (1993). *Education Achievement Standards: NAGB’s Approach Yields Misleading Interpretations*. U.S. General Accounting Office Report to Congressional Requestors. Washington, DC: Author.

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

⁷ Cizek, G. (1993). *Reactions to National Academy of Education Report*. Washington, DC: National Assessment Governing Board.

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

⁸ American College Testing. (1995). *NAEP Reading Revisited: An Evaluation of the 1992 Achievement Level Descriptions*. Washington, DC: National Assessment Governing Board.

⁹ National Academy of Education. (1996). Reading Achievement Levels. In *Quality and Utility: The 1994 Trial State Assessment in Reading. The Fourth Report of the National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment*. Stanford, CA: Author.

¹⁰ National Academy of Education. (1997). *Assessment in Transition: Monitoring the Nation’s Educational Progress*, p. 99. Mountain View, CA: Author.

NCES and NAGB continue to seek new and better ways to set performance standards on NAEP.¹¹ For example, NCES and NAGB jointly sponsored a national conference on standard setting in large-scale assessments, which explored many issues related to standard setting.¹² Although new directions were presented and discussed, a proven alternative to the current process has not yet been identified. NCES and NAGB continue to call on the research community to assist in finding ways to improve standard setting for reporting NAEP results.

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

validity evidence for the cut scores is lacking; and the process has produced unreasonable results.”¹³

The NAS panel accepted the continuing use of achievement levels in reporting NAEP results on a trial basis, until such time as better procedures can be developed. Specifically, the NAS panel concluded that “. . . tracking changes in the percentages of students performing at or above those cut scores (or in fact, any selected cut scores) can be of use in describing changes in student performance over time.”¹⁴

NAGB urges all who are concerned about student performance levels to recognize that the use of these achievement levels is a developing process and is subject to various interpretations. NAGB and NCES believe that the achievement levels are useful for reporting trends in the educational achievement of students in the United States.¹⁵ In fact, achievement level results have been used in reports by the President of the United States, the Secretary of Education, state governors, legislators, and members of Congress. Government leaders in the nation and in more than 40 states use these results in their annual reports.

¹¹ Reckase, M. D. (2000). *The Evolution of the NAEP Achievement Level Setting Process. A Summary of the Research and Development of Efforts Conducted by ACT*. Iowa City, IA: ACT, Inc.

¹² National Assessment Governing Board and National Center for Education Statistics. (1995). *Proceedings of the Joint Conference on Standard Setting for Large-Scale Assessments of the National Assessment Governing Board (NAGB) and the National Center for Education Statistics (NCES)*. Washington, DC: Government Printing Office.

¹³ Pellegrino, J. W., Jones, L. R., and Mitchell, K. J. (Eds.). (1999). *Grading the Nation's Report Card: Evaluating NAEP and Transforming the Assessment of Educational Progress*. Committee on the Evaluation of National and State Assessments of Educational Progress, Board on Testing and Assessment, Commission on Behavioral Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.

¹⁴ *Ibid.*, 176.

¹⁵ Forsyth, R. A. (2000). A Description of the Standard-Setting Procedures Used By Three Standardized Test Publishers. In M. L. Bourque, (Ed.), *Student Performance Standards on the National Assessment of Educational Progress: Affirmations and Improvements*. Washington, DC: National Assessment Governing Board. Available <http://www.nagb.org/pubs>

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

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

Interpreting NAEP Results

The average scores and percentages presented in this report are estimates based on samples of students rather than on entire populations. Moreover, the collection of questions used at each grade level is but a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP writing framework. As such, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of a few points plus or minus the score or percentage—which accounts for potential score or percentage fluctuation due to sampling and measurement error. The estimated standard errors for the estimated scale scores and percentages in this report are accessible through the NAEP Data Tool on the NAEP web site (<http://nces.ed.gov/nationsreportcard/naepdata>). Examples of these estimated standard errors are also provided in appendix A, tables A.8 to A.12, of this report.

The differences between scale scores and between percentages discussed in the following chapters take into account the standard errors associated with the estimates. Comparisons are based on statistical tests that consider both the magnitude of the difference between the group average scores or percentages and the standard errors of those statistics. Estimates based on smaller subgroups are likely to have relatively large standard errors. As a consequence, some seemingly large differences may not be statistically significant. That is, it cannot be determined whether these differences are due to the particular makeup of the samples of students who are selected, or to true differences in the population of interest. When this is the case, the term “apparent difference” is used in this report. Differences between scores or between percentages are discussed in this report only when they are significant from a statistical perspective. All differences reported are significant at the .05 level (with appropriate adjustments for comparison between multiple subgroups of students). The term “significant” is intended to identify statistically dependable differences in average scores or percentages and not to imply a judgment about the absolute magnitude or the educational relevance of the differences.

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

Overview of the Remaining Report

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

Chapter 4 presents sample writing tasks and sample student responses representing varying score levels at each grade. In addition, item maps for each grade level describe the skill needed to respond to particular writing tasks and show the score points at which individual students had a high probability of successfully writing in response to particular tasks, thereby indicating the relative difficulty of each task.

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

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

Overview

This chapter presents the NAEP 2002 writing results for public- and nonpublic-school students in the nation at grades 4, 8, and 12 and for public-school students in participating states and jurisdictions at grades 4 and 8. Average scores on the NAEP writing composite scale range from 0 to 300; the three writing achievement levels are *Basic*, *Proficient*, and *Advanced*.

In addition to the results from the 2002 writing assessment, results are presented from 1998 for the nation at all three grades and for participating states and other jurisdictions at grade 8. There was no state-level assessment at grade 4 in 1998. At grades 4 and 8, the national sample in 2002 was a subset of the combined sample of students assessed in each participating state plus an additional sample from the states that did not participate in the state assessment. Although results were presented by region of the country (Northeast, South, Central, and West) in previous reports, regional data are not presented in this year's report because low participation in some states that did not participate in the state assessment made the comparative data for two of the regions less reliable than in the past.

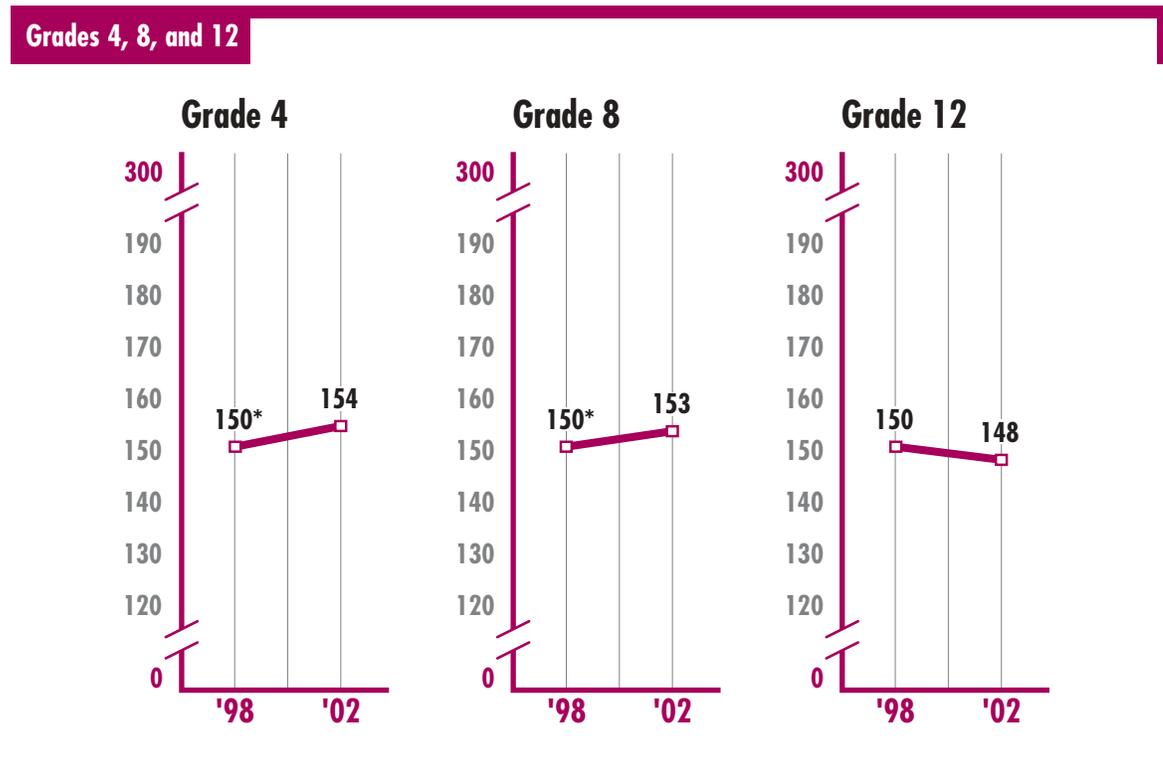
National Writing Scale Score Results

Figure 2.1 displays the average writing scores from 1998 and 2002 for fourth-, eighth-, and twelfth-graders. Results for each grade are scaled independently; therefore, cross-grade score comparisons cannot be made. Students'

average scores on the NAEP writing assessment increased between 1998 and 2002 at grades 4 and 8. However, there

was no significant change detected in the performance of twelfth-graders between the two assessment years.

Figure 2.1 Average writing scale scores, grades 4, 8, and 12: 1998 and 2002



*Significantly different from 2002.

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

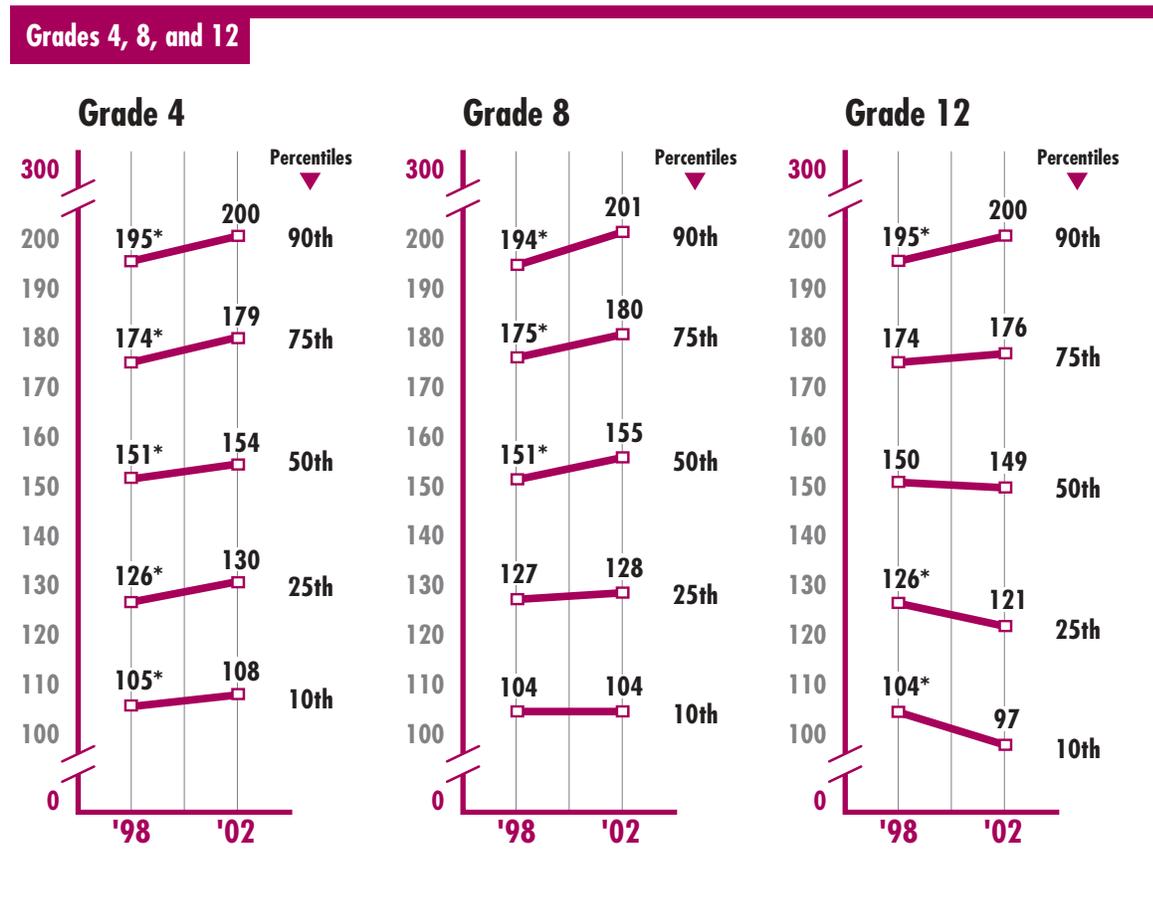
National Writing Scale Scores by Percentile

Another way to view students' performance is by looking at how scores have changed across the performance distribution. An examination of scores at different percentiles on the 0–300 writing scale at each grade indicates whether or not the changes seen in the overall national average score results are reflected in the performance of lower-, middle-, and higher-performing students. Results for each grade are scaled independently; therefore, cross-grade score comparisons cannot be made. Figure 2.2 shows the average writing scale score for students scoring at the 10th, 25th, 50th, 75th, and 90th percentiles at all three

grade levels. The percentile indicates the percentage of students whose scores fell below a particular point on the NAEP writing scale. For example, the 75th percentile score at grade 4 was 179 in 2002, indicating that 75 percent of fourth-graders scored below 179.

Increases in fourth-grade writing scores were observed across the distribution. Gains were observed among the middle- and higher-performing students at grade 8; no significant changes were detected at the 10th and 25th percentiles. At grade 12, only the score at the 90th percentile increased since 1998, while scores at the 10th and 25th percentiles were lower in 2002.

Figure 2.2 Writing scale score percentiles, grades 4, 8, and 12: 1998 and 2002



*Significantly different from 2002.

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

National Writing Achievement Level Results

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

Figure 2.3 tracks the percentages of students performing at or above *Basic* and at or above *Proficient*—the level identified by NAGB as the level at which all students should perform—across assessment years.

Table 2.1 presents the achievement level results in two ways for each grade: as the percentage of students within each achievement level, and as the percentage of students at or above the *Basic* level and at or above the *Proficient* level. The percentages at or above specific achievement levels are cumulative. Included among the percentage of students at or above the *Basic* level are those who have achieved the *Proficient* and *Advanced* levels of performance. Included among students at or above the *Proficient* level are those who

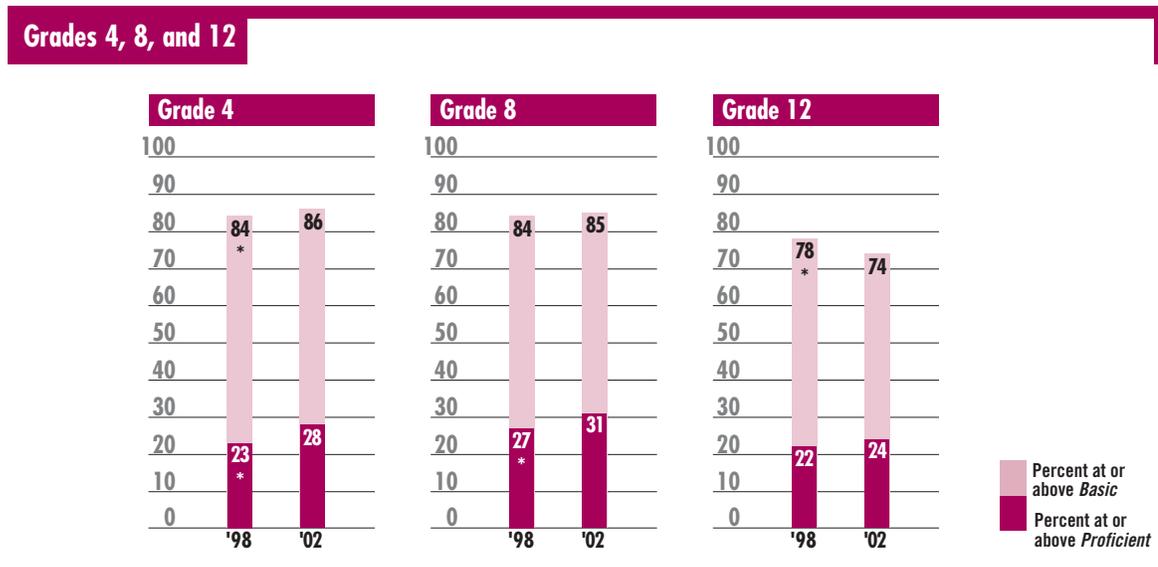
have attained the *Advanced* level of performance. Although significant differences in the percentages of students within achievement levels are indicated in the table, only the differences at or above *Basic*, at or above *Proficient*, and at *Advanced* are discussed in this section.

In 2002, between 24 and 31 percent of the students in each of the three grades performed at or above the *Proficient* level. Figure 2.3 shows that fourth- and eighth-graders have made overall gains since 1998 in reaching the *Proficient* level, while there was no significant change detected in the percentage of twelfth-graders at or above this level over the same period of time.

As shown in more detail in table 2.1, trends in achievement level results are

generally consistent with trends in average scale score results since 1998 that are described in the previous section. The percentages of fourth-graders at or above *Basic* and at or above *Proficient* increased over the period between the 1998 and 2002 assessments. No significant change was observed in the percentage of eighth-graders performing at or above *Basic*, while the percentage of eighth-grade students performing at or above *Proficient* increased over the same interval. The percentage of twelfth-graders performing at or above *Basic* decreased since 1998. Although only 2 percent of the students in each grade performed at the *Advanced* level in 2002, this did reflect an increase over the percentages in 1998.

Figure 2.3 Percentage of students at or above *Basic* and *Proficient* in writing, grades 4, 8, and 12: 1998 and 2002



* Significantly different from 2002.

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

Table 2.1 Percentage of students, by writing achievement level, grades 4, 8, and 12: 1998 and 2002

	Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4						
1998	16 *	61 *	22 *	1 *	84 *	23 *
2002	14	58	26	2	86	28
Grade 8						
1998	16	58 *	25 *	1 *	84	27 *
2002	15	54	29	2	85	31
Grade 12						
1998	22 *	57 *	21	1 *	78 *	22
2002	26	51	22	2	74	24

* Significantly different from 2002.

NOTE: Percentages within each writing 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), 1998 and 2002 Writing Assessments.

Writing Results for States and Other Jurisdictions

In addition to the national results, writing performance data were collected for fourth- and eighth-grade students attending public schools in states and other jurisdictions that chose to participate in the 2002 assessment.¹ Although 50 jurisdictions participated in the 2002 writing assessment at grade 4, and 50 participated at grade 8, not all met minimum school participation guidelines for reporting their results. (See appendix A for details on participation and reporting guidelines.) Results from the 2002 assessment are not included for Illinois and Wisconsin at grades 4 and 8, and for Minnesota at grade 8, because they did not meet the minimum weighted school participation rate of 70 percent. Jurisdictions that did not meet one or more of the other participation guidelines are noted in each

of the tables. Information about students' writing achievement in selected urban school districts (Atlanta, Chicago, Houston, Los Angeles, and New York City) is available in the *NAEP Trial Urban District Assessment Writing 2002*.

Results are presented for jurisdictions that participated in the 2002 writing assessment at grade 4, and in the 1998 and 2002 assessments at grade 8. Tables presenting state level results at grade 8 indicate statistically significant changes across years when examining only one jurisdiction at a time (*), or when using a multiple comparison procedure based on all the jurisdictions that participated (**). Differences discussed in this report are based on statistically significant findings detected using either comparison procedure. (See appendix A for a more detailed discussion of comparison procedures.)

¹ Throughout this chapter the term jurisdiction is used to refer to the states, territories, and Department of Defense schools that participated in the NAEP writing assessments.

Writing Scale Score Results by State/Jurisdiction

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

tables represent the performance of public-school students only.

Average fourth-grade scores ranged from 125 to 174. Of the 36 jurisdictions that participated in both the 1998 and 2002 eighth-grade writing assessments, 16 showed score increases in 2002, and none showed a significant decrease.

Table 2.2 Average writing scale scores, grade 4 public schools: By state, 2002

Grade 4	2002
Nation (Public)	153
Alabama	140
Arizona	140
Arkansas	145
California †	146
Connecticut	174
Delaware	163
Florida	158
Georgia	149
Hawaii	149
Idaho	150
Indiana	154
Iowa †	155
Kansas †	149
Kentucky	154
Louisiana	142
Maine	158
Maryland	157
Massachusetts	170
Michigan	147
Minnesota †	156
Mississippi	141
Missouri	151
Montana †	149
Nebraska	154
Nevada	145
New Mexico	142
New York †	163
North Carolina	159
North Dakota †	150
Ohio	157
Oklahoma	142
Oregon	149
Pennsylvania	156
Rhode Island	157
South Carolina	145
Tennessee †	149
Texas	154
Utah	145
Vermont	158
Virginia	157
Washington †	158
West Virginia	147
Wyoming	150
Other Jurisdictions	
District of Columbia	135
DDESS ¹	156
DoDDS ²	159
Guam	131
Virgin Islands	125

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

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

Grade 8	1998	2002
Nation (Public) ¹	148 *	152
Alabama	144	142
Arizona	143	141
Arkansas	137 **,*	142
California †	141	144
Colorado	151	—
Connecticut	165	164
Delaware	144 **,*	159
Florida	142 **,*	154
Georgia	146	147
Hawaii	135	138
Idaho	—	151
Indiana	—	150
Kansas †	—	155
Kentucky	146	149
Louisiana	136 **,*	142
Maine	155	157
Maryland	147 **,*	157
Massachusetts	155 **,*	163
Michigan	—	147
Minnesota †	148	—
Mississippi	134 **,*	141
Missouri	142 **,*	151
Montana †	150	152
Nebraska	—	156
Nevada	140	137
New Mexico	141	140
New York †	146 **,*	151
North Carolina	150 **,*	157
North Dakota †	—	147
Ohio	—	160
Oklahoma	152	150
Oregon †	149 *	155
Pennsylvania	—	154
Rhode Island	148 **,*	151
South Carolina	140 **,*	146
Tennessee †	148	148
Texas	154	152
Utah	143	143
Vermont	—	163
Virginia	153	157
Washington †	148 **,*	155
West Virginia	144	144
Wisconsin †	153	—
Wyoming	146 **,*	151
Other Jurisdictions		
American Samoa	—	95
District of Columbia	126	128
DDESS ²	160	164
DoDDS ³	156 **,*	161
Guam	—	130
Virgin Islands	124	128

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

² Department of Defense Domestic Dependent Elementary and Secondary Schools.

³ Department of Defense Dependents Schools (Overseas).

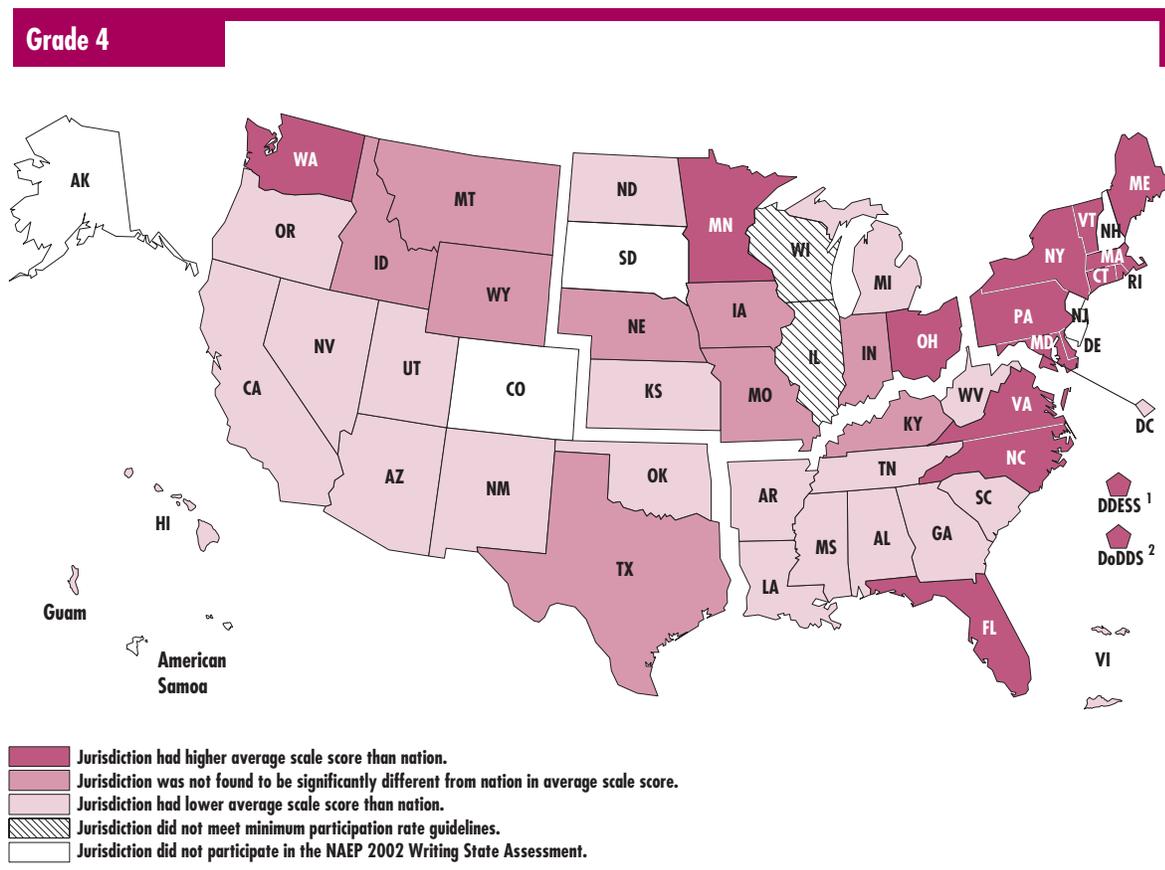
NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

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

The maps in figures 2.4 and 2.5 compare state and national average writing scores in 2002 at grades 4 and 8 respectively. At grade 4, 17 jurisdictions had scores that were higher than the national average scores, 22 had scores that were lower than the national average, and no significant differences were detected between the

jurisdiction and national averages for 9 jurisdictions. At grade 8, 12 jurisdictions had scores that were higher than the national average scores, 20 had scores that were lower than the national average, and no significant differences were detected between the state and national average for 15 jurisdictions.

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

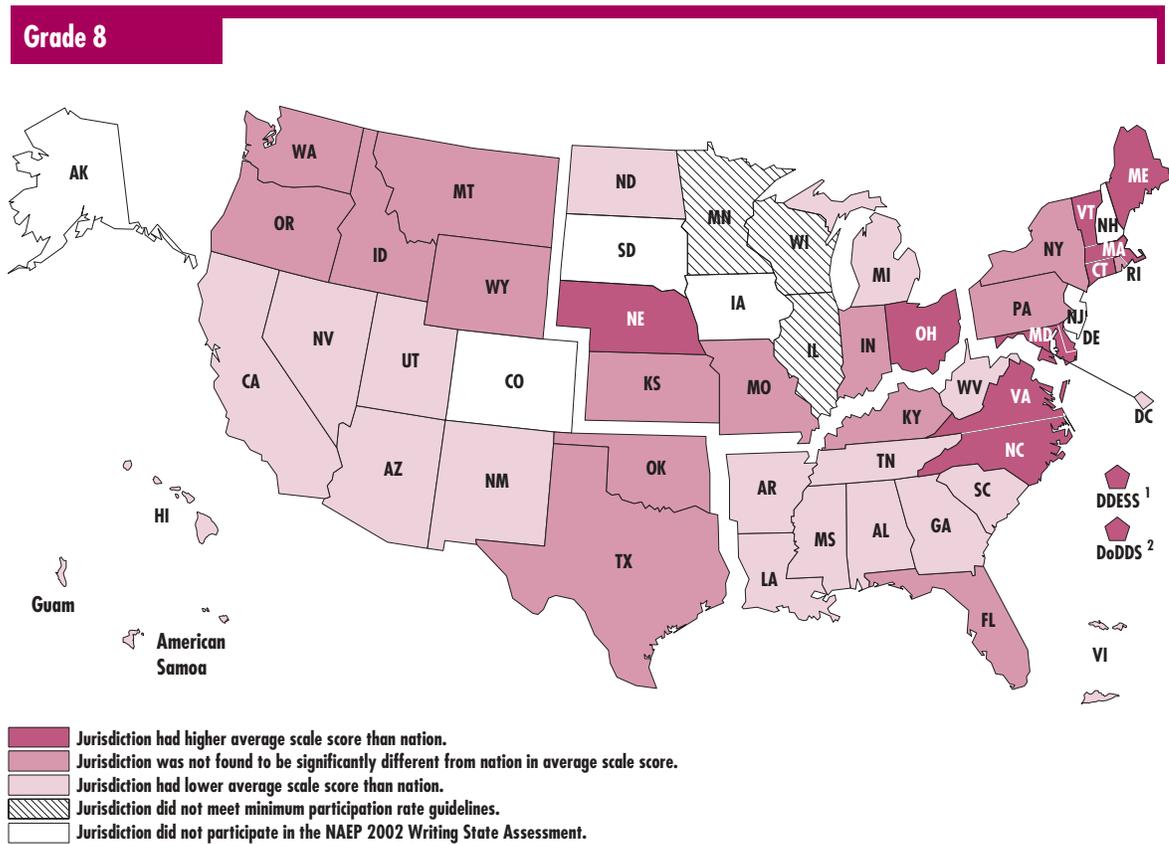


¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

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



¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Cross-State/Jurisdiction Writing Scale Score Comparisons

Figures 2.6 and 2.7 display the differences in the NAEP 2002 average writing scale scores between any two participating jurisdictions at grades 4 and 8 respectively. These figures are set up similarly to mileage charts on travel maps. On the line across the top of the figure, find the name of the target jurisdiction and follow the column below the target jurisdiction to the jurisdiction chosen for comparison. If the cell of

the comparison jurisdiction is not shaded, no statistically significant difference between the scale scores of the two jurisdictions was detected. If the cell of the comparison jurisdiction is lightly shaded, the average scale score of that jurisdiction was higher than the scale score of the target jurisdiction named at the top of the column. Darkly shaded cells indicate that the average scale score of the comparison jurisdiction was lower than that of the target jurisdiction selected at the top of the column.

At grade 4, Connecticut, Massachusetts, and Delaware were among the highest performing jurisdictions. The average writing score in Connecticut was higher than in any of the other participating jurisdictions. Massachusetts was outperformed only by Connecticut. Students in Delaware were outperformed only by students in Connecticut and Massachusetts and had higher scores than the other participating jurisdictions except New York.

At grade 8, Connecticut, Department of Defense domestic and overseas schools, Massachusetts, and Vermont were among the highest performing jurisdictions, and were not found to differ significantly from each other and had higher scores than the other participating jurisdictions except Ohio.

Writing Achievement Level Results by State/Jurisdiction

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

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

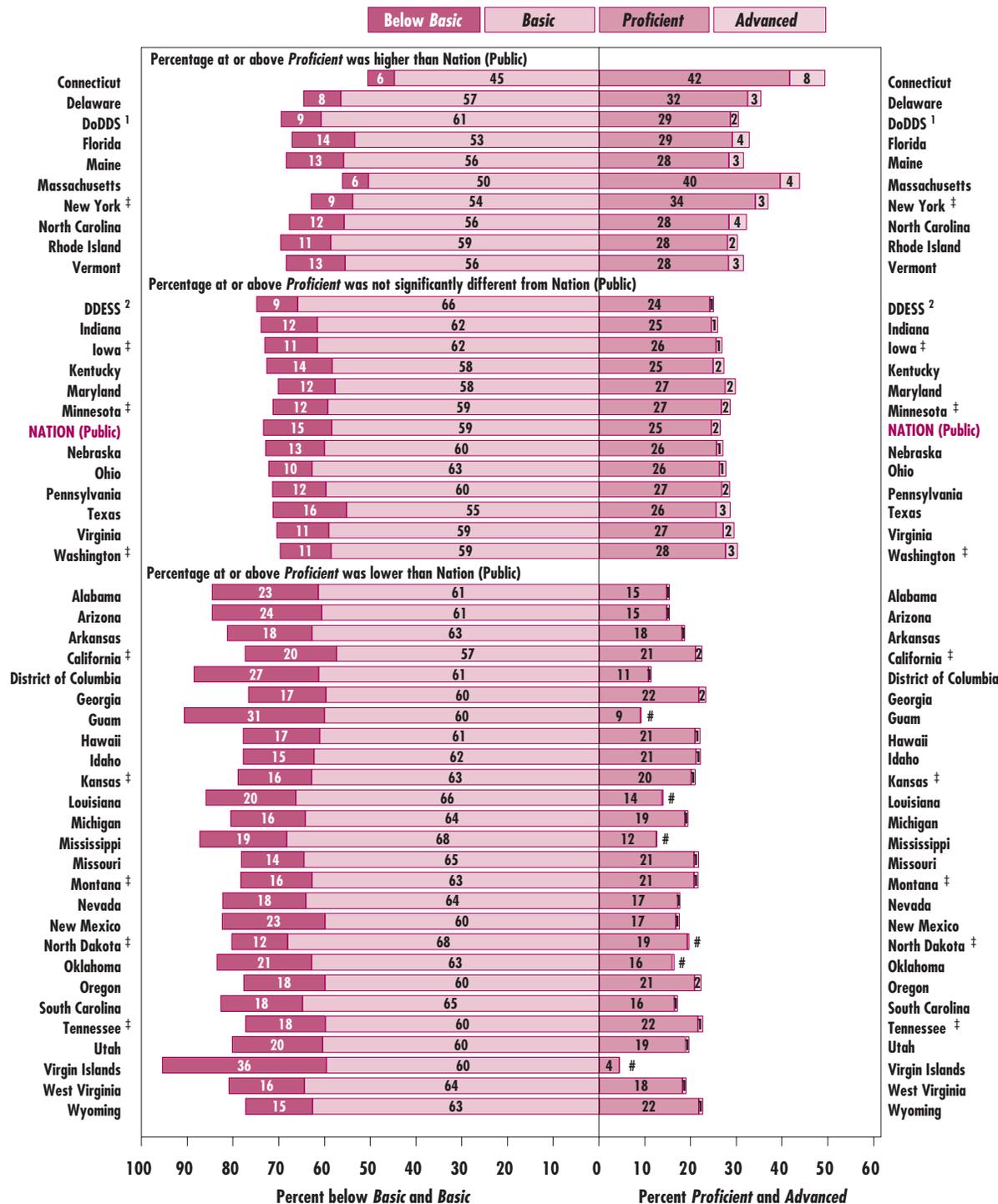
Figure 2.8 shows that, at grade 4, 10 jurisdictions had higher percentages of students performing at or above the *Proficient* level than the nation, 12 had percentages that were not found to differ significantly from the nation, and 26 had percentages that were lower than the nation.

In figure 2.9, the results for grade 8 show 10 jurisdictions with higher percentages of students performing at or above the *Proficient* level than the nation, 15 with percentages that were not found to differ significantly from the nation, and 22 with percentages that were lower than the nation.

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

Grade 4

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



Percentage rounds to zero.

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

¹ Department of Defense Dependents Schools (Overseas).

² Department of Defense Domestic Dependent Elementary and Secondary Schools.

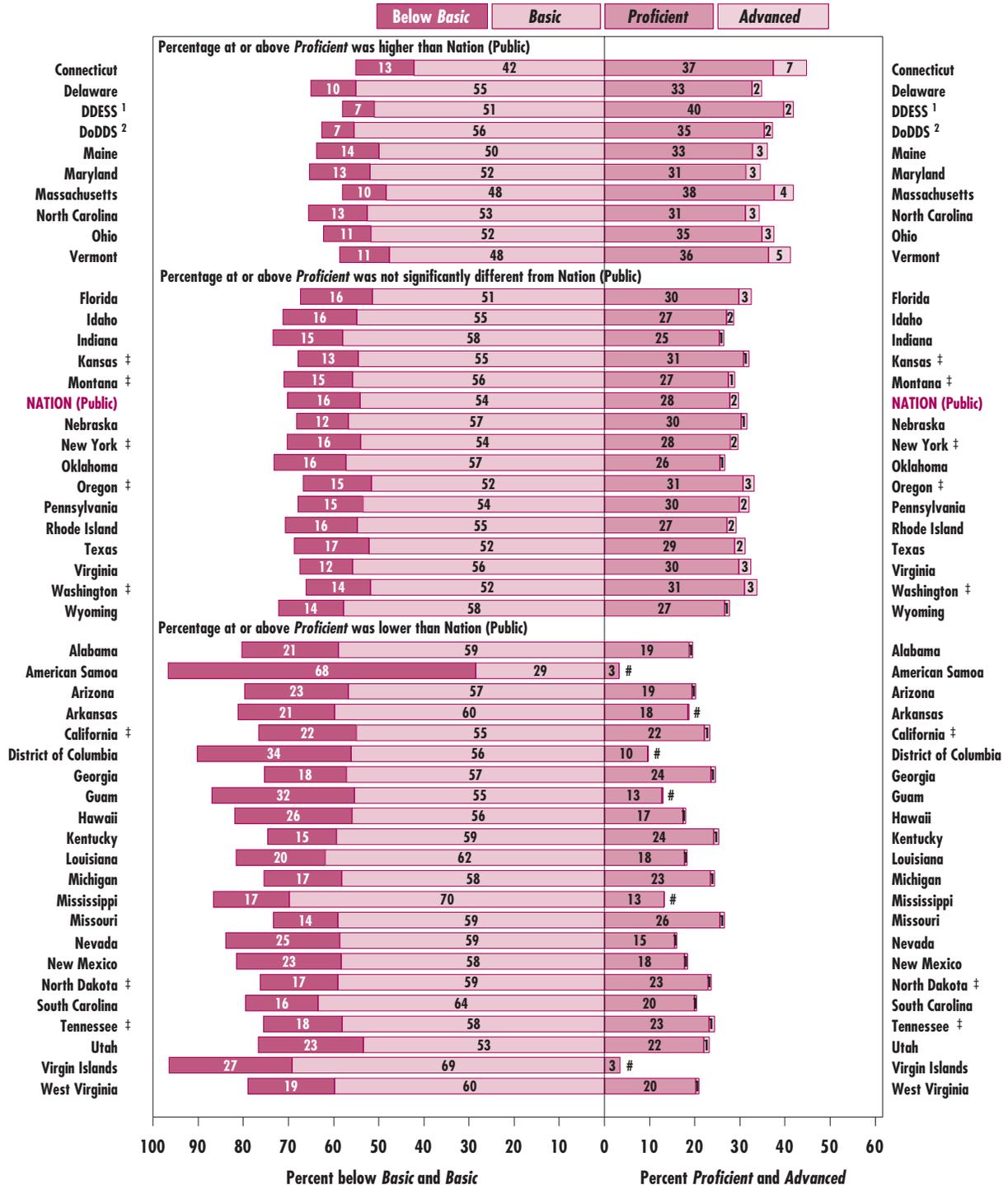
NOTE: Percentages may not add to 100 due to rounding.

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

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

Grade 8

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



Percentage rounds to zero.

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² Department of Defense Dependents Schools (Overseas).

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

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

The percentage of fourth-graders performing at or above the *Proficient* level for each jurisdiction that participated in the 2002 assessment is presented in table 2.4. The percentage of fourth-graders performing at or above the *Proficient* level ranged from 4 to 49 percent.

The percentages of eighth-graders at or above *Proficient* for jurisdictions that participated in 1998 and 2002 are presented in table 2.5. The percentage of eighth-graders performing at or above *Proficient* increased since 1998 in 17 jurisdictions, and decreased in 1 jurisdiction.

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

Grade 4	2002
Nation (Public)	27
Alabama	15
Arizona	15
Arkansas	19
California †	23
Connecticut	49
Delaware	35
Florida	33
Georgia	23
Hawaii	22
Idaho	22
Indiana	26
Iowa †	27
Kansas †	21
Kentucky	27
Louisiana	14
Maine	32
Maryland	30
Massachusetts	44
Michigan	19
Minnesota †	29
Mississippi	13
Missouri	22
Montana †	22
Nebraska	27
Nevada	18
New Mexico	18
New York †	37
North Carolina	32
North Dakota †	20
Ohio	28
Oklahoma	16
Oregon	22
Pennsylvania	29
Rhode Island	30
South Carolina	17
Tennessee †	23
Texas	29
Utah	20
Vermont	32
Virginia	29
Washington †	30
West Virginia	19
Wyoming	23
Other Jurisdictions	
District of Columbia	11
DDESS ¹	25
DoDDS ²	30
Guam	9
Virgin Islands	4

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

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

Grade 8	1998	2002
Nation (Public) ¹	24 *	30
Alabama	17	20
Arizona	21	20
Arkansas	13 **	19
California †	20	23
Colorado	27	—
Connecticut	44	45
Delaware	22 **, **	35
Florida	19 **	32
Georgia	23	25
Hawaii	15 *	18
Idaho	—	29
Indiana	—	26
Kansas †	—	32
Kentucky	21	25
Louisiana	12 **	18
Maine	32	36
Maryland	23 **	35
Massachusetts	31 **	42
Michigan	—	24
Minnesota †	25	—
Mississippi	11	13
Missouri	17 **, **	27
Montana †	25	29
Nebraska	—	32
Nevada	17	16
New Mexico	18	18
New York †	21 **	30
North Carolina	27 **, **	34
North Dakota †	—	24
Ohio	—	38
Oklahoma	25	27
Oregon †	27 **, **	33
Pennsylvania	—	32
Rhode Island	25 **, **	29
South Carolina	15 **	20
Tennessee †	24	24
Texas	31	31
Utah	21	23
Vermont	—	41
Virginia	27 *	32
Washington †	25 **, **	34
West Virginia	18	21
Wisconsin †	28	—
Wyoming	23 *	28
Other Jurisdictions		
American Samoa	—	3
District of Columbia	11	10
DDESS ²	38	42
DoDDS ³	31 **, **	37
Guam	—	13
Virgin Islands	9 *	3

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

² Department of Defense Domestic Dependent Elementary and Secondary Schools.

³ Department of Defense Dependents Schools (Overseas).

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

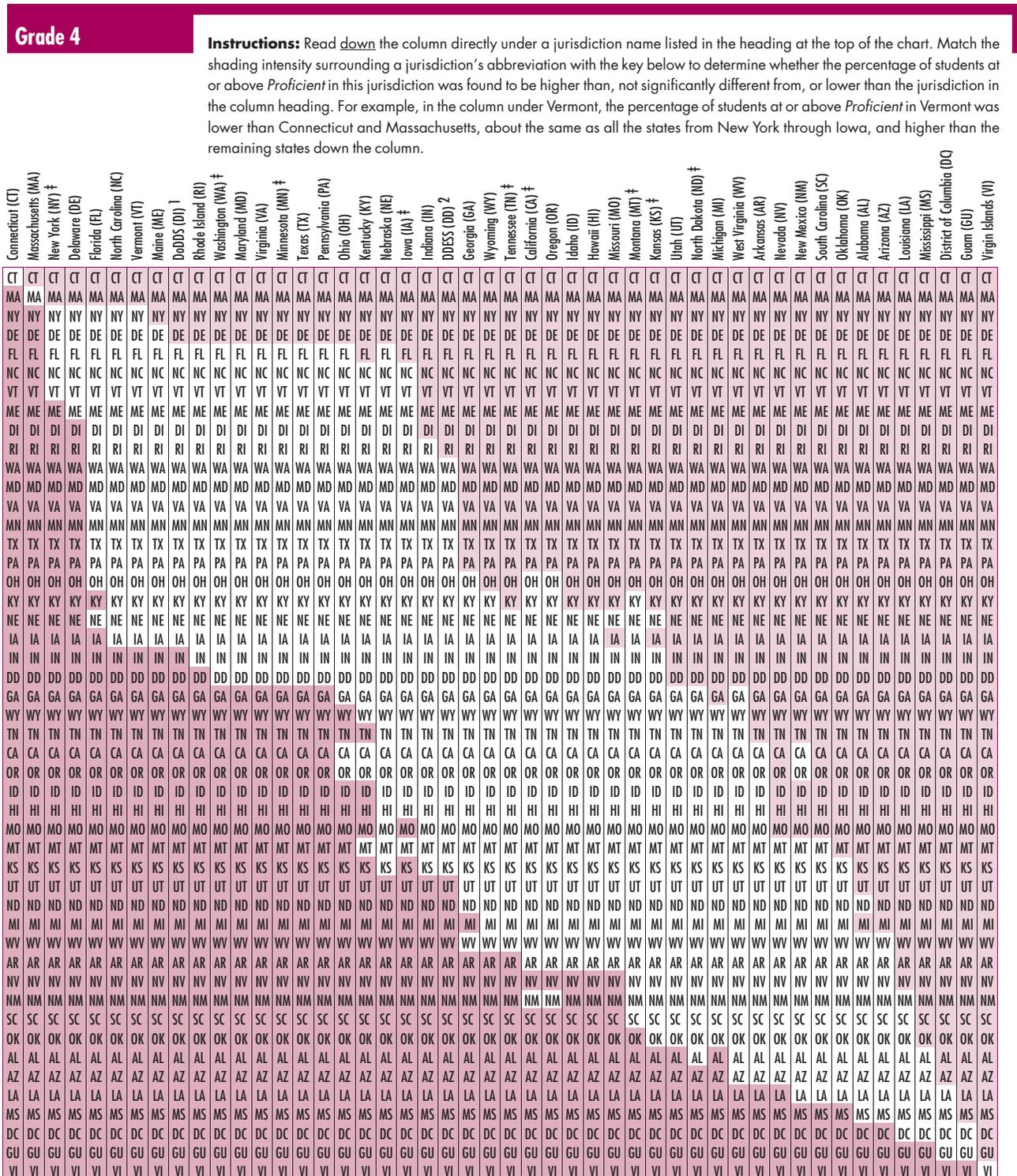
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Writing Assessments.

Cross-State/Jurisdiction Writing Achievement Level Comparisons

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

At grade 4, Connecticut had a higher percentage of students performing at or above *Proficient* than Massachusetts, and both had higher percentages than the other participating jurisdictions. At grade 8, Connecticut, Massachusetts, Department of Defense domestic schools, and Vermont were among the states with the highest percentages of students performing at or above *Proficient*, but were not found to differ significantly from each other.

Figure 2.10 Cross-state comparison of percentage of students at or above Proficient in writing, grade 4 public schools: 2002



- Jurisdiction had higher percentage than the jurisdiction listed at the top of the figure.
- No significant difference detected from the jurisdiction listed at the top of the figure.
- Jurisdiction had lower percentage than the jurisdiction listed at the top of the figure.

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

¹ Department of Defense Dependents Schools (Overseas).

² Department of Defense Domestic Dependent Elementary and Secondary Schools.

NOTE: The between-jurisdiction comparisons take into account sampling and measurement error and that each jurisdiction is being compared with every other jurisdiction. Significance is determined by an application of a multiple-comparison procedure (see appendix A).

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

Figure 2.11 Cross-state comparison of percentage of students at or above Proficient in writing, grade 8 public schools: 2002

Grade 8

Instructions: Read down the column directly under a jurisdiction name listed in the heading at the top of the chart. Match the shading intensity surrounding a jurisdiction's abbreviation with the key below to determine whether the percentage of students at or above Proficient in this jurisdiction was found to be higher than, not significantly different from, or lower than the jurisdiction in the column heading. For example, in the column under Delaware, the percentage of students at or above Proficient in Delaware was lower than Connecticut, Department of Defense Domestic Schools, Massachusetts, and Vermont, about the same as all the states from Ohio through Texas, and higher than the remaining states down the column.

Connecticut (CT)	Delaware (DE)	Florida (FL)	Georgia (GA)	Idaho (ID)	Illinois (IL)	Indiana (IN)	Iowa (IA)	Kansas (KS)	Kentucky (KY)	Louisiana (LA)	Maine (ME)	Massachusetts (MA)	Michigan (MI)	Minnesota (MN)	Mississippi (MS)	Missouri (MO)	Montana (MT)	Nebraska (NE)	Nevada (NV)	New Hampshire (NH)	New Jersey (NJ)	New Mexico (NM)	New York (NY)	North Carolina (NC)	North Dakota (ND)	Ohio (OH)	Oklahoma (OK)	Oregon (OR)	Pennsylvania (PA)	Rhode Island (RI)	South Carolina (SC)	South Dakota (SD)	Tennessee (TN)	Texas (TX)	Utah (UT)	Vermont (VT)	Virginia (VA)	Washington (WA)	West Virginia (WV)	Wisconsin (WI)	Wyoming (WY)	District of Columbia (DC)	Virgin Islands (VI)	American Samoa (AS)
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
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CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	ME	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	DC	VI	AS
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3

Subgroup Results for the Nation and States

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

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

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

Performance of Selected Subgroups for the Nation

Gender

In recent years, educators and researchers have produced a number of studies documenting gender differences in writing performance. Some of these studies focus on qualitative differences between the writing produced by boys and that produced by girls.¹ Other studies examine quantitative differences in language use and writing performance by gender.²

Results from the NAEP writing assessment reflect similar patterns in performance between male and female students.

Figure 3.1 presents national average writing scale scores for male and female students in grades 4, 8, and 12, across assessment years. In 2002, female students outperformed their male peers at all three grades. The average scores of male and female fourth-graders and eighth-graders were higher in 2002 than in 1998; however, at grade 12 the average scores for male students declined, while no change in the average scores for female students was detected during the same interval.

¹ Levine, T., and Goldman-Caspar, Z. (1996). Informal Science Writing Produced by Boys and Girls: Writing Preference and Quality. *British Educational Research Journal* 22(4), 421–439.

Peterson, S. (2001). Gender Identities and Self-Expression in Classroom Narrative Writing. *Language Arts* 78(5), 451–457.

Thomas, P. (1994). Writing, Reading, and Gender. *Gifted Education International*, 9(3), 154–158.

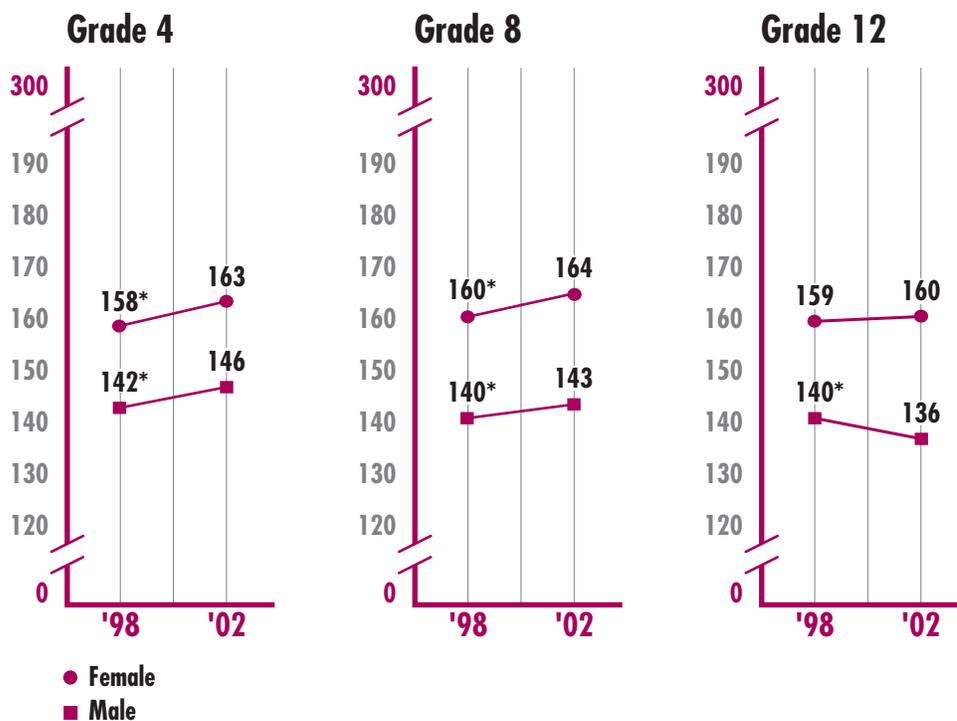
² Ashmore, R., and Shields, C. (2002). The Achievement Gap. A Comparison of Anglo and Navajo Student Writing Samples. *Planning and Changing*, 33(1), 91–105.

Berninger, V. W., and Fuller, F. (1992). Gender Differences in Orthographic, Verbal and Compositional Fluency: Implications for Assessing Writing Disabilities in Primary Grade Children. *Journal of School Psychology*, 30(4), 363–382.

Hoff Sommers, C. (2000). *The War Against Boys*. New York: Simon and Schuster.

Figure 3.1 Average writing scale scores, by gender, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12



* Significantly different from 2002.

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

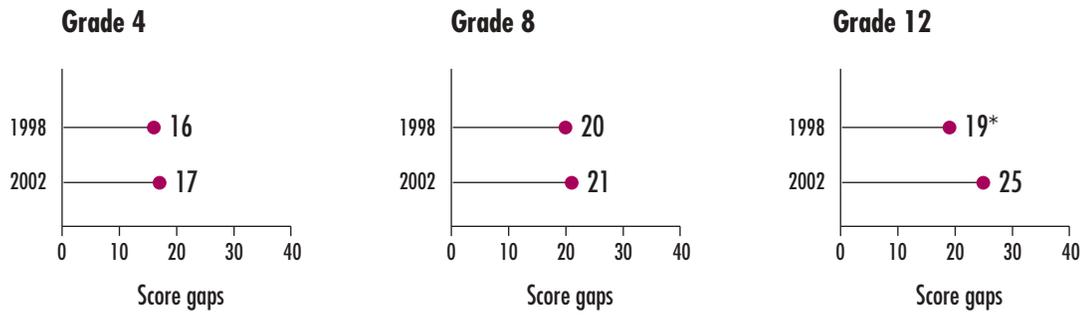
Another way to compare student performance is to determine whether there is a difference or “gap” between the subgroup average scores and whether that gap increases or decreases between assessment years. The scale score gaps between male and female students are presented in figure 3.2. In 2002, the difference in average writing scale scores favoring females was

17 points at grade 4, 21 points at grade 8, and 25 points at grade 12. Between 1998 and 2002, no significant change was detected in the scale score gap between male and female students at grades 4 and 8; however, a significant increase in the gap between males and females was noted at grade 12.

Figure 3.2 Gaps in average writing scale scores, by gender, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12

Female average score minus male average score



*Significantly different from 2002.

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

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

Table 3.1 displays achievement level information for the national sample of fourth-, eighth-, and twelfth-graders both as the percentages of male and female students within each achievement level range and as the percentages of male and female students at or above the *Basic* and *Proficient* levels. At grade 4, the percentages of male and female students performing at or above *Basic* and at or above *Proficient* were higher in 2002 than in 1998. At grade 8, the percentages of both males and females performing at or above *Proficient* increased since 1998. At grade 12, the

percentage of male students performing at or above *Basic* was lower in 2002 than in 1998. While the percentage of female twelfth-graders performing at or above *Proficient* increased since 1998, no change in the percentage of male students performing at or above *Proficient* was observed for the same time period.

Higher percentages of female students performed at or above the *Basic* and *Proficient* levels, and at *Advanced*, than their male peers in all three grades.

Table 3.1 Percentage of students, by writing achievement level and gender, grades 4, 8, and 12: 1998 and 2002

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4								
Male	1998		21 *	63	16 *	1 *	79 *	16 *
	2002		19	61	19	1	81	20
Female	1998		11 *	59 *	28 *	2 *	89 *	30 *
	2002		9	55	33	3	91	36
Grade 8								
Male	1998		22	61 *	17 *	# *	78	17 *
	2002		21	58	20	1	79	21
Female	1998		9	55 *	34 *	2 *	91	36 *
	2002		9	50	38	3	91	42
Grade 12								
Male	1998		30 *	56 *	14	#	70 *	14
	2002		37	49	13	1	63	14
Female	1998		14	58 *	27	1 *	86	29 *
	2002		15	52	30	3	85	33

Percentage rounds to zero.

* Significantly different from 2002.

NOTE: Percentages within each writing 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), 1998 and 2002 Writing Assessments.

Race/Ethnicity

In recent years, much has been written about apparent differences in academic achievement between students from varying racial/ethnic backgrounds. A number of researchers have documented successful efforts to narrow these achievement discrepancies between subgroups.³ However, differences at some performance levels and for a number of variables continue to be detected.⁴

Based on information obtained from school records, students who participated in the NAEP 1998 and 2002 writing assessments were identified as belonging to one of the following racial/ethnic subgroups: White, Black, Hispanic, Asian/Pacific Islander, American Indian (including Alaska Native), and Other. The distribution over these six categories is shown in table B.2 in appendix B. The 1998 results presented in this report differ from those in the 1998 writing report card in which results were reported for five racial/ethnic subgroups based on student reports. Table

3.2 and figure 3.3 show the average writing scale scores of students in each of the six categories at grades 4, 8, and 12.

At grades 4 and 8, White, Black, and Hispanic students had higher average writing scores in 2002 than in 1998. Apparent increases for fourth- and eighth-grade Asian/Pacific Islander and American Indian/Alaska Native students were not found to be statistically significant.

At grade 12, no significant changes were detected for any of the racial/ethnic groups from 1998 to 2002.

In 2002, Asian/Pacific Islander students outperformed all other subgroups at grade 4. Both Asian/Pacific Islander students and White students outperformed Black, Hispanic, and American Indian/Alaska Native students at grades 4 and 8. At grade 12, White and Asian/Pacific Islander students scored higher on average than Black and Hispanic students, and Hispanic students had higher scores than Black students.

³ Balfanz, R., and MacIver, D. (2000). Transforming High Poverty Urban Middle Schools into Strong Learning Institutions: Lessons From the First Five Years of the Talent Development Middle School. *Journal of Education for Students Placed at Risk*, 5(1 & 2).

Charles A. Dana Center, University of Texas at Austin. (1999). *Hope for Urban Education: A Study of Nine High-Performing, High Poverty Urban Schools*. Washington, DC: U.S. Department of Education [On-line]. Available: <http://www.ed.gov/pubs/urbanbope/>

Grissmer, D. (1999). Class Size Effects: Assessing the Evidence, Its Policy Implications, and Future Research Agenda. *Educational Evaluation and Policy Analysis*, 21(1), 231–238.

Reyes, P., Scribner, J. D., and Scribner, A. P. (Eds.). (1999). *Lessons from High-Performing Hispanic Schools*. New York, NY: Teachers College Press.

⁴ Bankston, C. L., and Caldas, S. J. (1997). The American School Dilemma: Race and Scholastic Performance. *The Sociological Quarterly*, 38, 423–429.

Camara, W., and Schmidt, A. (1999). *Group Differences in Standardized Testing and Social Stratification*. New York, NY: College Entrance Examination Board.

Haycock, K. (2001). Closing the Achievement Gap. *Educational Leadership*, 58(6), 6–11.

Table 3.2 Average writing scale scores, by race/ethnicity, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12		1998	2002
Grade 4			
White		156 *	161
Black		130 *	140
Hispanic		134 *	141
Asian/Pacific Islander		159	167
American Indian/Alaska Native		130	139
Other		154	156
Grade 8			
White		157 *	161
Black		131 *	135
Hispanic		131 *	137
Asian/Pacific Islander		154	161
American Indian/Alaska Native		130	137
Other		151	154
Grade 12			
White		155	154
Black		134	130
Hispanic		136	136
Asian/Pacific Islander		150	151
American Indian/Alaska Native		129	***
Other		159	141

* Significantly different from 2002.

*** Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian/Alaska Native data in 2002. As a result, they are omitted from this report.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Writing Assessments.

Figure 3.3 Average writing scale scores, by race/ethnicity, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12



* Significantly different from 2002.

NOTE: Italicized scale score values indicate that two or more groups had the same average scale score when rounded:

Grade 4, 1998: Black and American Indian/Alaska Native students (the 1998 score was significantly different from 2002 only for Black students); Grade 8, 1998: Black and Hispanic students (the 1998 scores were significantly different from 2002 for both Black and Hispanic students); Grade 8, 2002: White and Asian/Pacific Islander students, and Hispanic and American Indian/Alaska Native students.

Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian/Alaska Native data in 2002. As a result, they are omitted from this report.

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

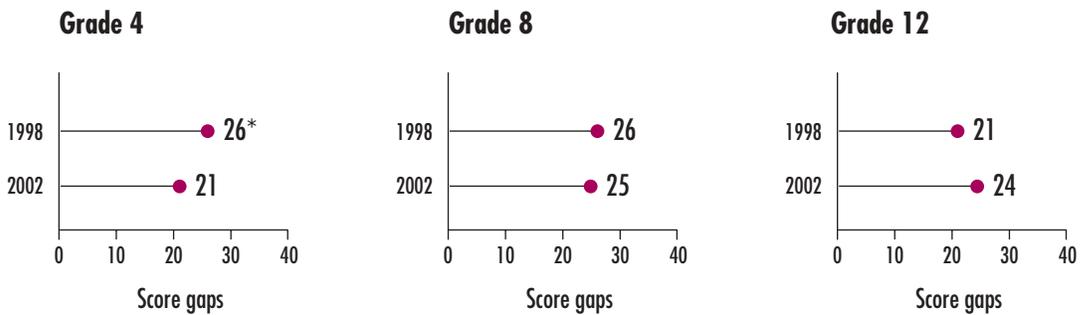
Average scale score gaps between White and Black students and between White and Hispanic students are presented in figure 3.4. In 2002, the score gap between White and Black fourth-grade students was smaller than in 1998. At grades 8 and 12,

any apparent changes in the gaps either between White and Black students or between White and Hispanic students from 1998 to 2002 were not found to be statistically significant.

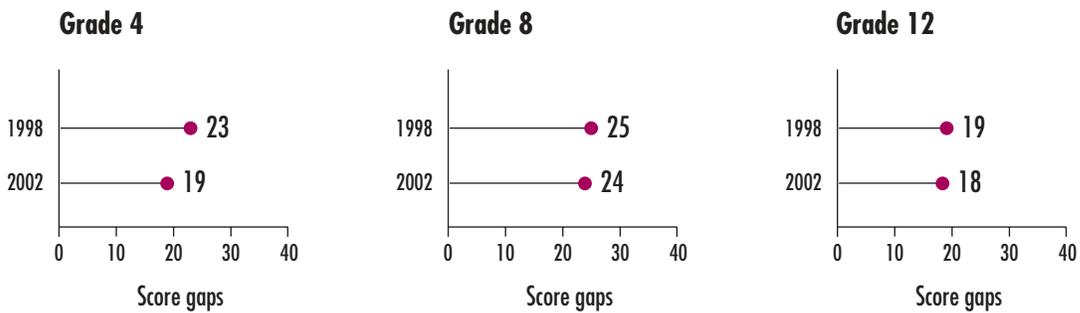
Figure 3.4 Gaps in average writing scale scores, by race/ethnicity, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12

White average score minus Black average score



White average score minus Hispanic average score



* Significantly different from 2002.

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

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

Achievement level results across assessment years for racial/ethnic subgroups are shown in table 3.3. At grade 4, the percentages of White, Black, Hispanic, and Asian/Pacific Islander students performing at or above *Proficient* were higher in 2002 than in 1998. For the same period, the percentages of White and Black students performing at or above *Basic* were higher. Although still relatively small, the percentages of White and Hispanic fourth-grade students performing at *Advanced* were higher in 2002 than in 1998.

At grade 8, the percentages of White, Black, and Hispanic students performing at or above the *Proficient* level were higher in 2002 than in 1998. Apparent changes in the percentages of students performing at or above *Basic* were not found to be significantly different for any of the racial/ethnic groups. The percentage of White eighth-grade students performing at *Advanced* increased from 1 percent in 1998 to 3 percent in 2002.

At grade 12, the percentage of White students performing at or above *Basic* declined since 1998. The percentage of White twelfth-grade students performing at *Advanced* increased from 1 percent in 1998 to 2 percent in 2002. No significant differences in the percentages of students performing at or above *Proficient* were detected for any racial/ethnic group over the same period.

Comparison of performance of racial/ethnic subgroups in 2002 shows higher percentages of White and Asian/Pacific Islander students than Black and Hispanic students performing at or above *Basic* and at or above *Proficient* at all three grades. In addition, higher percentages of Asian/Pacific Islander students than White students were noted at or above *Basic* and at or above *Proficient* at grade 4.

Table 3.3 Percentage of students, by writing achievement level and race/ethnicity, grades 4, 8, and 12: 1998 and 2002

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4								
White	1998		11 *	61 *	26 *	2 *	89 *	28 *
	2002		10	57	31	3	90	34
Black	1998		32 *	61	7 *	#	68 *	8 *
	2002		23	63	13	1	77	14
Hispanic	1998		29	61	10 *	# *	71	10 *
	2002		23	60	16	1	77	17
Asian/Pacific Islander	1998		9	60	28 *	3	91	31 *
	2002		7	52	37	4	93	41
American Indian/Alaska Native	1998		32	60	8	0	68	8
	2002		25	61	13	1	75	15
Other	1998		12	64	24	#	88	24
	2002		13	58	26	3	87	29
Grade 8								
White	1998		11	57 *	31 *	1 *	89	33 *
	2002		10	52	35	3	90	38
Black	1998		29	63	8 *	#	71	8 *
	2002		26	61	13	#	74	13
Hispanic	1998		30	60	10 *	#	70	10 *
	2002		27	57	16	1	73	16
Asian/Pacific Islander	1998		15	54	30	2	85	32
	2002		12	48	37	4	88	40
American Indian/Alaska Native	1998		32	57	11	#	68	11
	2002		27	57	15	1	73	16
Other	1998		14	57	28	1	86	29
	2002		15	54	30	2	85	31
Grade 12								
White	1998		17 *	57 *	25	1 *	83 *	26
	2002		21	51	25	2	79	28
Black	1998		36	56 *	8	#	64	8
	2002		41	50	8	#	59	9
Hispanic	1998		34	56	10	#	66	10
	2002		36	51	12	1	64	13
Asian/Pacific Islander	1998		24	53	21	1	76	23
	2002		24	50	23	3	76	25
American Indian/Alaska Native	1998		42	47	10	#	58	11
	2002		***	***	***	***	***	***
Other	1998		18	47	34	1	82	35
	2002		33	45	19	3	67	22

Percentage rounds to zero.

* Significantly different from 2002.

*** Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian/Alaska Native data. As a result, they are omitted from this report.

NOTE: Percentages within each writing 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), 1998 and 2002 Writing Assessments.

Student Eligibility for Free/Reduced-Price School Lunch

Funded by the U.S. Department of Agriculture (USDA) as part of the National School Lunch Program, free/reduced-price school lunches are provided to eligible children near or below the poverty line. Eligibility guidelines for the program are based on the federal income poverty guidelines and are stated by household size.⁵ NAEP collects data on students' eligibility for free/reduced-price lunch as an indicator of economic status at both the national and state levels.

In 2002, 40 percent of fourth-graders, 31 percent of eighth-graders, and 19 percent of twelfth-graders were eligible for free/reduced-price lunches. Information

regarding eligibility was not available for 13–18 percent of the students.

Table 3.4 and figure 3.5 present the average scale score results at grades 4, 8, and 12, by students' eligibility for free/reduced-price lunch. Average fourth- and eighth-grade writing scores in 2002 were higher than in 1998 for students who were eligible for free/reduced-price school lunch, as well as for those who were not eligible. At grade 12, no statistically significant changes in scores were detected for students who were eligible and students who were not eligible.

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

Table 3.4 Average writing scale scores, by student eligibility for free/reduced-price school lunch, grades 4, 8, and 12: 1998 and 2002

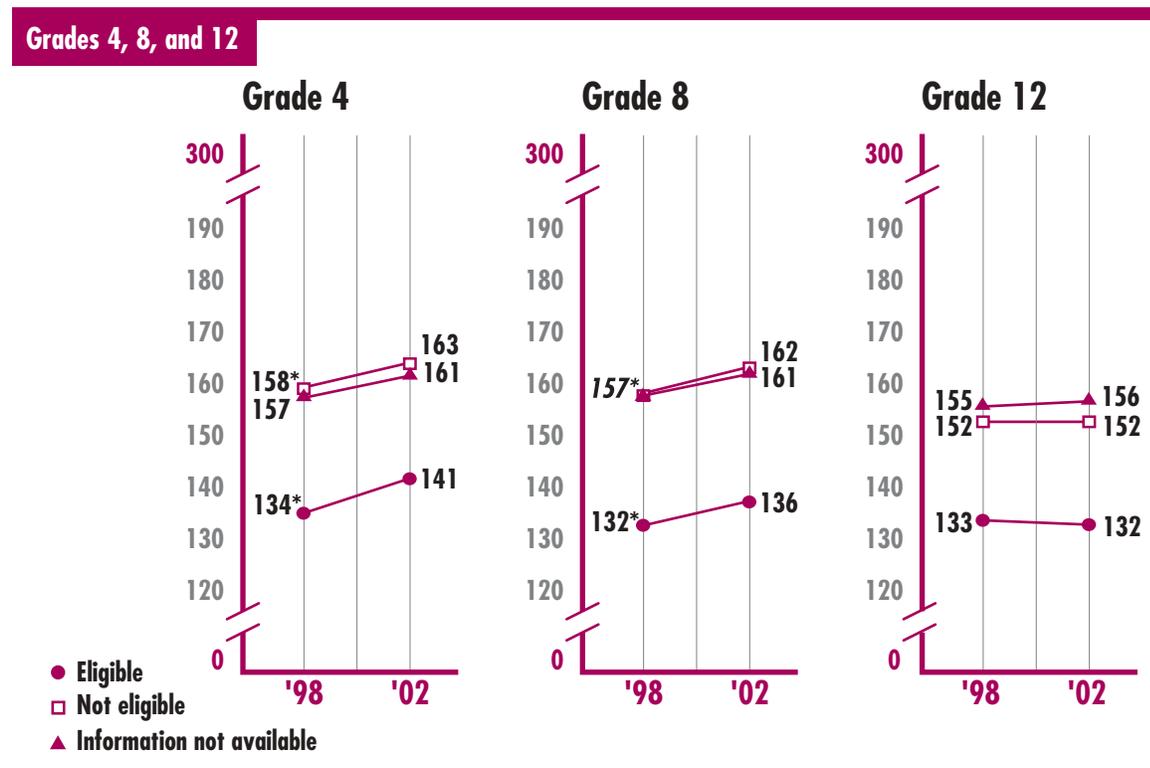
Grades 4, 8, and 12		1998	2002
Grade 4			
Eligible		134 *	141
Not eligible		158 *	163
Information not available		157	161
Grade 8			
Eligible		132 *	136
Not eligible		157 *	162
Information not available		157	161
Grade 12			
Eligible		133	132
Not eligible		152	152
Information not available		155	156

* Significantly different from 2002.

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

⁵ U.S. General Services Administration. (2001). *Catalog of Federal Domestic Assistance*. Washington, DC: Executive Office of the President, Office of Management and Budget.

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



* Significantly different from 2002.

NOTE: Italicized scale score values indicate that two or more groups had the same rounded average score. The average scale scores, when rounded, were the same in 1998 for grade 8 students who were “not eligible” and for whom information was “not available” (the 1998 score was only significantly different from 2002 for the students who were “not eligible”).

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

Achievement level results by students’ eligibility for free/reduced-price lunch are presented in table 3.5. The percentages of fourth-graders at or above *Basic*, at or above *Proficient*, and at *Advanced* increased between 1998 and 2002 among students who were eligible for free/reduced-price school lunch and among those who were not. At grade 8, the percentages of students at or above *Proficient* and at *Advanced* increased for both students who were eligible and students who were not eligible.

At grade 12, the percentage of students at or above *Basic* decreased and the percentage at *Advanced* increased for those twelfth-graders who were not eligible for free/reduced-price lunch.

At all three grades, there were higher percentages of students who were not eligible for free/reduced-price school lunch performing at or above *Basic*, at or above *Proficient*, and at *Advanced* in 2002 than of students who were eligible.

Table 3.5 Percentage of students, by writing achievement level and eligibility for free/reduced-price school lunch, grades 4, 8, and 12: 1998 and 2002

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4								
Eligible	1998		28 *	63	9 *	# *	72 *	9 *
	2002		22	62	15	1	78	15
Not eligible	1998		10 *	60 *	28 *	2 *	90 *	30 *
	2002		8	56	33	3	92	36
Information not available	1998		12	59	28	2	88	30
	2002		10	56	32	3	90	34
Grade 8								
Eligible	1998		29	61 *	10 *	# *	71	10 *
	2002		26	58	15	1	74	16
Not eligible	1998		10	57 *	31 *	1 *	90	33 *
	2002		9	52	36	3	91	39
Information not available	1998		12	54	32	2	88	34
	2002		11	51	35	4	89	39
Grade 12								
Eligible	1998		36	56 *	8	#	64	8
	2002		40	50	10	1	60	11
Not eligible	1998		19 *	57 *	23	1 *	81 *	23
	2002		23	51	24	2	77	26
Information not available	1998		18	57 *	24	1 *	82	26
	2002		19	52	27	2	81	29

Percentage rounds to zero.

* Significantly different from 2002.

NOTE: Percentages within each writing 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), 1998 and 2002 Writing Assessments.

The results presented for students within different racial/ethnic subgroups and by eligibility for free/reduced-price lunch are explored in more detail in table 3.6. Average scores of students within the six different racial/ethnic categories are presented for students who were either eligible or not eligible for free/reduced-price lunch, as well as for students for whom eligibility information was not available. By presenting the data in this manner, it is possible to examine the performance of students in different racial/

ethnic subgroups, while controlling for one indicator of socioeconomic status—eligibility for free/reduced-price lunch.

In 2002, between 43 and 69 percent of Black and Hispanic students were eligible for free/reduced-price school lunch compared to between 11 and 33 percent of White and Asian/Pacific Islander students (see table B.4 in appendix B). The percentage of students who were eligible in 2002 was higher among Asian/Pacific Islander students than among White students at each grade.

With a few exceptions, patterns in performance between the different racial/ethnic subgroups were similar among students who were eligible and those who were not eligible for free/reduced-price lunch. At all three grades, White students outperformed their Black and Hispanic peers regardless of whether or not the students were eligible for free/reduced-price lunch. Both eligible and ineligible Asian/Pacific Islander students outperformed all other racial/ethnic subgroups at grade 4 and scored higher on average than Black, Hispanic, and American Indian/Alaska Native students at grade 8. As seen

in the overall results by race/ethnicity at grade 12, Asian/Pacific Islander students who were not eligible for free/reduced-price lunch had higher average scores than Black and Hispanic students who were not eligible; however there was no significant difference detected between Asian/Pacific Islander and Hispanic students who were eligible. While twelfth-grade Hispanic students had higher scores than Black students when both were eligible for free/reduced-price lunch, there was no significant difference observed among students who were not eligible.

Table 3.6 Average writing scale scores, by student eligibility for free/reduced-price school lunch and race/ethnicity, grades 4, 8, and 12: 2002

	Eligible	Not eligible	Information not available
Grade 4			
White	147	165	166
Black	136	150	145
Hispanic	137	155	147
Asian/Pacific Islander	155	173	172
American Indian/Alaska Native	132	151	143
Grade 8			
White	144	164	168
Black	129	145	142
Hispanic	131	149	143
Asian/Pacific Islander	144	170	166
American Indian/Alaska Native	127	151	135
Grade 12			
White	139	154	159
Black	123	134	137
Hispanic	130	139	144
Asian/Pacific Islander	134	155	161
American Indian/Alaska Native	***	***	***

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

Title I

Title I is a federally funded program that provides educational services to children who live in areas with high concentrations of low-income families and serves as another indicator of students' economic status. Although NAEP first began collecting data on schools receiving Title I funds in 1996, changes in the program in subsequent years do not allow meaningful comparisons across years. Therefore, only the information collected as part of the 2002 assessment is reported for each grade.

In 2002, 33 percent of fourth-graders, 19 percent of eighth-graders, and 10 percent of twelfth-graders attended schools that reported participating in Title I. The results presented in table 3.7 show that, at all three grades, students who attended schools that participated in Title I had lower average writing scores than students who attended schools that did not participate in Title I.

Table 3.7 Average writing scale scores, by school participation in Title I, grades 4, 8, and 12: 2002

	2002
Grade 4	
Participated	139
Did not participate	161
Grade 8	
Participated	135
Did not participate	158
Grade 12	
Participated	132
Did not participate	150

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

Achievement level results by school participation in Title I are presented in table 3.8. The pattern for achievement level results parallels that seen in the scale scores. At all three grades there were higher

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

Table 3.8 Percentage of students, by writing achievement level and school participation in Title I, grades 4, 8, and 12: 2002

		Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4							
	Participated	24	62	13	1	76	14
	Did not participate	9	56	32	3	91	35
Grade 8							
	Participated	28	58	14	1	72	14
	Did not participate	12	53	33	3	88	35
Grade 12							
	Participated	40	50	10	1	60	10
	Did not participate	24	51	23	2	76	25

NOTE: Percentages within each writing 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 Writing Assessment.

Parents' Highest Level of Education

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

reported that at least one of their parents had graduated from college, and fewer than one-tenth indicated neither parent had graduated from high school. Nine percent of eighth-graders and 3 percent of twelfth-graders indicated that they didn’t know the highest level of education for either parent.

Average eighth- and twelfth-grade writing scale scores for student-reported parental education levels are shown in table 3.9. Because this question was worded differently in 1998 and 2002, cross-year data comparisons are not available. Overall, there is a positive relationship between student-reported parental education and student achievement for both eighth- and twelfth-graders: the higher the parental education level, the higher the average writing score.

Table 3.9 Average writing scale scores, by student-reported parents' highest level of education, grades 8 and 12: 2002

		2002
Grade 8		
	Less than high school	136
	Graduated high school	144
	Some education after high school	156
	Graduated college	165
	Unknown	132
Grade 12		
	Less than high school	129
	Graduated high school	139
	Some education after high school	149
	Graduated college	158
	Unknown	114

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

Achievement level results by level of parents' education are presented in table 3.10 and also show a positive relationship,

with higher percentages of students at or above the *Basic* and *Proficient* levels associated with higher levels of parental education.

Table 3.10 Percentage of students, by writing achievement level and student-reported parents' highest level of education, grades 8 and 12: 2002

	Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 8						
Less than high school	26	59	14	#	74	14
Graduated high school	19	61	20	1	81	20
Some education after high school	11	57	30	1	89	31
Graduated college	9	48	39	4	91	43
Unknown	30	58	12	#	70	12
Grade 12						
Less than high school	43	49	8	#	57	8
Graduated high school	32	53	14	1	68	14
Some education after high school	23	55	21	1	77	22
Graduated college	18	50	29	3	82	32
Unknown	59	36	4	#	41	4

Percentage rounds to zero.

NOTE: Percentages within each writing 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 Writing Assessment.

Type of School

The schools that participate in the NAEP assessment are classified as either public or nonpublic. A further distinction is then made between nonpublic schools that are Catholic schools and those that are some other type of nonpublic school. Results for additional categories of nonpublic schools are available online (<http://nces.ed.gov/nationsreportcard/naepdata>). The average writing scores of fourth-, eighth-, and twelfth-grade students by the type of school they attend are presented in table 3.11 and figure 3.6.

The average writing scores for fourth- and eighth-grade public-school students

were higher in 2002 than in 1998. There was no significant change detected in the average scores for fourth-, eighth-, or twelfth-grade students attending nonpublic schools between 1998 and 2002, nor was there any significant change in scores among twelfth-grade public-school students during the same period.

Performance results in 2002 show that, at all three grades, students who attended nonpublic schools had higher average writing scores than students who attended public schools. At grade 8, students who attended Catholic schools had higher scores than those attending other nonpublic schools.

Table 3.11 Average writing scale scores, by type of school, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12	1998	2002
Grade 4		
Public	148 *	153
Nonpublic	164	166
Nonpublic: Catholic	163	166
Nonpublic: Other	165	167
Grade 8		
Public	148 *	152
Nonpublic	167	170
Nonpublic: Catholic	169	172
Nonpublic: Other	166	168
Grade 12		
Public	148	146
Nonpublic	165	168
Nonpublic: Catholic	167	***
Nonpublic: Other	159	***

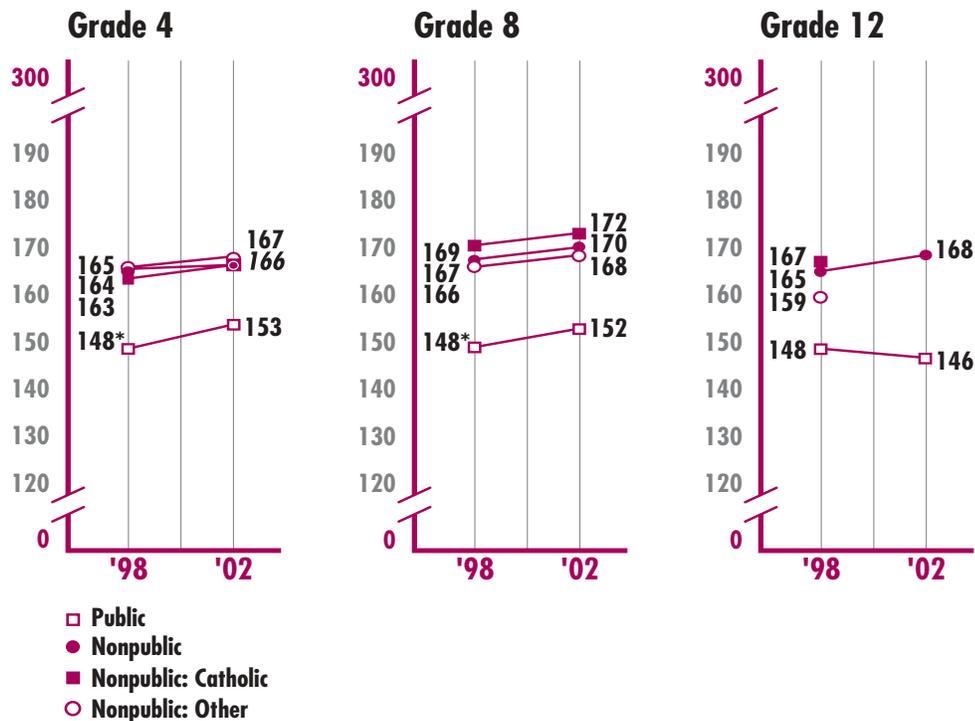
* Significantly different from 2002.

*** Participation rates for Catholic and Other nonpublic school students at grade 12 did not meet the minimum criterion for reporting in 2002.

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

Figure 3.6 Average writing scale scores, by type of school, grades 4, 8, and 12: 1998 and 2002

Grades 4, 8, and 12



* Significantly different from 2002.

NOTE: Italicized scale score values indicate that two or more groups had the same rounded average score. The average scale scores, when rounded, were the same for nonpublic- and Catholic-school students at grade 4 in 2002.

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

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

Achievement level results by type of school are presented for each of the three grades in table 3.12. The percentages of fourth-grade public-school students performing at or above *Basic*, at or above *Proficient*, and at *Advanced* increased between 1998 and 2002. At grade 8, the percentage of public-school students performing at or above *Proficient* increased, and percentages of public- and nonpublic-school students performing at *Advanced* increased over the same period of time. Changes at the twelfth grade include a decline in the percentage of public-school students performing at or above *Basic* and

an increase in the percentage of public- and nonpublic-school students performing at the *Advanced* level.

In 2002, the percentages of students performing at or above *Basic* and at or above *Proficient* were higher at all three grades among nonpublic-school students than public-school students. The percentages of students performing at *Advanced* in grades 8 and 12 were higher for students attending nonpublic schools than for those in public schools. At grade 8, the percentage of Catholic-school students performing at or above *Basic* was higher than that of other nonpublic-school students.

Table 3.12 Percentage of students, by writing achievement level and type of school, grades 4, 8, and 12: 1998 and 2002

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4								
Public	1998		17 *	61 *	20 *	1 *	83 *	22 *
	2002		15	59	25	2	85	27
Nonpublic	1998		7	58	33	2	93	35
	2002		6	56	36	3	94	39
Nonpublic: Catholic	1998		6	60	33	2	94	34
	2002		5	57	35	2	95	38
Nonpublic: Other	1998		7	55	35	3	93	38
	2002		6	54	37	3	94	40
Grade 8								
Public	1998		17	59 *	23 *	1 *	83	24 *
	2002		16	54	28	2	84	30
Nonpublic	1998		4	52 *	41	3 *	96	44
	2002		5	48	43	4	95	47
Nonpublic: Catholic	1998		3	51	43	2	97	46
	2002		3	48	45	4	97	49
Nonpublic: Other	1998		5	53	39	3	95	42
	2002		6	48	41	4	94	45
Grade 12								
Public	1998		23 *	57 *	19	1 *	77 *	20
	2002		27	51	20	2	73	22
Nonpublic	1998		10	55	33	2 *	90	35
	2002		11	50	36	4	89	40
Nonpublic: Catholic	1998		9	54	35	2	91	37
	2002		***	***	***	***	***	***
Nonpublic: Other	1998		14	56	29	2	86	30
	2002		***	***	***	***	***	***

* Significantly different from 2002.

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

NOTE: Percentages within each writing 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), 1998 and 2002 Writing Assessments.

The results presented for students in public and nonpublic schools and by highest level of parents' education are explored in more detail in table 3.13. Average scores of students in public and nonpublic schools are presented for each level of parental education. By presenting the data in this manner, it is possible to examine the performance of students in the two types of schools, while controlling for parental education.

In 2002, approximately two-thirds of the students attending nonpublic schools reported that at least one parent had graduated from college, compared to close

to one-half of the students attending public schools. In contrast, students reporting all other levels of parental education were more likely to attend public than nonpublic schools (see table B.8 in appendix B). With one exception, average writing scores were higher for nonpublic- than public-school students regardless of the reported level of parental education. The apparent difference in scale scores between public- and nonpublic-school twelfth-graders who reported that their parents did not finish high school was not found to be statistically significant.

Table 3.13 Average writing scale scores, by student-reported parents' highest level of education and type of school, grades 8 and 12: 2002

		Less than high school	Graduated high school	Some education after high school	Graduated college	Unknown
Grade 8						
	Public	135	144	155	163	131
	Nonpublic	154	157	166	176	152
Grade 12						
	Public	128	137	148	156	113
	Nonpublic	144	157	164	173	***

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

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

Type of School Location

The schools from which NAEP draws its samples of students are classified according to their type of location. Based on U.S. Census Bureau definitions of metropolitan statistical areas, including population size and density, the three mutually exclusive categories are central city, urban fringe/large town, and rural/small town. The methods used to identify the type of school location for the 2002 assessment were different from those used for prior assessments; therefore, only the data from the 2002 assessment are reported. More

information on the definitions of location type is given in appendix A.

The average writing scores for fourth-, eighth-, and twelfth-grade students, by type of location, are presented in table 3.14. Students in urban fringe schools had higher average writing scores than their peers in central city schools and rural schools at all three grades. Fourth- and eighth-grade students in rural schools had higher scores than their peers in central city schools while the reverse was true at grade 12.

Table 3.14 Average writing scale scores, by type of location, grades 4, 8, and 12: 2002

	2002
Grade 4	
Central city	150
Urban fringe/large town	159
Rural/small town	152
Grade 8	
Central city	147
Urban fringe/large town	158
Rural/small town	153
Grade 12	
Central city	148
Urban fringe/large town	153
Rural/small town	143

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

Achievement level results by type of school location are presented in table 3.15. In 2002, higher percentages of students from urban fringe/large town schools

performed at or above *Basic* and at or above *Proficient* than their peers in central city or rural/small town schools at all three grades.

Table 3.15 Percentage of students, by writing achievement level and type of location, grades 4, 8, and 12: 2002

	Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
Grade 4						
Central city	17	60	22	2	83	23
Urban fringe/large town	12	55	30	3	88	33
Rural/small town	14	62	23	1	86	24
Grade 8						
Central city	20	54	24	2	80	26
Urban fringe/large town	12	51	34	3	88	37
Rural/small town	14	56	28	2	86	29
Grade 12						
Central city	26	51	21	2	74	23
Urban fringe/large town	22	51	25	2	78	27
Rural/small town	29	51	19	1	71	20

NOTE: Percentages within each writing 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 Writing Assessment.

Performance of Selected Subgroups by State

Results for each jurisdiction that participated in the 2002 assessment at grade 4, and in the 1998 and/or 2002 assessments at grade 8, are presented in this section by gender, race/ethnicity, and eligibility for free/reduced-price school lunch. Additional data for participating jurisdictions by subgroup (e.g., percentages at or above *Basic*, average scale score gaps by gender or race/ethnicity) are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard/writing/results2002/stateresults.asp>). Since results for each jurisdiction are based on the performance of public-school students only, the results for the nation that appear in the tables along with data for participating jurisdictions are based on public-school students only (unlike the national results presented earlier in the chapter which

reflect the performance of public- and nonpublic-school students combined).

Gender

Tables 3.16 and 3.17 present the average writing scores for male and female students in participating jurisdictions at grades 4 and 8 respectively. The average fourth-grade writing scores ranged from 119 to 166 for male students and from 130 to 184 for female students.

At grade 8, average scores were higher in 2002 than in 1998 for both male and female students in 12 jurisdictions, for female students only in 1 jurisdiction, and for male students only in 2 jurisdictions. A decrease in the average score for male students was detected in 1 jurisdiction. In 2002, females had higher average scores than males in all the participating jurisdictions at both grades 4 and 8.

Table 3.16 Average writing scale scores, by gender, grade 4 public schools: By state, 2002

Grade 4	Male	Female
Nation (Public)	144	162
Alabama	130	151
Arizona	132	148
Arkansas	136	154
California ‡	136	157
Connecticut	166	184
Delaware	154	172
Florida	149	168
Georgia	141	158
Hawaii	141	158
Idaho	142	159
Indiana	144	163
Iowa ‡	144	166
Kansas ‡	141	156
Kentucky	144	165
Louisiana	137	147
Maine	147	169
Maryland	148	165
Massachusetts	162	178
Michigan	138	156
Minnesota ‡	147	165
Mississippi	134	149
Missouri	141	160
Montana ‡	141	157
Nebraska	144	164
Nevada	135	155
New Mexico	134	151
New York ‡	156	170
North Carolina	151	167
North Dakota ‡	142	158
Ohio	150	164
Oklahoma	135	150
Oregon	139	158
Pennsylvania	148	164
Rhode Island	150	166
South Carolina	136	154
Tennessee ‡	140	158
Texas	145	163
Utah	135	156
Vermont	147	169
Virginia	149	165
Washington ‡	151	166
West Virginia	137	156
Wyoming	142	159
Other Jurisdictions		
District of Columbia	127	143
DDESS ¹	148	163
DoDDS ²	150	168
Guam	123	141
Virgin Islands	119	130

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.17 Average writing scale scores, by gender, grade 8 public schools: By state, 1998 and 2002

Grade 8	Male		Female	
	1998	2002	1998	2002
Nation (Public) ¹	138 *	141	158 *	162
Alabama	134	130	153	153
Arizona	134	130	153	153
Arkansas	125 **	132	148 *	153
California ‡	133	137	148	152
Colorado	141	—	161	—
Connecticut	156	155	175	174
Delaware	134 **	150	156 **	168
Florida	130 **	141	152 **	166
Georgia	138	137	156	158
Hawaii	124	126	148	150
Idaho	—	138	—	165
Indiana	—	138	—	162
Kansas ‡	—	144	—	166
Kentucky	135	138	157	161
Louisiana	126 **	133	144 **	152
Maine	142	144	168	170
Maryland	136 **	147	157 **	166
Massachusetts	144 **	155	166 **	173
Michigan	—	137	—	158
Minnesota ‡	134	—	162	—
Mississippi	125 **	132	143 **	150
Missouri	130 **	140	153 **	161
Montana ‡	138	137	162	168
Nebraska	—	145	—	167
Nevada	130 *	125	149	151
New Mexico	131	130	153	152
New York ‡	139	142	154 **	162
North Carolina	140 **	146	161 **	167
North Dakota ‡	—	133	—	161
Ohio	—	150	—	170
Oklahoma	142	139	162	160
Oregon ‡	138	144	161	167
Pennsylvania	—	144	—	165
Rhode Island	139 **	143	157	160
South Carolina	130 **	137	150 **	155
Tennessee ‡	138	137	157	159
Texas	144	141	165	162
Utah	130	131	155	155
Vermont	—	151	—	175
Virginia	144	146	164	167
Washington ‡	136 **	146	159 **	165
West Virginia	133	132	155	157
Wisconsin ‡	141	—	166	—
Wyoming	133 **	140	160	164
Other Jurisdictions				
American Samoa	—	85	—	104
District of Columbia	115	120	136	136
DDESS ²	152	153	168	174
DoDDS ³	147 *	150	165 **	173
Guam	—	121	—	140
Virgin Islands	114	124	131	133

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

² Department of Defense Domestic Dependent Elementary and Secondary Schools.

³ Department of Defense Dependents Schools (Overseas).

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

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

Tables 3.18 and 3.19 present the percentages of male and female students performing at or above the *Proficient* level for the participating jurisdictions at grades 4 and 8 respectively. In 2002, the percentage of fourth-graders performing at or above *Proficient* ranged from 2 to 39 percent for male students and from 7 to 60 percent for female students.

At grade 8, increases in percentages of males and females performing at or above *Proficient* were detected in 11 jurisdictions. Increases for females only were found in 2 jurisdictions and for males only in 1 jurisdiction. There were higher percentages of female students performing at or above *Proficient* in 2002 than male students in all the participating jurisdictions at grade 4, and in all but two jurisdictions at grade 8.

Table 3.18 Percentage of students at or above *Proficient* in writing, by gender, grade 4 public schools: By state, 2002

Grade 4	Male	Female
Nation (Public)	18	35
Alabama	8	23
Arizona	9	22
Arkansas	10	27
California ‡	14	32
Connecticut	39	60
Delaware	25	46
Florida	23	43
Georgia	16	30
Hawaii	15	29
Idaho	14	32
Indiana	16	35
Iowa ‡	14	40
Kansas ‡	14	28
Kentucky	17	37
Louisiana	11	17
Maine	20	44
Maryland	21	38
Massachusetts	34	54
Michigan	11	28
Minnesota ‡	18	39
Mississippi	8	18
Missouri	12	31
Montana ‡	13	30
Nebraska	16	38
Nevada	10	25
New Mexico	11	24
New York ‡	30	44
North Carolina	25	40
North Dakota ‡	11	28
Ohio	20	35
Oklahoma	11	22
Oregon	15	30
Pennsylvania	20	37
Rhode Island	22	39
South Carolina	10	25
Tennessee ‡	14	31
Texas	21	37
Utah	11	29
Vermont	21	42
Virginia	22	37
Washington ‡	22	39
West Virginia	10	28
Wyoming	15	31
Other Jurisdictions		
District of Columbia	7	15
DDESS ¹	16	34
DoDDS ²	20	41
Guam	5	14
Virgin Islands	2	7

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.19 Percentage of students at or above *Proficient* in writing, by gender, grade 8 public schools:
By state, 1998 and 2002

Grade 8	Male		Female	
	1998	2002	1998	2002
Nation (Public) ¹	15 *	20	34 *	40
Alabama	9	11	25	28
Arizona	13	11	29	30
Arkansas	6 **,*	11	21 *	28
California ‡	15	17	25	30
Colorado	16	—	38	—
Connecticut	33	35	55	55
Delaware	13 **,*	25	32 **,*	45
Florida	11 **,*	20	28 **,*	45
Georgia	15	15	31	34
Hawaii	7	10	23	27
Idaho	—	15	—	43
Indiana	—	15	—	38
Kansas ‡	—	19	—	45
Kentucky	11	15	30	35
Louisiana	5 **,*	11	17 **,*	26
Maine	20	22	44	49
Maryland	13 **,*	25	33 **,*	43
Massachusetts	20 **,*	32	44 **,*	53
Michigan	—	15	—	35
Minnesota ‡	11	—	39	—
Mississippi	6	6	16	20
Missouri	9 **,*	16	27 **,*	38
Montana ‡	14	14	37 *	46
Nebraska	—	20	—	44
Nevada	10	8	24	25
New Mexico	10	10	27	28
New York ‡	13 **,*	20	28 **,*	40
North Carolina	18 *	24	37 **,*	45
North Dakota ‡	—	11	—	38
Ohio	—	26	—	49
Oklahoma	14	17	36	37
Oregon ‡	15 **,*	23	38	45
Pennsylvania	—	22	—	42
Rhode Island	17	21	34	38
South Carolina	7 **,*	11	24 *	29
Tennessee ‡	15	14	32	35
Texas	19	21	43	41
Utah	12	13	31	34
Vermont	—	28	—	55
Virginia	17	22	39	43
Washington ‡	15 **,*	24	34 **,*	45
West Virginia	10	11	27	31
Wisconsin ‡	14	—	43	—
Wyoming	12	16	35	40
Other Jurisdictions				
American Samoa	—	2	—	5
District of Columbia	5	6	17	14
DDESS ²	31	28	45	54
DoDDS ³	21	23	41 **,*	51
Guam	—	8	—	18
Virgin Islands	5	2	11	5

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

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

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

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

Race/Ethnicity

The average writing scores for each of the racial/ethnic groups in each participating jurisdiction are presented in table 3.20 for grade 4 and in table 3.21 for grade 8. In 2002, the average fourth-grade writing scores ranged from 146 to 183 for White students, from 131 to 181 for Asian/Pacific Islander students, from 125 and 151 for Black students, and from 122 to 154 for Hispanic students.

At grade 8, average scores increased since 1998 for White students in 15 jurisdictions, for Black students in 9 jurisdictions, for Hispanic students in 4 jurisdictions, and for students classified as Other in 1 jurisdiction. Score increases were observed for 2 or more racial/ethnic subgroups in the following jurisdictions: Arkansas, Delaware, Florida, Louisiana, Maryland, Missouri, North Carolina, South Carolina, Washington, and Department of Defense overseas schools.

Table 3.20 Average writing scale scores, by race/ethnicity, grade 4 public schools: By state, 2002

Grade 4	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaska Native	Other
Nation (Public)	159	139	140	166	138	153
Alabama	146	130	***	***	***	***
Arizona	149	143	129	***	121	***
Arkansas	151	130	139	***	***	***
California ‡	158	138	135	164	***	***
Connecticut	182	149	154	179	***	***
Delaware	171	150	148	181	***	***
Florida	165	144	154	***	***	***
Georgia	157	138	136	171	***	***
Hawaii	152	147	145	148	***	151
Idaho	152	***	138	***	***	***
Indiana	157	138	144	***	***	***
Iowa ‡	156	146	139	***	***	***
Kansas ‡	152	134	137	***	***	***
Kentucky	156	143	***	***	***	***
Louisiana	151	133	***	***	***	***
Maine	158	***	***	***	***	***
Maryland	165	144	149	170	***	***
Massachusetts	175	151	142	168	***	***
Michigan	152	131	139	***	***	***
Minnesota ‡	159	136	129	153	143	***
Mississippi	151	132	***	***	***	***
Missouri	153	138	***	***	***	***
Montana ‡	151	***	***	***	133	***
Nebraska	158	139	137	***	***	***
Nevada	152	133	135	159	133	***
New Mexico	151	***	139	***	126	***
New York ‡	172	148	149	176	***	***
North Carolina	167	147	145	161	***	161
North Dakota ‡	152	***	***	***	137	***
Ohio	162	140	***	***	***	***
Oklahoma	148	128	130	***	137	147
Oregon	151	139	132	165	***	***
Pennsylvania	161	135	136	***	***	***
Rhode Island	164	141	136	150	***	***
South Carolina	153	135	***	***	***	***
Tennessee ‡	153	135	139	***	***	***
Texas	168	142	145	176	***	***
Utah	148	***	126	143	***	***
Vermont	158	***	***	***	***	***
Virginia	163	140	145	168	***	***
Washington ‡	160	145	138	164	***	***
West Virginia	147	146	***	***	***	***
Wyoming	151	***	144	***	142	***
Other Jurisdictions						
District of Columbia	183	132	137	***	***	***
DDESS ¹	160	151	150	***	***	154
DoDDS ²	163	150	152	163	***	159
Guam	***	***	***	131	***	***
Virgin Islands	***	125	122	***	***	***

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

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.21 Average writing scale scores, by race/ethnicity, grade 8 public schools: By state, 1998 and 2002

Grade 8	White		Black		Hispanic		Asian/ Pacific Islander		American Indian/ Alaska Native		Other	
	1998	2002	1998	2002	1998	2002	1998	2002	1998	2002	1998	2002
	Nation (Public) ¹											
Nation (Public) ¹	155 *	159	130 *	134	130 *	135	152	159	130	138	143	150
Alabama	150	150	129	127	***	***	***	***	***	***	***	***
Arizona	153	150	123	137	127	126	***	***	130	126	***	***
Arkansas	142 *	147	119 *	125	***	130	***	***	***	***	***	***
California †	154	156	134	128	123 *,**	132	157	155	***	***	***	***
Colorado	157	—	133	—	130	—	159	—	***	—	***	—
Connecticut	172	175	138	134	137	136	***	172	***	***	***	***
Delaware	151 **,	165	130 **,	145	132 *	144	***	182	***	***	***	***
Florida	150 **,	163	126 **,	137	136 *	144	***	167	***	***	***	***
Georgia	156	156	132	138	***	119	***	152	***	***	***	***
Hawaii	142	142	***	139	***	***	135	137	***	***	131	136
Idaho	—	153	—	***	—	130	—	***	—	***	—	***
Indiana	—	153	—	125	—	***	—	***	—	***	—	***
Kansas †	—	159	—	135	—	132	—	***	—	***	—	***
Kentucky	148	150	129	137	***	***	***	***	***	***	***	***
Louisiana	145 **,	153	122 *	129	***	***	***	***	***	***	***	***
Maine	155	157	***	***	***	***	***	***	***	***	***	***
Maryland	156 **,	167	130 **,	140	138	143	164	172	***	***	***	***
Massachusetts	160 **,	171	134	139	122	132	159	167	***	***	***	***
Michigan	—	152	—	130	—	***	—	***	—	***	—	***
Minnesota †	151	—	118	—	***	—	131	—	***	—	***	—
Mississippi	145	149	123 **,	132	***	***	***	***	***	***	***	***
Missouri	145 **,	153	124 **,	139	***	***	***	***	***	***	***	***
Montana †	152	155	***	***	***	***	***	***	132	129	***	***
Nebraska	—	160	—	131	—	128	—	***	—	***	—	***
Nevada	145	143	132	128	123	123	144	149	***	***	***	***
New Mexico	152	152	150	***	133	134	***	***	132	131	***	***
New York †	156 **,	163	131	134	125	133	148	155	***	***	***	***
North Carolina	158 **,	165	134 **,	141	***	132	***	***	141	***	***	***
North Dakota †	—	148	—	***	—	***	—	***	—	125	—	***
Ohio	—	165	—	133	—	***	—	***	—	***	—	***
Oklahoma	155	154	134	135	139	135	***	***	143	144	***	***
Oregon †	151 *	157	***	***	133	133	157	162	***	***	***	***
Pennsylvania	—	160	—	124	—	133	—	154	—	***	—	***
Rhode Island	152 **,	158	133	133	120	128	143	***	***	***	***	***
South Carolina	149 **,	155	126 **,	135	***	***	***	***	***	***	***	***
Tennessee †	153	152	130	132	***	***	***	***	***	***	***	***
Texas	163	168	146	140	143	137	159	156	***	***	***	***
Utah	145	146	***	***	118	119	136	139	***	***	***	***
Vermont	—	163	—	***	—	***	—	***	—	***	—	***
Virginia	158	162	140	140	151	146	162	171	***	***	***	***
Washington †	151 *	158	131	142	118 **,	137	150	156	***	***	***	***
West Virginia	144	145	142	136	***	***	***	***	***	***	***	***
Wisconsin †	155	—	140	—	138	—	***	—	***	—	***	—
Wyoming	147 **,	153	***	***	136	138	***	***	120	134	***	***
Other Jurisdictions												
American Samoa	—	***	—	***	—	***	—	94	—	***	—	***
District of Columbia	170	***	124	126	128	130	***	***	***	***	***	***
DDESS ²	167	171	151	154	153	160	***	***	***	***	***	168
DoDDS ³	160 *	166	147	149	154	155	153	161	***	***	155 **,	163
Guam	—	***	—	***	—	***	—	130	—	***	—	***
Virgin Islands	***	***	124	128	119	128	***	***	***	***	***	***

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

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

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

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

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

The percentages of students in the different racial/ethnic subgroups across jurisdictions who performed at or above *Proficient* are presented in tables 3.22 (grade 4) and 3.23 (grade 8). In 2002, the percentage of fourth-graders performing at or above *Proficient* ranged from 19 to 64 percent for White students, from 5 to 22 percent for Black students, from 3 to 30

percent for Hispanic students, and from 9 to 56 percent for Asian/Pacific Islander students. The percentages of eighth-graders performing at or above *Proficient* increased since 1998 for White students in 13 jurisdictions, for Black students in 7 jurisdictions, and for Hispanic students in 1 jurisdiction.

Table 3.22 Percentage of students at or above *Proficient* in writing, by race/ethnicity, grade 4 public schools:
By state, 2002

Grade 4	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaska Native	Other
Nation (Public)	32	14	17	40	15	26
Alabama	20	7	***	***	***	***
Arizona	21	15	8	***	4	***
Arkansas	23	9	11	***	***	***
California †	32	14	14	38	***	***
Connecticut	58	22	26	55	***	***
Delaware	44	21	20	56	***	***
Florida	39	20	30	***	***	***
Georgia	30	13	13	42	***	***
Hawaii	24	21	18	22	***	23
Idaho	24	***	10	***	***	***
Indiana	28	12	17	***	***	***
Iowa †	28	21	13	***	***	***
Kansas †	24	9	11	***	***	***
Kentucky	29	16	***	***	***	***
Louisiana	21	7	***	***	***	***
Maine	32	***	***	***	***	***
Maryland	39	17	20	44	***	***
Massachusetts	50	21	14	43	***	***
Michigan	23	8	11	***	***	***
Minnesota †	31	12	8	25	20	***
Mississippi	20	6	***	***	***	***
Missouri	24	11	***	***	***	***
Montana †	24	***	***	***	8	***
Nebraska	30	16	10	***	***	***
Nevada	22	9	10	32	11	***
New Mexico	25	***	15	***	6	***
New York †	47	21	23	52	***	***
North Carolina	40	20	20	40	***	29
North Dakota †	21	***	***	***	10	***
Ohio	33	11	***	***	***	***
Oklahoma	20	9	7	***	11	14
Oregon	24	14	9	39	***	***
Pennsylvania	33	9	9	***	***	***
Rhode Island	37	13	9	22	***	***
South Carolina	23	9	***	***	***	***
Tennessee †	26	12	14	***	***	***
Texas	42	17	20	49	***	***
Utah	21	***	6	15	***	***
Vermont	32	***	***	***	***	***
Virginia	36	12	18	42	***	***
Washington †	33	19	12	32	***	***
West Virginia	19	18	***	***	***	***
Wyoming	24	***	16	***	19	***
Other Jurisdictions						
District of Columbia	64	8	10	***	***	***
DDESS ¹	30	18	20	***	***	26
DoDDS ²	34	20	24	34	***	31
Guam	***	***	***	9	***	***
Virgin Islands	***	5	3	***	***	***

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

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.23 Percentage of students at or above *Proficient* in writing, by race/ethnicity, grade 8 public schools:
By state, 1998 and 2002

Grade 8	Percentage of students at or above Proficient in writing, by race/ethnicity, grade 8 public schools:											
	White		Black		Hispanic		Asian/ Pacific Islander		American Indian/ Alaska Native		Other	
	1998	2002	1998	2002	1998	2002	1998	2002	1998	2002	1998	2002
Nation (Public) ¹	31 *	37	7 *	13	9 *	15	30	39	11	17	20	28
Alabama	22	26	6	9	***	***	***	***	***	***	***	***
Arizona	28	27	6	13	7	9	***	***	12	8	***	***
Arkansas	16 *	22	4	8	***	12	***	***	***	***	***	***
California †	30	34	11	10	7	13	35	36	***	***	***	***
Colorado	32	—	10	—	9	—	34	—	***	—	***	—
Connecticut	52	55	14	15	13	17	***	55	***	***	***	***
Delaware	28 **	43	9 **	18	12	20	***	63	***	***	***	***
Florida	26 **	41	7 **	17	15 *	26	***	47	***	***	***	***
Georgia	31	33	9	14	***	7	***	27	***	***	***	***
Hawaii	20	21	***	17	***	***	15	18	***	***	11	18
Idaho	—	30	—	***	—	11	—	***	—	***	—	***
Indiana	—	29	—	7	—	***	—	***	—	***	—	***
Kansas †	—	36	—	13	—	13	—	***	—	***	—	***
Kentucky	22	26	8	12	***	***	***	***	***	***	***	***
Louisiana	17 **	26	4 **	8	***	***	***	***	***	***	***	***
Maine	32	36	***	***	***	***	***	***	***	***	***	***
Maryland	31 **	45	7 **	17	12	24	40	55	***	***	***	***
Massachusetts	36 **	49	9	18	6	10	36	45	***	***	***	***
Michigan	—	29	—	9	—	***	—	***	—	***	—	***
Minnesota †	27	—	8	—	***	—	11	—	***	—	***	—
Mississippi	17	20	4	6	***	***	***	***	***	***	***	***
Missouri	20 **	29	4 *	13	***	***	***	***	***	***	***	***
Montana †	26	32	***	***	***	***	***	***	14	10	***	***
Nebraska	—	35	—	10	—	11	—	***	—	***	—	***
Nevada	21	19	10	8	7	7	18	28	***	***	***	***
New Mexico	27	29	29	***	11	13	***	***	12	9	***	***
New York †	29 **	41	7	12	5	12	27	34	***	***	***	***
North Carolina	35 *	43	11 **	18	***	16	***	***	18	***	***	***
North Dakota †	—	25	—	***	—	***	—	***	—	7	—	***
Ohio	—	42	—	14	—	***	—	***	—	***	—	***
Oklahoma	29	31	7	13	13	13	***	***	16	22	***	***
Oregon †	28 *	35	***	***	13	17	35	41	***	***	***	***
Pennsylvania	—	37	—	7	—	9	—	31	—	***	—	***
Rhode Island	29 **	35	10	10	5	9	19	***	***	***	***	***
South Carolina	22 **	28	5 *	9	***	***	***	***	***	***	***	***
Tennessee †	28	27	9	12	***	***	***	***	***	***	***	***
Texas	40	47	20	20	20	17	35	30	***	***	***	***
Utah	23	25	***	***	5	10	16	17	***	***	***	***
Vermont	—	42	—	***	—	***	—	***	—	***	—	***
Virginia	33	39	12	14	21	20	40	46	***	***	***	***
Washington †	27 **	37	11	19	7	16	27	35	***	***	***	***
West Virginia	18	21	16	13	***	***	***	***	***	***	***	***
Wisconsin †	30	—	16	—	13	—	***	—	***	—	***	—
Wyoming	24	30	***	***	14	12	***	***	8	13	***	***
Other Jurisdictions												
American Samoa	—	***	—	***	—	***	—	3	—	***	—	***
District of Columbia	53	***	9	8	10	11	***	***	***	***	***	***
DDESS ²	47	51	27	27	32	38	***	***	***	***	***	45
DoDDS ³	37	43	22	25	28	28	30	35	***	***	29	38
Guam	—	***	—	***	—	***	—	13	—	***	—	***
Virgin Islands	***	***	8	4	7	2	***	***	***	***	***	***

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

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

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

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

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

Student Eligibility for Free/ Reduced-Price School Lunch

Tables 3.24 (grade 4) and 3.25 (grade 8) present the average writing score results for participating jurisdictions by students' eligibility for free/reduced-price school lunch. Table 3.25 also presents the results of the 1998 assessment. In 2002, students who were not eligible for free/reduced-price lunch scored higher on average than students who were eligible in all but one jurisdiction at grade 4 and all but three jurisdictions at grade 8. The average fourth-grade writing score ranged from 125 to 154

among students who were eligible and from 141 to 181 among students who were not eligible.

At grade 8 average scores increased since 1998 among both those students who were eligible for free/reduced-price lunch and those who were not eligible in 11 jurisdictions, only among students who were eligible in 1 jurisdiction, and only among students who were not eligible in 4 jurisdictions. A decrease in the average score for eligible students was detected in 1 jurisdiction.

Table 3.24 Average writing scale scores, by student eligibility for free/reduced-price school lunch, grade 4 public schools: By state, 2002

Grade 4	Eligible	Not eligible	Information not available
Nation (Public)	141	163	155
Alabama	130	152	150
Arizona	129	151	147
Arkansas	137	156	146
California †	134	162	147
Connecticut	154	181	186
Delaware	149	171	173
Florida	149	169	***
Georgia	138	160	139
Hawaii	139	158	***
Idaho	140	157	161
Indiana	141	160	167
Iowa †	142	160	***
Kansas †	137	158	***
Kentucky	144	165	135
Louisiana	135	156	143
Maine	142	165	167
Maryland	145	164	165
Massachusetts	151	177	174
Michigan	134	157	141
Minnesota †	147	161	153
Mississippi	135	157	141
Missouri	139	158	159
Montana †	139	157	141
Nebraska	143	162	***
Nevada	136	151	146
New Mexico	136	157	136
New York †	150	172	175
North Carolina	146	172	159
North Dakota †	142	154	***
Ohio	143	164	158
Oklahoma	136	152	133
Oregon	138	158	146
Pennsylvania	137	166	162
Rhode Island	141	169	151
South Carolina	136	155	158
Tennessee †	139	158	146
Texas	147	164	160
Utah	136	150	142
Vermont	143	163	170
Virginia	140	165	164
Washington †	143	165	160
West Virginia	140	155	144
Wyoming	144	155	153
Other Jurisdictions			
District of Columbia	131	150	***
DDESS ¹	151	162	153
DoDDS ²	154	161	159
Guam	125	141	***
Virgin Islands	125	***	***

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

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.25 Average writing scale scores, by student eligibility for free/reduced-price school lunch, grade 8 public schools: By state, 1998 and 2002

Grade 8	Eligible		Not eligible		Information not available	
	1998	2002	1998	2002	1998	2002
Nation (Public) ¹	131 *	136	156 *	161	150	154
Alabama	131	129	153	151	***	150
Arizona	129	126	152	150	145	144
Arkansas	122 *,**	131	145 *,**	150	138	***
California ^{2†}	121 *,**	132	155	158	148	145
Colorado	132	—	158	—	151	—
Connecticut	139	143	172	174	166	172
Delaware	127 *,**	142	152 *,**	167	142	***
Florida	129 *,**	141	152 *,**	163	141	162
Georgia	130	134	155	156	157	152
Hawaii	123	126	142 *,**	146	144	***
Idaho	—	140	—	156	—	154
Indiana	—	138	—	155	—	144
Kansas [‡]	—	140	—	160	—	170
Kentucky	133	138	155	158	137	147
Louisiana	127 *	133	146 *,**	155	135	141
Maine	139	141	160	163	165	153
Maryland	127 *,**	139	155 *,**	164	152	***
Massachusetts	131 *,**	141	162 *,**	173	153	161
Michigan	—	137	—	154	—	139
Minnesota [‡]	127	—	154	—	154	—
Mississippi	124 *,**	134	144 *,**	152	141	143
Missouri	127 *,**	137	148 *,**	157	133	150
Montana [‡]	138	135	155	159	146	***
Nebraska	—	141	—	163	—	***
Nevada	124	121	146	144	141	143
New Mexico	130	131	150	153	148	145
New York [‡]	131	134	156 *,**	165	151 *,**	136
North Carolina	132 *,**	142	160 *	166	151	164
North Dakota [‡]	—	134	—	151	—	***
Ohio	—	144	—	167	—	155
Oklahoma	142 *	137	158	159	150	164
Oregon [‡]	133	135	155	162	148	160
Pennsylvania	—	131	—	165	—	***
Rhode Island	131	136	155 *,**	161	***	139
South Carolina	126 *,**	134	149 *,**	157	147	146
Tennessee [‡]	135	131	154	160	***	146
Texas	141	137	163	166	150	155
Utah	130	125	146	150	147	141
Vermont	—	144	—	168	—	***
Virginia	136	140	159	162	153	166
Washington [‡]	128 *,**	141	154 *,**	161	151	153
West Virginia	132	134	152	153	141	***
Wisconsin [‡]	141	—	157	—	146	—
Wyoming	136	140	149 *,**	157	***	151
Other Jurisdictions						
American Samoa	—	95	—	***	—	***
District of Columbia	120	123	141	140	130	***
DDESS ³	157	155	162	165	***	172
DoDDS ⁴	156	159	155	163	156	161
Guam	—	115	—	137	—	***
Virgin Islands	123	128	***	***	125	***

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

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

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

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

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

³ Department of Defense Domestic Dependent Elementary and Secondary Schools. ⁴ Department of Defense Dependents Schools (Overseas).

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

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

The percentage of students performing at or above the *Proficient* level by students' eligibility for free/reduced-price school lunch is presented for participating jurisdictions in tables 3.26 and 3.27 for grades 4 and 8 respectively. Table 3.27 also presents results for grade 8 in 1998. In 2002, the percentage of fourth-graders performing at or above *Proficient* ranged from 4 to 27

percent for students who were eligible and between 15 and 57 percent for students who were not eligible.

The percentage of eighth-graders performing at or above *Proficient* increased since 1998 for both students who were eligible and students who were not eligible in 10 jurisdictions, for only eligible students in 2 jurisdictions, and for only students who were not eligible in 5 jurisdictions.

Table 3.26 Percentage of students at or above *Proficient* in writing, by eligibility for free/reduced-price school lunch, grade 4 public schools: By state, 2002

Grade 4	Eligible	Not eligible	Information not available
Nation (Public)	15	36	29
Alabama	7	26	23
Arizona	7	23	21
Arkansas	12	27	23
California ‡	12	36	21
Connecticut	27	57	64
Delaware	20	45	51
Florida	24	44	***
Georgia	14	33	11
Hawaii	15	29	***
Idaho	13	29	32
Indiana	14	31	39
Iowa ‡	14	32	***
Kansas ‡	11	29	***
Kentucky	17	38	10
Louisiana	9	25	12
Maine	18	38	40
Maryland	18	37	39
Massachusetts	22	52	49
Michigan	8	28	12
Minnesota ‡	22	33	26
Mississippi	8	26	11
Missouri	11	29	34
Montana ‡	14	27	12
Nebraska	17	34	***
Nevada	11	22	19
New Mexico	12	30	14
New York ‡	23	47	52
North Carolina	20	45	31
North Dakota ‡	14	22	***
Ohio	14	35	27
Oklahoma	11	23	17
Oregon	13	31	18
Pennsylvania	10	38	33
Rhode Island	14	42	23
South Carolina	10	26	26
Tennessee ‡	14	31	17
Texas	22	38	34
Utah	13	23	14
Vermont	16	37	45
Virginia	12	38	41
Washington ‡	16	37	34
West Virginia	12	27	17
Wyoming	18	26	27
Other Jurisdictions			
District of Columbia	7	27	***
DDESS ¹	18	33	24
DoDDS ²	26	33	30
Guam	6	15	***
Virgin Islands	4	***	***

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

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

¹ Department of Defense Domestic Dependent Elementary and Secondary Schools.

² 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 Writing Assessment.

Table 3.27 Percentage of students at or above *Proficient* in writing, by eligibility for free/reduced-price school lunch, grade 8 public schools: By state, 1998 and 2002

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

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[†] Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002. * Significantly different from 2002 when only one jurisdiction or the nation is being examined.

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

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

¹ National results for the 1998 assessment are based on the national sample, not on aggregated state assessment samples.

² Results by students' eligibility for free/reduced-price lunch do not include Los Angeles.

³ Department of Defense Domestic Dependent Elementary and Secondary Schools. ⁴ Department of Defense Dependents Schools (Overseas).

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

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

