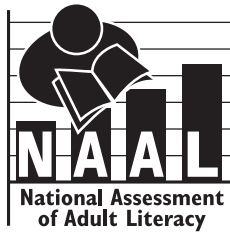


Literacy in Everyday Life

Results From the 2003 National Assessment of Adult Literacy





U.S. Department of Education
NCES 2007-480

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April 2007

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Executive Summary

The 2003 National Assessment of Adult Literacy (NAAL) assessed the English literacy of adults in the United States for the first time since the 1992 National Adult Literacy Survey. The assessment was administered to more than 19,000 adults (ages 16 and older) in households or prisons. Unlike indirect measures of literacy, which rely on self-reports and other subjective evaluations, the assessment measured literacy directly through tasks completed by adults. These tasks represent a range of literacy activities that adults are likely to face in their daily lives.

Three types of literacy were measured by the assessment on scales of 0 to 500:

- Prose literacy. The knowledge and skills needed to search, comprehend, and use information from continuous texts. Prose examples include editorials, news stories, brochures, and instructional materials.
- Document literacy. The knowledge and skills needed to search, comprehend, and use information from noncontinuous texts. Document examples include job applications, payroll forms, transportation schedules, maps, tables, and drug and food labels.
- Quantitative literacy. The knowledge and skills needed to identify and perform computations using numbers that are embedded in printed materials. Examples include balancing

Literacy Levels

Cautions in Interpretation

Demographic Characteristics and Literacy

Education and Literacy

Employment, Earnings, and Job Training

Literacy and the Family

Community and Civic Involvement

a checkbook, figuring out a tip, completing an order form, and determining the amount of interest on a loan from an advertisement.

This report describes how adults use written information in workplace, family, and community settings, as well as the relationship between literacy and formal education. The analyses in this report examine differences related to literacy based on self-reported background characteristics among groups in 2003, as well as changes within groups between 1992 and 2003, by using standard *t* tests to determine statistical significance. Statistical significance is reported at $p \leq .05$. Differences that are not statistically significant either are not discussed or are referred to as “not statistically significant.”

Literacy Levels

The Committee on Performance Levels for Adult Literacy, appointed by the National Research Council’s Board on Testing and Assessment (BOTA), recommended a set of performance levels for the prose, document, and quantitative scales. Drawing on the committee’s recommendations, the U.S. Department of Education decided to report the assessment results by using four literacy levels for these scales: *Below Basic*, *Basic*, *Intermediate*, and *Proficient*.

BOTA’s Committee on Performance Levels for Adult Literacy also recommended reporting the 2003 results by using a separate category: nonliterate in English. Adults were considered to be nonliterate in English if they were unable to complete a minimum number of simple literacy questions or if they were unable to communicate in English or Spanish. Adults who were classified as nonliterate in English because they could not complete a minimum number of simple literacy questions were generally able to complete the background questionnaire, which was administered orally in either English or Spanish; for reporting purposes, they were included in the *Below Basic* literacy level.

Adults who were classified as nonliterate in English because they were unable to communicate in either English or Spanish could not complete the background questionnaire; they are not included in the analyses in this report that rely on background data. Adults who could not be tested because of a cognitive or mental disability are also not included in the analyses in this report, but in the absence of any information about their literacy abilities, they are not considered to be nonliterate in English.

Cautions in Interpretation

The purpose of this report is to examine the relationship between literacy and various self-reported background factors. This report is purely descriptive in nature. Readers are cautioned not to draw causal inferences based solely on the results presented here. It is important to note that many of the variables examined in this report are related to one another, and complex interactions and relationships have not been explored here.

Demographic Characteristics and Literacy

Between 1992 and 2003, there were no statistically significant changes in average prose and document literacy for the total population ages 16 and older, while average quantitative literacy increased. The percentage of adults with *Below Basic* quantitative literacy decreased, and the percentage of adults with *Proficient* prose and document literacy also decreased. In 2003, some 5 percent of adults were nonliterate in English.

Women had higher average prose and document literacy than men in 2003, which was a change from 1992. In 1992, men had higher average document literacy than women, and the differences between men and women in prose literacy were not statistically significant. Men had higher average quantitative literacy than women in both 1992 and 2003, but the gap between men and women narrowed.

The prose, document, and quantitative literacy of Black adults increased between 1992 and 2003, and the prose literacy of Asian/Pacific Islander adults also increased. The average prose and document literacy of Hispanic adults decreased, but there was not a statistically significant change for Hispanic adults on the quantitative scale. There were no statistically significant changes in prose and document literacy for White adults, although their quantitative literacy increased. In 2003, White and Asian/Pacific Islander adults had higher average prose, document, and quantitative literacy than Black and Hispanic adults. Black adults had higher average prose and document literacy than Hispanic adults.

Adults who spoke only English before starting school had higher average document literacy than other adults. They also had higher average prose and quantitative literacy than adults who spoke Spanish before starting school. Among adults who spoke a language other than English before starting school, average prose and document literacy decreased as the age at which individuals learned English increased.

Between 1992 and 2003, the average literacy of adults 50 years of age and older increased on all three scales. Between 1992 and 2003, there was a decline in the average prose literacy of adults between the ages of 25 and 39 and between the ages of 40 and 49. Among all age groups, adults ages 65 and older had the lowest average prose, document, and quantitative literacy.

Adults who had been diagnosed or identified as having a learning disability had lower average prose, document, and quantitative literacy than adults who did not have a learning disability. On all three scales, a higher percentage of adults with a learning disability had *Below Basic* literacy and a lower percentage had *Proficient* literacy than adults who did not have a learning disability.

A higher percentage of adults with *Below Basic* prose, document, and quantitative literacy lived in house-

holds with income below \$10,000 than adults with higher levels of literacy. A higher percentage of adults with *Proficient* prose, document, and quantitative literacy than adults with lower levels of literacy lived in households with incomes above \$100,000.

Education and Literacy

Educational attainment increased between 1992 and 2003, with a higher percentage of adults completing an associate's or college degree and fewer adults ending their education before completing high school. In 2003, average prose, document, and quantitative literacy increased with each increasing level of education, except for students who were still in high school.

Adults who received their high school diploma or college degree at an age that indicated they likely began school at the traditional age and continued straight through until graduation had higher levels of prose, document, and quantitative literacy than adults who received their high school diploma or college degree when they were older.

Between 1992 and 2003, prose literacy declined for adults with a high school diploma, and prose and document literacy declined for adults with some college or with higher levels of education. There were no statistically significant changes in quantitative literacy at any education level between 1992 and 2003.

White adults had higher average prose literacy scores than Black and Hispanic adults for all levels of educational attainment. Between 1992 and 2003, average prose and quantitative literacy scores increased for Black adults with a high school diploma, a GED, or some vocational classes taken after high school. Average prose literacy declined among Hispanic adults at all educational levels except those who were still in high school or who had a college degree or higher. Average document literacy decreased among Hispanic adults who had completed some college or

obtained an associate's degree or whose highest educational level was less than high school or some high school.

Employment, Earnings, and Job Training

In 2003, adults with higher literacy levels were more likely to be employed full-time and less likely to be out of the labor force than adults with lower literacy levels. Adults with lower literacy levels also generally earned lower incomes.

On all three literacy scales, a higher percentage of adults with *Proficient* literacy were employed in professional and related occupations and management, business, and financial occupations than in other occupations. Many individuals with lower literacy levels were employed in service occupations. Specifically, 30 to 35 percent of adults with *Below Basic* and 22 to 24 percent of adults with *Basic* prose, document, and quantitative literacy worked in service jobs, compared with 7 to 10 percent of adults with *Proficient* prose, document, and quantitative literacy.

Women with higher levels of literacy were less likely to have received public assistance than women with low levels of literacy. If they had received public assistance, they did so for a shorter amount of time than women with lower literacy levels.

Most adults who thought their reading, mathematics, or computer skills limited their job opportunities had not participated in any job training in the past year.

Literacy and the Family

In 2003, a higher percentage of parents with *Intermediate* or *Proficient* prose literacy than parents

with *Basic* or *Below Basic* prose literacy read to their young children 5 or more days per week. A higher percentage of parents with *Intermediate* or *Proficient* prose literacy than parents with lower levels of literacy had children between the ages of 3 and 5 who knew the alphabet.

A higher percentage of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* or *Below Basic* prose literacy talked to their school-age children every day about things they studied in school. The percentage of parents who never helped their children with homework or worked on homework with their children declined with each higher prose literacy level.

Community and Civic Involvement

Among U.S. citizens of voting age, the percentage of adults who voted in the 2000 presidential election was higher in each prose and document literacy level than in the next lower level. Adults with lower levels of prose and document literacy were also less likely to obtain information about current events, public affairs, and the government from a variety of print and nonprint sources than were adults with higher levels of literacy.

Adults with higher levels of prose and document literacy gave unpaid time as a volunteer to a group or an organization more frequently than adults with lower levels of literacy; the percentage of adults who volunteered once a week or more during the previous year increased at each higher level of literacy. Adults with higher levels of prose and document literacy were also more likely to send and receive e-mail or to use the Internet—two activities generally required for participating in online communities.

Acknowledgments

The National Assessment of Adult Literacy (NAAL) is a complex project whose successful completion is due to the work of countless individuals from many organizations. We at the American Institutes for Research (AIR) especially want to thank the staff at the National Center for Education Statistics (NCES) who have supported the project. Sheida White, the NAAL project officer, has provided substantive guidance and direction to all aspects of the assessment. Her intellectual contributions are reflected throughout the assessment, analyses, and report. Andrew Kolstad, the project's senior technical advisor and project officer of the 1992 National Adult Literacy Survey, provided both technical guidance and an institutional memory throughout the project and helped us reflect on all statistical and technical issues. Steven Gorman also played a key role in guiding all aspects of the assessment, especially those related to the statistical aspects of the assessment.

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Introduction

Using written information is an important part of everyday life in the United States. Adults in most workplaces are surrounded by written information: health and safety postings, brochures describing their benefits, instruction manuals, memos, reports, and e-mail. Parents of school-aged children often receive written notices and forms from their children's schools: field trip permission slips, flyers about parent meetings or parent-teacher conferences, descriptions of course offerings, and applications for determining eligibility for free lunches and subsidized medical care. Older adults receive mailings explaining their Social Security and Medicare benefits. The millions of adults who take medication encounter labels explaining dosages, timing for taking the medication, interactions with other medications or food, and possible side effects. Getting a driver's license, registering to vote, and renting or purchasing a place to live all require reading and understanding written information.

The 2003 National Assessment of Adult Literacy assessed the English literacy of adults (ages 16 and older) in the United States for the first time since the 1992 National Adult Literacy Survey. The assessment was administered to approximately 18,000 adults living in households and to 1,200 prison inmates. This report presents findings from the 2003 assessment and describes changes in adult literacy since 1992.

Defining and Measuring
Literacy

Establishing Literacy Levels

Conducting the Survey

Interpretation of Results

Cautions in Interpretation

Organization of the Report

It describes how American adults 16 years of age and older with varying literacy levels use written information in workplace, family, and community settings at the beginning of the 21st century. The report also examines the relationship between literacy and formal education and between literacy and health.

Additional reports are planned using data from the 2003 NAAL, including a report that examines the basic reading skills of America's adults and explores the relationship between basic reading skills and literacy. An in-depth look at adults who were at the lowest literacy levels in 2003 will also be presented in that report. A separate report will describe the literacy of prison inmates. The report *The Health Literacy of America's Adults* was published in September 2006 (Kutner, Greenberg, Jin, and Paulsen 2006)

Defining and Measuring Literacy

Defining Literacy

Unlike indirect measures of literacy—which rely on self-reports and other subjective evaluations of literacy and education—the 1992 and 2003 adult literacy assessments measured literacy directly by tasks representing a range of literacy activities that adults are likely to face in their daily lives.

The literacy tasks in the assessment were drawn from actual texts and documents, which were either used in their original format or reproduced in the assessment booklets. Each question appeared before the materials needed to answer it, thus encouraging respondents to read with purpose.

Respondents could correctly answer many assessment questions by skimming the text or document for the information necessary to perform a given literacy task. All tasks were open-ended.

The 2003 adult literacy assessment covered the same content as the 1992 assessment, and both assessments used the same definition of literacy:

Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.

This definition implies that literacy goes beyond simply being able to sound out or recognize words and understand text. A central feature of the definition is that literacy is related to achieving an objective and that adults often read for a purpose.

Measuring Literacy

As in 1992, three literacy scales—prose literacy, document literacy, and quantitative literacy—were used in the 2003 assessment:

- *Prose literacy.* The knowledge and skills needed to perform prose tasks (i.e., to search, comprehend, and use information from continuous texts). Prose examples include editorials, news stories, brochures, and instructional materials. Prose texts can be further broken down as expository, narrative, procedural, or persuasive.
- *Document literacy.* The knowledge and skills needed to perform document tasks (i.e., to search, comprehend, and use information from noncontinuous texts in various formats). Document examples include job applications, payroll forms, transportation schedules, maps, tables, and drug and food labels.
- *Quantitative literacy.* The knowledge and skills required to perform quantitative tasks (i.e., to identify and perform computations, either alone or sequentially, using numbers embedded in printed materials). Examples include balancing a checkbook, figuring out a tip, completing an order form, and determining the amount of interest on a loan from an advertisement.

Table 1-1 shows the correlations among the prose, document, and quantitative scales in 2003. All the correlations are between .86 and .89. In chapter 12

Table 1-1. Correlations among the prose, document, and quantitative scales: 2003

	Prose	Document	Quantitative
Prose	1.0	.86	.87
Document	.86	1.0	.89
Quantitative	.87	.89	1.0

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

of the *Technical Report and Data File User's Manual for the 1992 National Adult Literacy Survey*, Rock and Yamamoto (2001) examined the correlations among the three scales and concluded that even though the scales were highly related, there were still group differences across the scales, indicating that the scales did not all measure the same construct.

Several changes were made to the 1992 data. Several items were recategorized onto different literacy scales (prose to document). In addition, several dichotomous items were rescored using the partial credit model. To accommodate these changes, the 1992 data were recalibrated to provide item characteristic parameters comparable to the 2003 data. Data from the common test blocks used in both the 1992 and 2003 assessments were pooled for this rescaling. Following standard psychometric procedure for linking across years, the population mean and standard deviation of the 1992 scales were kept constant in 1992 and 2003, even though the rescaling changed the item parameters slightly. Because of the rescaling, the 1992 results in this report may differ slightly from the findings reported following the 1992 data collection.

Background Questionnaire

The 2003 National Assessment of Adult Literacy household background questionnaire was used to collect data about various demographic and background characteristics. A primary goal of the assessment was to measure literacy trends between 1992 and 2003, so many of the questions on the 2003 background questionnaire were identical to ques-

tions on the 1992 background questionnaire. The 2003 background questionnaire also included some new questions that were added in response to input from stakeholders and users of the 1992 data.

A separate background questionnaire was developed for the prison study. The prison background questionnaire was used to collect demographic data on inmates and provided contextual data on their experiences in prison that were related to literacy, including participation in classes, job training, and prison work assignments.

Establishing Literacy Levels

The Committee on Performance Levels for Adult Literacy, appointed by the National Research Council's Board on Testing and Assessment (BOTA), recommended a set of performance levels for the 2003 assessment (Hauser et al. 2005). Drawing on the committee's recommendations, the U.S. Department of Education decided to report the assessment results by using four literacy levels for each scale. Table 1-2 summarizes the knowledge, skills, and capabilities that adults needed to demonstrate to be classified into one of the four levels. Figures 1-1, 1-2, and 1-3 show the types of tasks and where they are located on the prose, document, and quantitative scales.

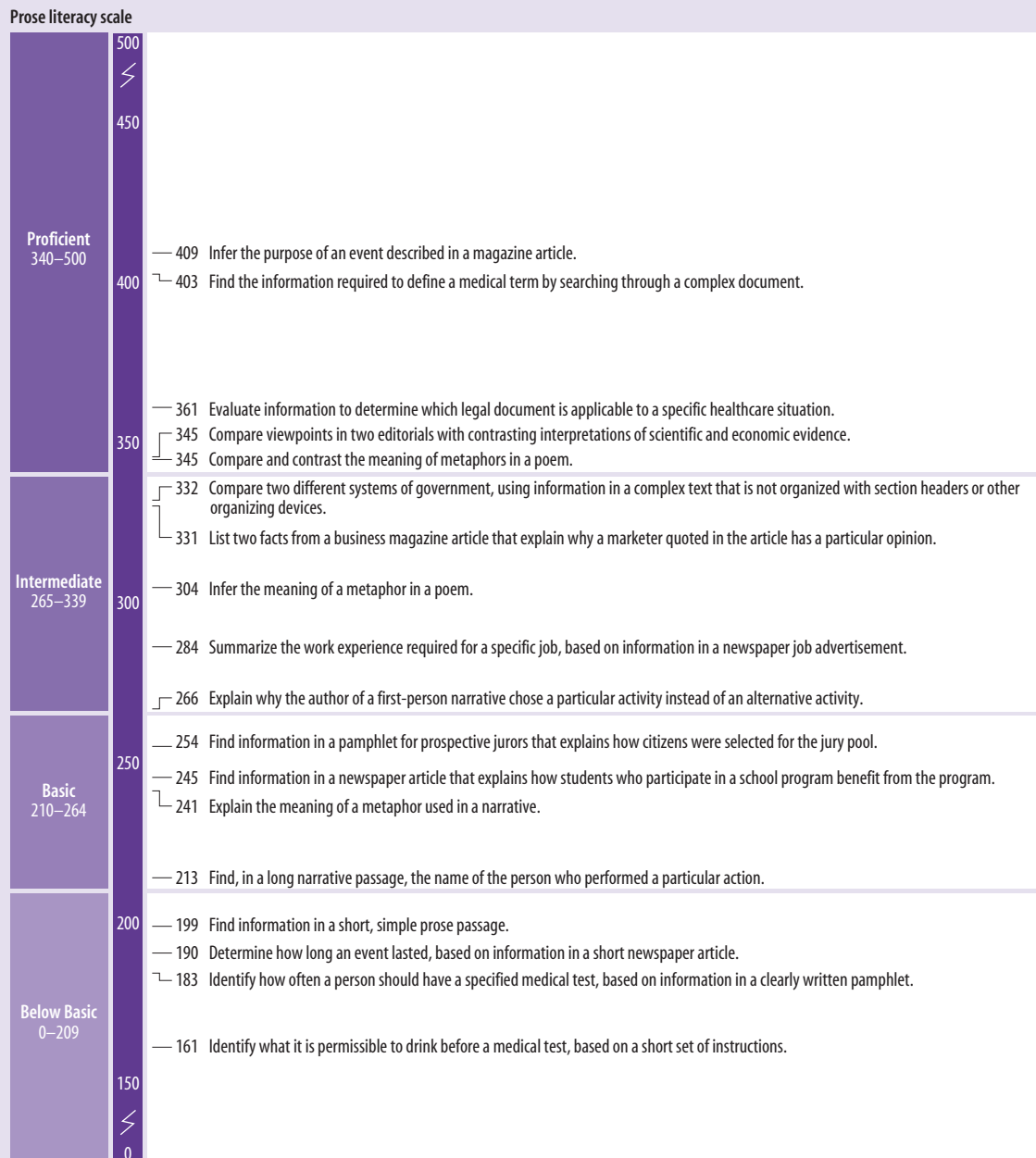
BOTA's Committee on Performance Levels for Adult Literacy also recommended reporting the 2003 results by using a separate category: nonliterate in English. Adults were considered to be nonliterate in English if they were unable to complete a minimum number of simple literacy questions or if they were unable to communicate in English or Spanish. Adults who were classified as nonliterate in English because they could not complete a minimum number of simple literacy questions were generally able to complete the background questionnaire, which was administered orally in either English or Spanish; for reporting purposes, they

Table 1-2. Overview of the literacy levels

Level and definition	Key abilities associated with level
<p>Below Basic indicates no more than the most simple and concrete literacy skills.</p> <p>Score ranges for <i>Below Basic</i>:</p> <p>Prose: 0–209 Document: 0–204 Quantitative: 0–234</p>	<p>Adults at the <i>Below Basic</i> level range from being nonliterate in English to having the abilities listed below:</p> <ul style="list-style-type: none"> ■ locating easily identifiable information in short, commonplace prose texts ■ locating easily identifiable information and following written instructions in simple documents (e.g., charts or forms) ■ locating numbers and using them to perform simple quantitative operations (primarily addition) when the mathematical information is very concrete and familiar
<p>Basic indicates skills necessary to perform simple and everyday literacy activities.</p> <p>Score ranges for <i>Basic</i>:</p> <p>Prose: 210–264 Document: 205–249 Quantitative: 235–289</p>	<ul style="list-style-type: none"> ■ reading and understanding information in short, commonplace prose texts ■ reading and understanding information in simple documents ■ locating easily identifiable quantitative information and using it to solve simple, one-step problems when the arithmetic operation is specified or easily inferred
<p>Intermediate indicates skills necessary to perform moderately challenging literacy activities.</p> <p>Score ranges for <i>Intermediate</i>:</p> <p>Prose: 265–339 Document: 250–334 Quantitative: 290–349</p>	<ul style="list-style-type: none"> ■ reading and understanding moderately dense, less commonplace prose texts as well as summarizing, making simple inferences, determining cause and effect, and recognizing the author’s purpose ■ locating information in dense, complex documents and making simple inferences about the information ■ locating less familiar quantitative information and using it to solve problems when the arithmetic operation is not specified or easily inferred
<p>Proficient indicates skills necessary to perform more complex and challenging literacy activities.</p> <p>Score ranges for <i>Proficient</i>:</p> <p>Prose: 340–500 Document: 335–500 Quantitative: 350–500</p>	<ul style="list-style-type: none"> ■ reading lengthy, complex, abstract prose texts as well as synthesizing information and making complex inferences ■ integrating, synthesizing, and analyzing multiple pieces of information located in complex documents ■ locating more abstract quantitative information and using it to solve multi-step problems when the arithmetic operations are not easily inferred and the problems are more complex

NOTE: Although the literacy levels share common names with the National Assessment of Educational Progress (NAEP) levels, they do not correspond to the NAEP levels.
 SOURCE: Hauser, R.M, Edley, C.F. Jr., Koenig, J.A., and Elliott, S.W. (Eds.). (2005). *Measuring Literacy: Performance Levels for Adults, Interim Report*. Washington, DC: National Academies Press; White, S. and Dillow, S. (2005). *Key Concepts and Features of the 2003 National Assessment of Adult Literacy* (NCES 2006-471). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

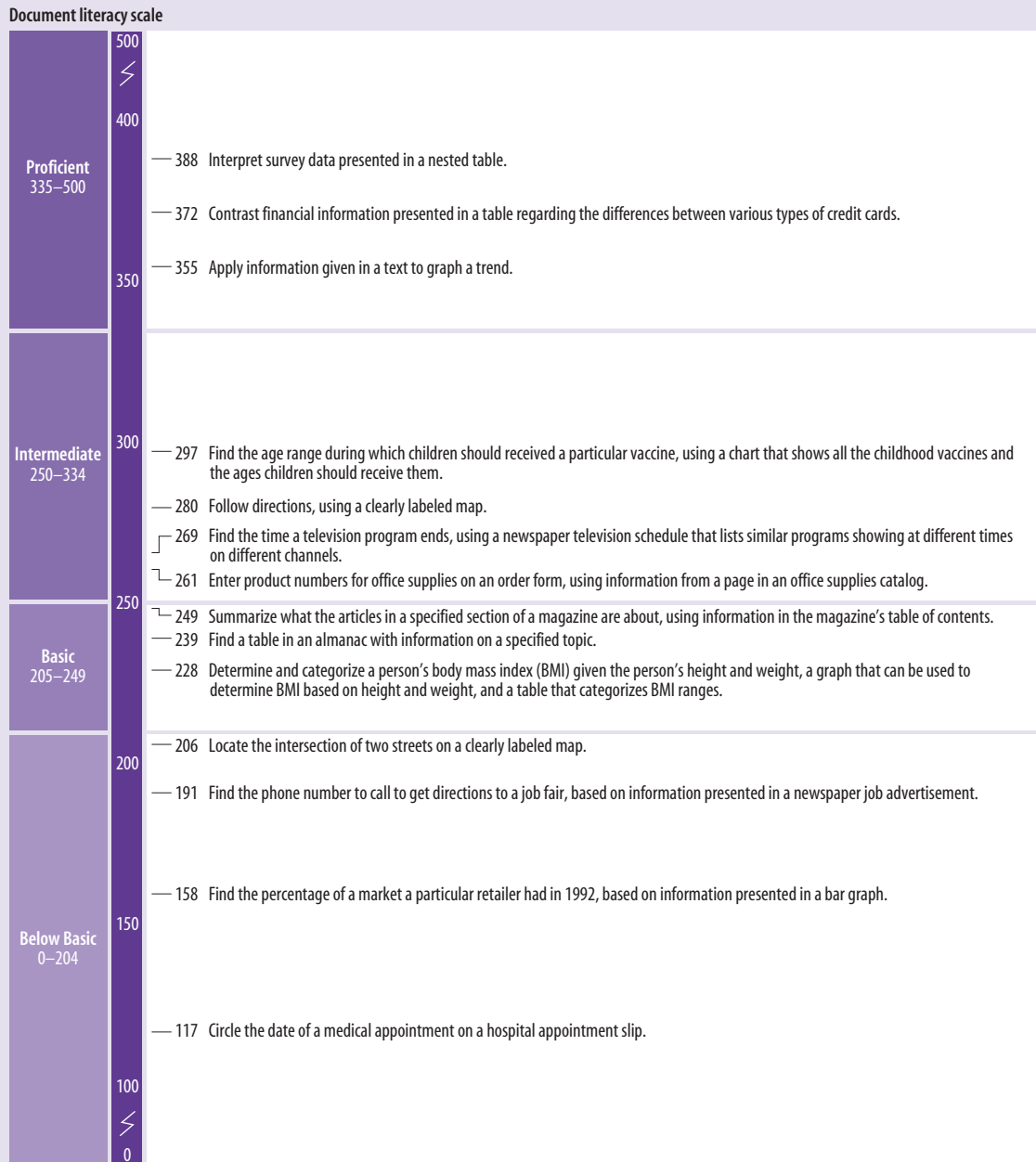
Figure 1-1. Difficulty of selected prose literacy tasks: 2003



NOTE: The position of a question on the scale represents the average scale score attained by adults who had a 67 percent probability of successfully answering the question. Only selected questions are presented. Scale score ranges for performance levels are referenced on the figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

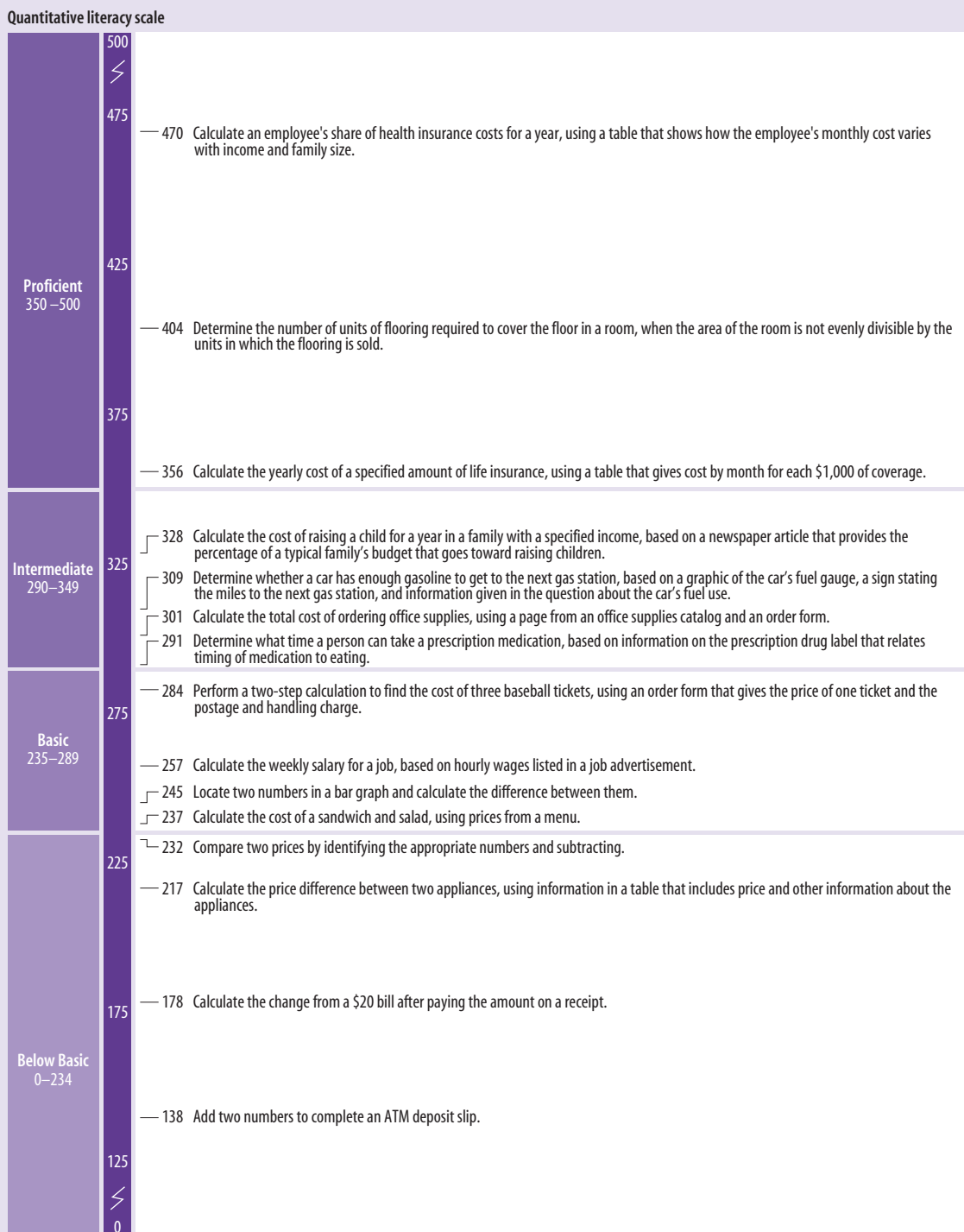
Figure 1-2. Difficulty of selected document literacy tasks: 2003



NOTE: The position of a question on the scale represents the average scale score attained by adults who had a 67 percent probability of successfully answering the question. Only selected questions are presented. Scale score ranges for performance levels are referenced on the figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 1-3. Difficulty of selected quantitative literacy tasks: 2003



NOTE: The position of a question on the scale represents the average scale score attained by adults who had a 67 percent probability of successfully answering the question. Only selected questions are presented. Scale score ranges for performance levels are referenced on the figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

were included in the *Below Basic* literacy level. Adults who were classified as nonliterate in English because they were unable to communicate in either English or Spanish could not complete the background questionnaire; they are not included in the analyses in this report that rely on background data. Adults who could not be tested because of a cognitive or mental disability are also not included in the analyses in this report, but in the absence of any information about their literacy abilities, they are not considered to be nonliterate in English.

Conducting the Survey¹

The 2003 National Assessment of Adult Literacy included two samples: (1) adults ages 16 and older living in households and (2) inmates ages 16 and older in federal and state prisons. Each sample was weighted to represent its share of the total population of the United States, and the samples were combined for reporting. Household data collection was conducted from March 2003 through February 2004; prison data collection was conducted from March through July 2004. For the household sample, the screener response rate was 82 percent and the background questionnaire response rate was 76 percent. The final household sample response rate was 62 percent. For the prison sample, 97 percent of prisons who were selected for the study agreed to participate and the background questionnaire response rate for prison inmates was 91 percent. The final prison sample response rate was 88 percent.

Household interviews were conducted in respondents' homes; prison interviews usually took place in a classroom or library in the prison. Whenever possible, interviewers administered the background questionnaire and assessment in a private setting.

¹ Nonresponse bias analyses are discussed on page 102 of the report. All percentages in this section are weighted. For the unweighted percentages, see tables C-1 and C-2 in appendix C.

Assessments were administered one-on-one using a computer-assisted personal interviewing system (CAPI) programmed into laptop computers. Respondents were encouraged to use whatever aids they normally used when reading and when performing quantitative tasks, including eyeglasses, magnifying glasses, rulers, and calculators.

Three percent of adults were unable to participate in the assessment because they could not communicate in either English or Spanish or because they had a mental disability that prevented them from being tested. Literacy scores for these adults could not be estimated, and they are not included in the results presented in this report.

Additional information on sampling, response rates, and data collection procedures is in appendix C.

Interpretation of Results

The statistics presented in this report are estimates of performance based on a sample of respondents, rather than the values that could be calculated if every person in the nation answered every question on the assessment. Estimates of performance of the population and groups within the population were calculated by using sampling weights to account for the fact that the probabilities of selection were not identical for all respondents. Information about the uncertainty of each statistic that takes into account the complex sample design was estimated by using Taylor series procedures to estimate standard errors.

The analyses in this report examine differences related to literacy based on self-reported background characteristics among groups in 2003, as well as changes within groups between 1992 and 2003, by using standard *t* tests to determine statistical significance. Statistical significance is reported at $p \leq .05$. Differences between averages or percentages that are statistically significant are discussed by using comparative terms such as *higher* or *lower*. Differences that are

not statistically significant either are not discussed or are referred to as “not statistically significant.” Failure to find a statistically significant difference should not be interpreted as meaning that the estimates are the same; rather, failure to find a difference may also be due to measurement error or sampling.

Detailed tables with estimates and standard errors for all tables and figures in this report are in appendix D. Appendix C includes more information about the weights used for the sample and the procedures used to estimate standard errors and statistical significance.

Cautions in Interpretation

The purpose of this report is to examine the relationship between literacy and various self-reported background factors. This report is purely descriptive. Readers are cautioned not to draw causal inferences based solely on the results presented here. It is important to note that many of the variables examined in this report are related to one another, and complex interactions and relationships have not been explored here.

Organization of the Report

Chapter 2 of the report presents the prose, document, and quantitative literacy for the adult population of the United States as a whole and discusses how literacy changed between 1992 and 2003. The chapter also examines how literacy varies across groups with different demographic characteristics, including gender, race and ethnicity, language background, age, and household income. With the exception of the analyses related to household income, all the analyses in the chapter are based on the combined household and prison samples.

Chapter 3 explores the relationship between education and literacy and also discusses how that relationship changed between 1992 and 2003. In addition to focusing on educational attainment, the analyses in

the chapter examine the relationship between literacy and other types of adult education, including basic skills classes, English as a second language classes, and information technology (IT) certification. The chapter also includes a focus on educational attainment by race and ethnicity. All analyses in the chapter are based on the combined household and prison samples.

Chapter 4 examines how adults with different levels of literacy functioned in the labor market and the workplace and also discusses changes between 1992 and 2003. Topics explored in the chapter include employment status, occupation, weekly wage or salary, job training, and participation in public assistance programs. All analyses in the chapter are based on the household sample only because prison inmates are not part of the same labor market as adults living in households.

Chapter 5 examines how parents, grandparents, and guardians with different literacy levels interacted with the children living in their homes around issues related to literacy and school. The chapter also describes the relationship between the literacy of adults living in a home and the likelihood that the home had educational resources—including books and computers—that encourage children to read and to actively engage in other academic and intellectual pursuits. Analyses in the chapter are limited to the household sample because prison inmates do not have the same opportunity to interact with children as do adults living in households. Additionally, because the types of educational activities that parents do with their children change as the children get older, many of the analyses in the chapter are limited to parents or households with children in an age range at which the activity being discussed is likely to occur.

Chapter 6 examines how adults with different literacy levels participated in government and community affairs by voting, staying informed, and volunteer-

ing. Because most of the background questions on which this chapter is based were new in 2003, the analyses in the chapter are based on the 2003 sample only. Prison inmates are not included in the analyses in this chapter because they are not able to vote or participate in community activities outside the prison and do not have the same opportunities to stay informed about issues related to current events, public affairs, and the government.

The analyses for chapters 2 and 3 present results from all three literacy scales: prose, document, and

quantitative. The analyses in chapters 4, 5, and 6—which look at literacy in workplace, family, and community settings—present some results using only one or two of the three scales. In these instances, results for the other scale(s) are presented in appendix E.

Throughout the report, 1992 results are presented in grey or black and 2003 results are presented in color. The years are also labeled on the figure axes next to the corresponding results.

Demographic Characteristics and Literacy

The 2003 adult literacy assessment examined the relationship between demographic characteristics and literacy, including changes in literacy between 1992 and 2003. The population of the United States has grown more diverse since adult literacy was last assessed in 1992 (table 2-1). Between 1992 and 2003, the percentages of adults living in the United States who were Hispanic or Asian/Pacific Islander increased, and the percentage who were non-Hispanic White decreased. In 1992, 5 percent of the U.S. adult population spoke only Spanish before starting school; by 2003, that percentage had increased to 8 percent. Over the same period, the percentage of the U.S. adult population who spoke only English before starting school decreased from 86 to 81 percent.

The adult population of the United States also got older between 1992 and 2003 (table 2-1). Although the percentage of the population ages 65 and older did not change, adults ages 50 to 64 went from 16 percent of the population to 21 percent, and adults ages 40 to 49 went from 17 percent of the population to 20 percent.

The analyses in this chapter examine how literacy levels for the total adult population and within different demographic groups changed between 1992 and 2003 and also how literacy levels varied among different demographic groups. The relationship between literacy and poverty is also examined. All

Total Population

Gender

Race and Ethnicity

Language Background

Age

Learning Disabilities

Household Income

Summary

Table 2-1. Percentage of adults in selected population groups: 1992 and 2003

Characteristic	1992	2003
Gender		
Male	48	49
Female	52	51
Race/ethnicity		
White	77	70*
Black	11	12
Hispanic	8	12*
Asian/Pacific Islander	2	4*
American Indian/Alaska Native	1	1
Multiracial	—	2
Language spoken before starting school		
English only	86	81*
English and Spanish	2	2
English and other language	3	4
Spanish	5	8*
Other language	4	5
Age learned English		
Native Language English Only	86	81*
10 or younger	8	10*
11 to 15	2	2*
16 to 20	1	2
21 or older	2	3*
Does not speak English	1	3*
Age		
16–18	6	6
19–24	13	11*
25–39	33	28*
40–49	17	20*
50–64	16	21*
65 and older	15	15
Household income		
Less than \$10,000	—	10
\$10,000–\$14,999	—	7
\$15,000–\$19,999	—	6
\$20,000–\$29,999	—	12
\$30,000–\$39,999	—	11
\$40,000–\$59,999	—	19
\$60,000–\$99,999	—	22
\$100,000 or greater	—	13

— Not available.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. In 1992, respondents were allowed to identify only one race but could identify “other” as their race. In 2003, respondents were allowed to identify multiple races but could not choose “other” as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages. Results for adults who identified “other” as their race in 1992 are not included in this table. The percentage of the population that identified “other” as their race in 1992 rounds to 0. Comparable household income data were not available for 1992.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

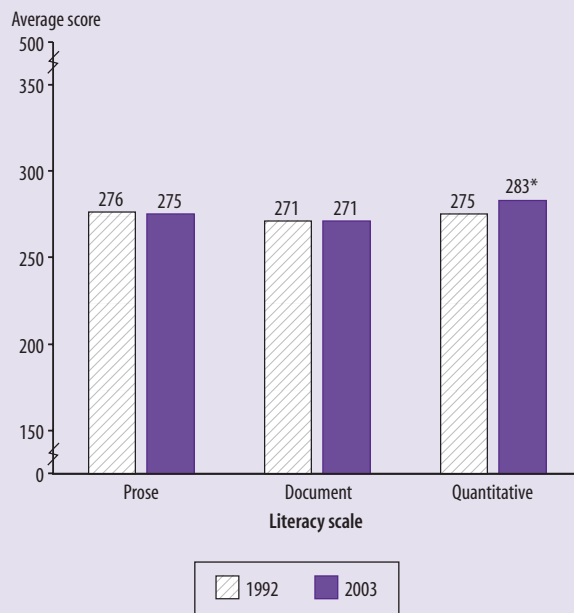
analyses in this chapter, except for those relating to poverty, are based on the combined household and prison samples.

Total Population

There were no statistically significant differences in the average prose and document literacy of the adult population of the United States between 1992 and 2003 (figure 2-1). Average quantitative literacy increased from 275 to 283.

In 2003, some 30 million American adults had *Below Basic* prose literacy, 27 million had *Below Basic* document literacy, and 46 million had *Below Basic* quantitative literacy. There were some changes in the distribution of adults among the four literacy levels

Figure 2-1. Average prose, document, and quantitative literacy scores of adults: 1992 and 2003



*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

between 1992 and 2003 (figure 2-2). Between 1992 and 2003, the percentage of adults with *Proficient* prose literacy decreased. On the document scale, the percentage of adults with *Below Basic* and *Proficient* literacy declined, and the percentage of adults with *Intermediate* literacy increased. The percentage of adults with *Below Basic* quantitative literacy declined between 1992 and 2003, and the percentage of adults with *Intermediate* quantitative literacy increased.

Nonliterate in English

In 2003, approximately 3 percent of the NAAL sample (representing 7 million adults in the U.S. adult population) at the bottom of the *Below Basic* level did poorly on the easiest test questions. They were considered to be nonliterate in English.

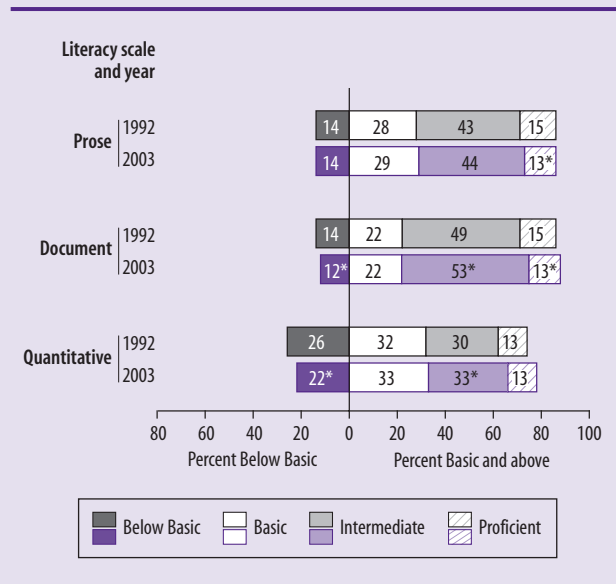
Another 2 percent of the NAAL sample (representing approximately 4 million adults in the U.S. adult

population) could not take the test in 2003 because of language barriers. They did not speak either English or Spanish, the two languages in which interviews were conducted.² They also could not understand the interviewers when the interviewers tried to ask them the questions on the background questionnaire, such as age, education, and income. Because no test results and very little other information are available on these adults who could not be interviewed in either English or Spanish, they are not included in the results presented in this report.

These adults who could not be interviewed in either English or Spanish (representing 2 percent of the U.S. adult population), along with those who did very poorly on the simple test questions (representing 3 percent of the U.S. adult population), are considered to be nonliterate in English. A total of 5 percent of the adult population of the United States (11 million adults) is estimated to be nonliterate in English.

Although both the adults who could not participate in the assessment because of language barriers and the adults who did poorly on the easiest test questions are all considered to be nonliterate in English, the adults who could not participate in the assessment because of language barriers (representing 2 percent of the U.S. adult population) are not included in the results presented in this report. These adults could not be included because they were unable to provide the background information that forms the basis for this report. The adults who are considered to

Figure 2-2. Percentage of adults in each prose, document, and quantitative literacy level: 1992 and 2003



*Significantly different from 1992.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

²Although interviews were conducted in English or Spanish, all materials that respondents were asked to read were in English only. The number 4 million, as well as the number 7 million in the previous paragraph, is based on the entire adult population of the United States. Although the NAAL sample was considerably smaller than this, it was designed to be representative of the adult population of the United States, so results for all adults can be inferred on the basis of the NAAL data.

be nonliterate in English because they did poorly on the easiest test questions (representing 3 percent of the U.S. adult population) were generally able to respond to the background questionnaire, which was administered orally. These adults are included in the *Below Basic* category in this report.

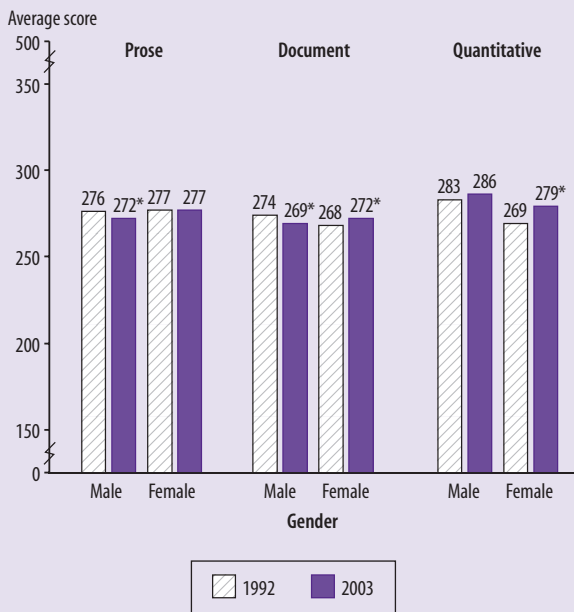
Gender

In 2003, women had higher average prose and document literacy than men, and men had higher average quantitative literacy than women (figure 2-3). In 1992, there was no difference between men and women in their average prose literacy, although men had higher average document and quantitative literacy than women.

Between 1992 and 2003, women’s average document and quantitative literacy increased, while

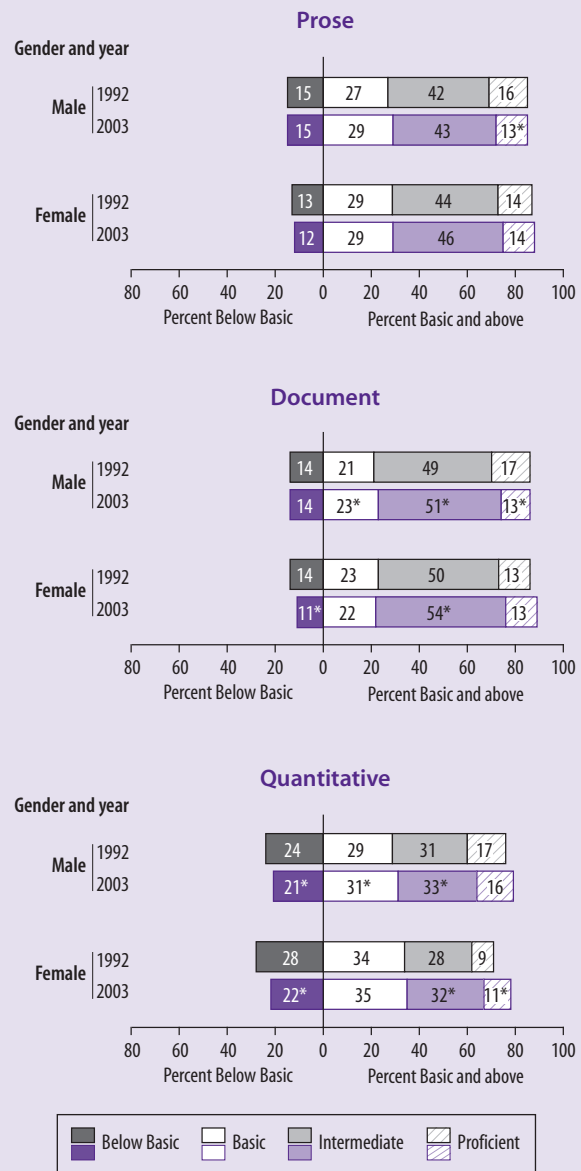
women’s average prose literacy remained at 277. During this same time period, average prose and document literacy of men declined, while there was not a statistically significant change in average quan-

Figure 2-3. Average prose, document, and quantitative literacy scores of adults, by gender: 1992 and 2003



*Significantly different from 1992.
 NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-4. Percentage of adults in each prose, document, and quantitative literacy level, by gender: 1992 and 2003



*Significantly different from 1992.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

titative literacy for men. Between 1992 and 2003, the gap in quantitative literacy between men and women narrowed.

There were some changes in the distribution of men and women among the literacy levels between 1992 and 2003 (figure 2-4). The percentage of women with *Below Basic* quantitative and document literacy declined. The percentage of men with *Below Basic* quantitative literacy also declined, as did the percentage of men with *Proficient* prose and document literacy. The percentage of women with *Proficient* quantitative literacy increased.

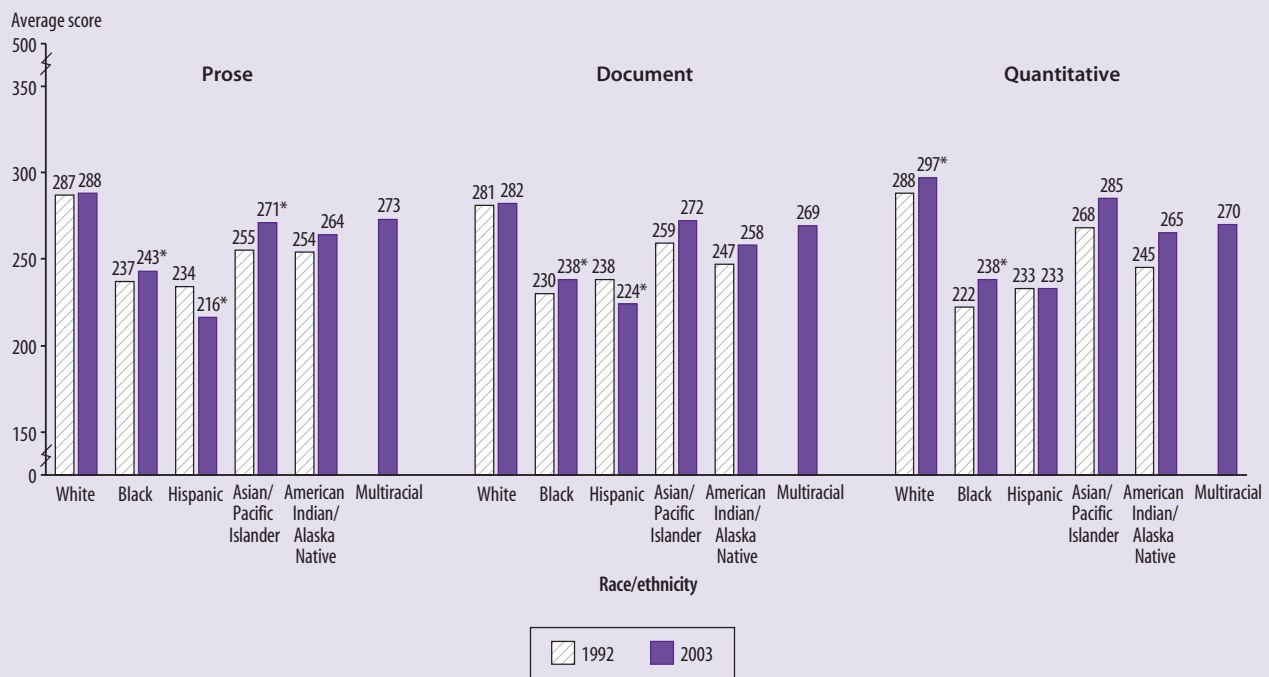
Race and Ethnicity

In 2003, the average prose, document, and quantitative literacy of White and Asian/Pacific Islander adults was higher than for Black and Hispanic adults (figure 2-5).³ Black adults had higher average prose and document literacy than Hispanic adults.

Black adults had higher average prose, document, and quantitative literacy in 2003 than in 1992. The average prose literacy of Asian/Pacific Islander adults increased as well. During the same period, the

³ The way race and ethnicity were measured changed between 1992 and 2003. This change is discussed in appendix B.

Figure 2-5. Average prose, document, and quantitative literacy scores of adults, by race/ethnicity: 1992 and 2003



*Significantly different from 1992.

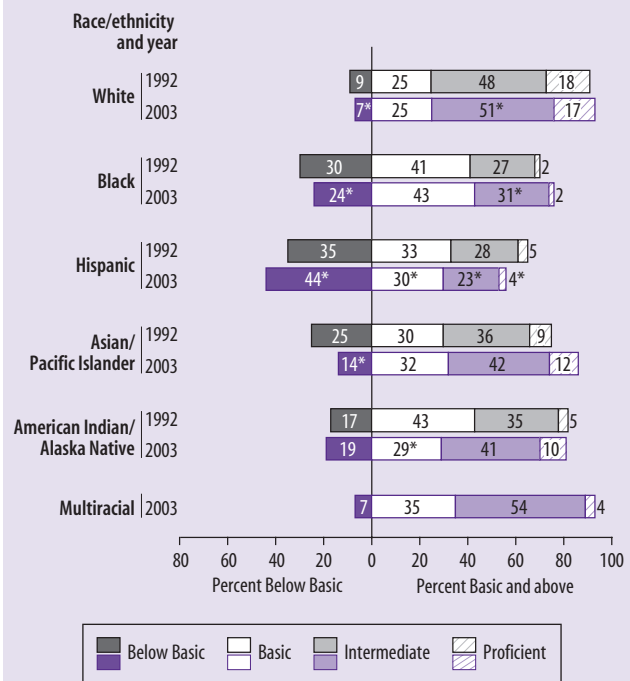
NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this figure. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

average prose and document literacy of Hispanic adults declined, while their average quantitative literacy remained the same. Average quantitative literacy increased among White adults, but there were no significant changes among White adults in prose and document literacy.

Between 1992 and 2003, there was a decrease in the percentages of White, Black, and Asian/Pacific Islander adults with *Below Basic* prose, document, and quantitative literacy, while there was an increase in the percentage of Hispanic adults with *Below Basic* prose and document literacy (figures 2-6a, 2-6b, and 2-6c). The percentage of American Indian and Alaska Native adults with *Basic* prose literacy decreased (figure 2-6a). The percentage of White adults with *Proficient* document literacy also declined (figure 2-6b).

Figure 2-6a. Percentage of adults in each prose literacy level, by race/ethnicity: 1992 and 2003

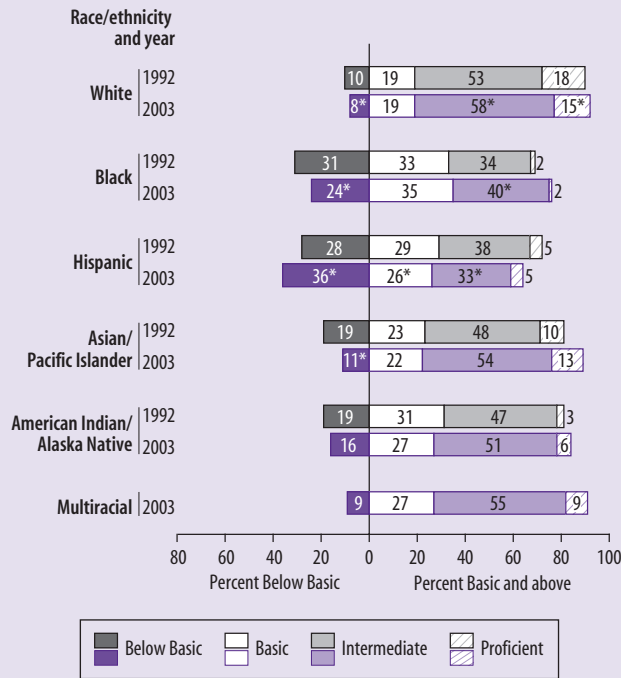


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this figure. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-6b. Percentage of adults in each document literacy level, by race/ethnicity: 1992 and 2003

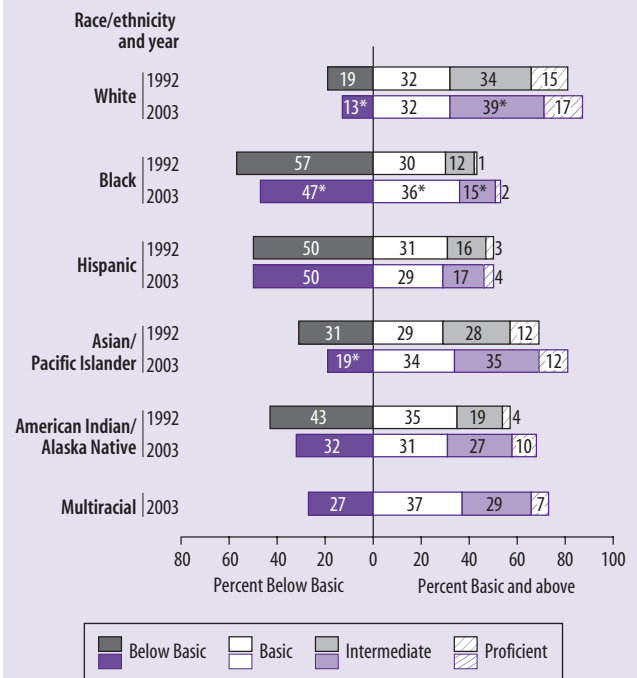


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this figure. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-6c. Percentage of adults in each quantitative literacy level, by race/ethnicity: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this figure. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Hispanic Ethnicity

In both 1992 and 2003, Hispanics of Mexican origin represented the largest Hispanic ethnicity in the U.S. (table 2-2). Between 1992 and 2003, the percentage of Hispanics of Central or South American origin increased from 11 to 16 percent and the percentage of Hispanics of other origin decreased from 17 to 12 percent in the United States.

In 2003, Hispanic adults of Puerto Rican and other origin had higher average prose and document literacy than Hispanic adults of Mexican and Central or South American origin (figure 2-7). Hispanic adults of Puerto Rican origin also had higher average quantitative literacy than Hispanic adults of Mexican origin.

Average prose and document literacy for Hispanic adults of Mexican and Central or South American

origin declined between 1992 and 2003. Average document and quantitative literacy improved for Hispanic adults of Puerto Rican origin between 1992 and 2003.

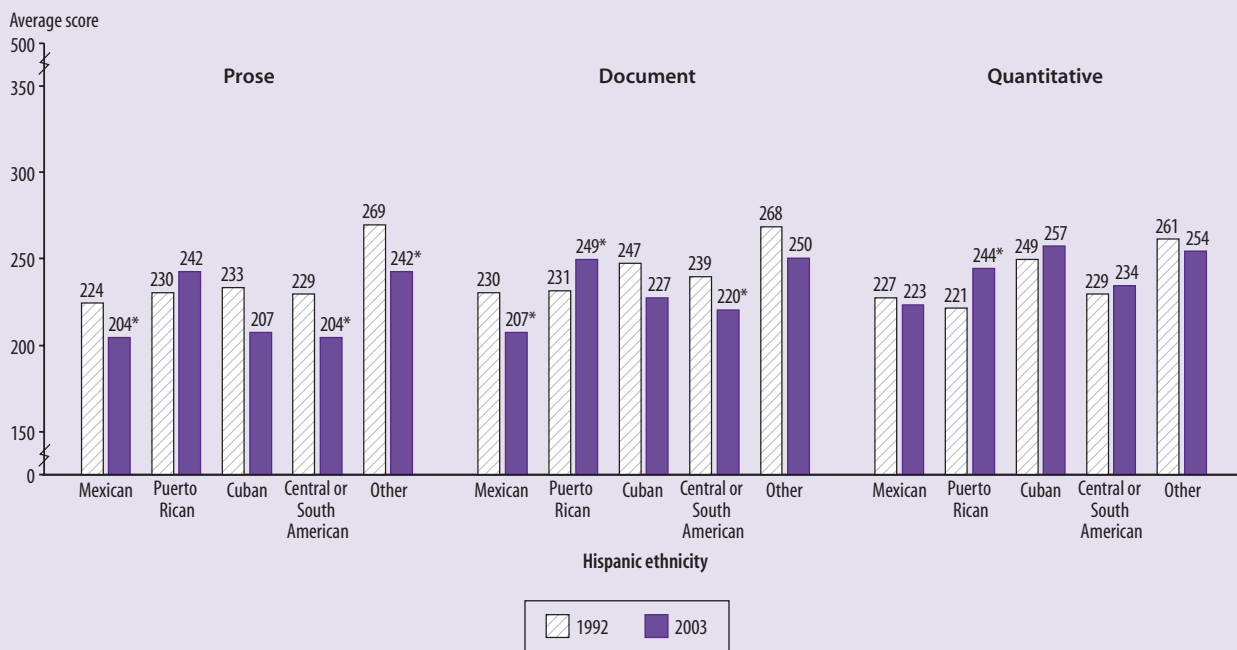
Table 2-2. Percentage of Hispanic adults, by Hispanic ethnicity: 1992 and 2003

Hispanic ethnicity	1992	2003
Mexican	55	58
Puerto Rican	12	10
Cuban	5	4
Central or South American	11	16*
Other	17	12*

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. All adults of Hispanic origin are classified as Hispanic, regardless of race. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-7. Average prose, document, and quantitative literacy scores of adults, by Hispanic ethnicity: 1992 and 2003



*Significantly different from 1992.

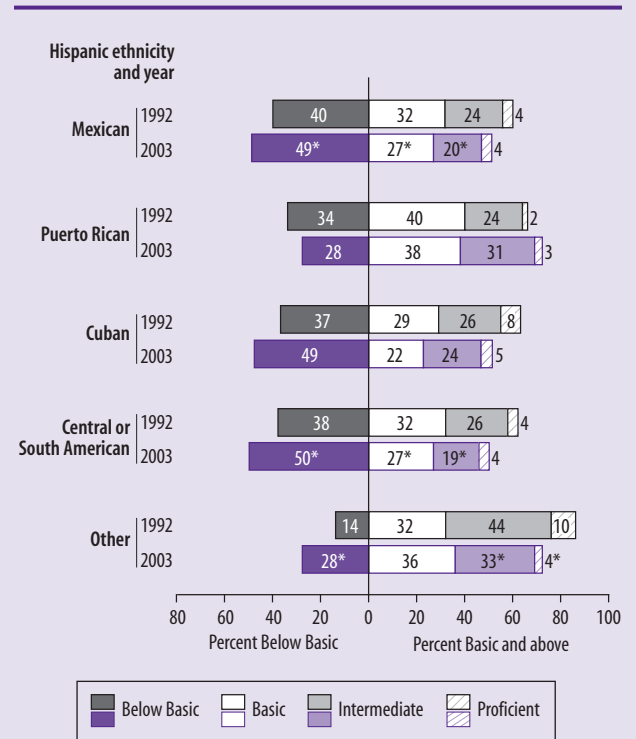
NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. All adults of Hispanic origin are classified as Hispanic, regardless of race.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

The distribution of adults across the four performance levels differed by type of Hispanic ethnicity (figures 2-8a, 2-8b, and 2-8c). In 2003, some 49 to 50 percent of Hispanic adults of Mexican, Cuban, and Central or South American origin had *Below Basic* prose literacy, while 28 percent of Hispanic adults of Puerto Rican origin had *Below Basic* prose literacy.

Between 1992 and 2003, there was an increase in the percentage of Hispanic adults of Mexican, Central or South American, and other origin with *Below Basic* prose literacy. The percentage of Hispanic adults of Mexican and Central or South American origin with *Below Basic* document literacy also increased. For Hispanic adults of Puerto Rican origin, the percentage with *Below Basic* document and quantitative literacy decreased between 1992 and 2003, but there was no significant change in the percentage of this group with *Below Basic* prose literacy.

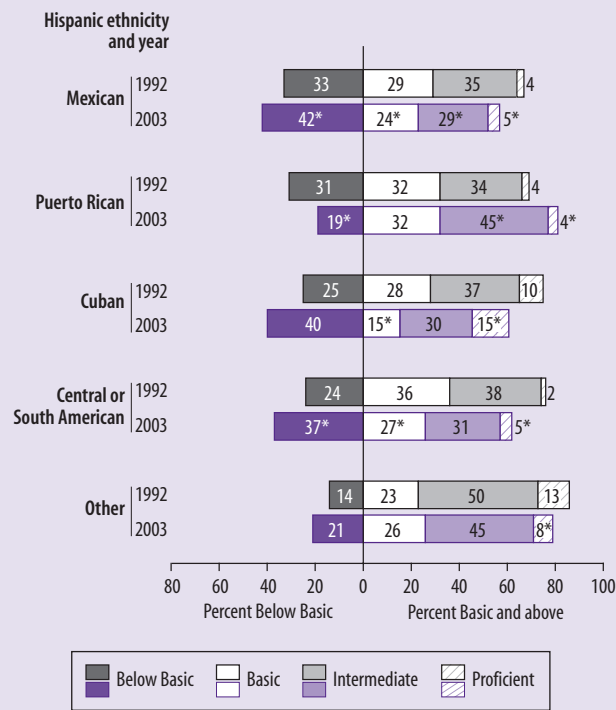
Figure 2-8a. Percentage of adults in each prose literacy level, by Hispanic ethnicity: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. All adults of Hispanic origin are classified as Hispanic, regardless of race. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

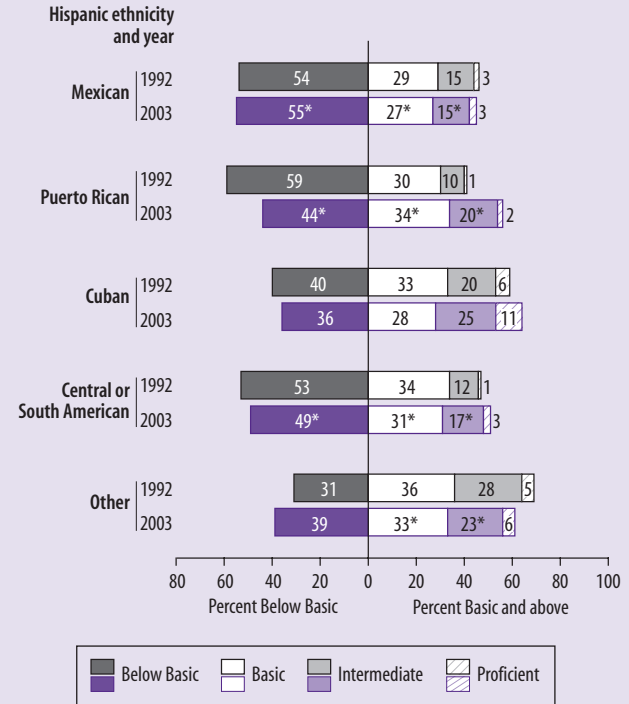
Figure 2-8b. Percentage of adults in each document literacy level, by Hispanic ethnicity: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. All adults of Hispanic origin are classified as Hispanic, regardless of race. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-8c. Percentage of adults in each quantitative literacy level, by Hispanic ethnicity: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. All adults of Hispanic origin are classified as Hispanic, regardless of race. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Language Background

The analyses in this section examine the English literacy of adults in relationship to two aspects of their language background: the language or languages adults spoke before starting school and the age at which adults learned to speak English.

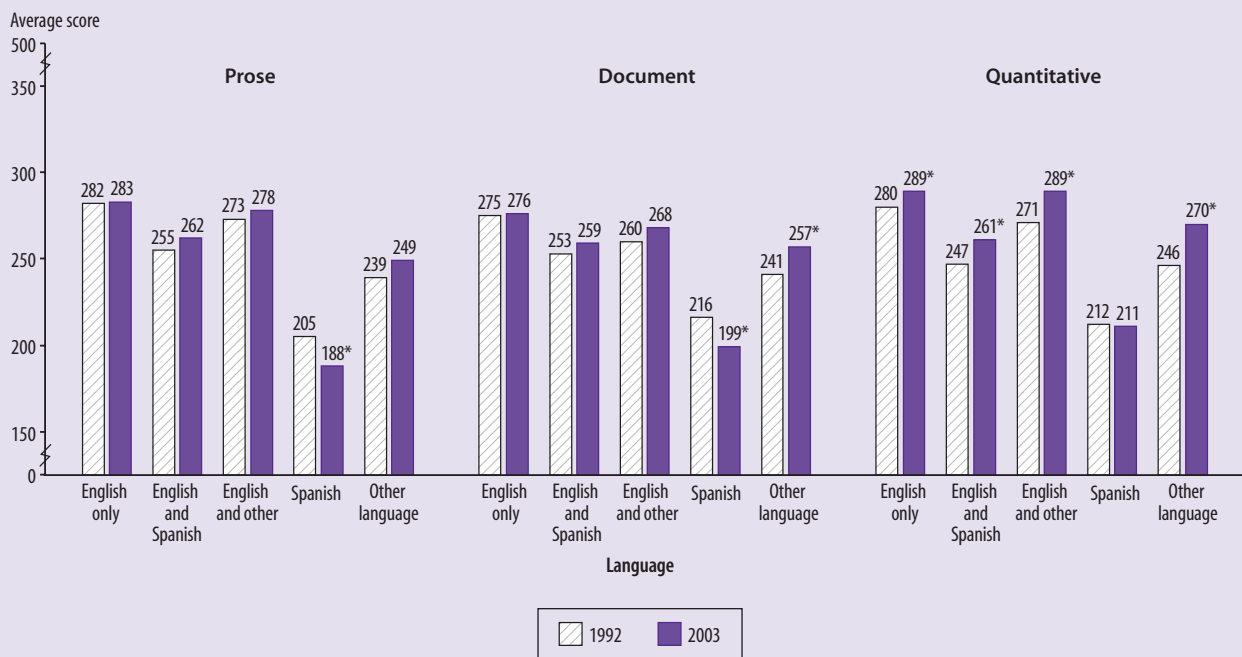
Language Spoken Before Starting School

In 2003, adults who spoke only English before starting school had higher average document literacy than other adults (figure 2-9). Adults who spoke only English before starting school also had higher average prose and quantitative literacy than adults who spoke Spanish but no English or who spoke English and Spanish before starting school.

Between 1992 and 2003, the average quantitative literacy of adults who spoke only English or English plus another language before starting school increased, but there was no significant change in their prose or document literacy. The average literacy score of adults who spoke Spanish but no English before starting school declined 17 points on the prose and document scales.

In 2003, a higher percentage of adults who spoke Spanish but no English before starting school than adults who spoke English only, English and Spanish, English and another language, or another language before starting school had *Below Basic* prose, document, and quantitative literacy (figures 2-10a, 2-10b, and 2-10c). Sixty-two percent of adults who spoke only Spanish before starting school had *Below Basic*

Figure 2-9. Average prose, document, and quantitative literacy scores of adults, by language spoken before starting school: 1992 and 2003



*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages.

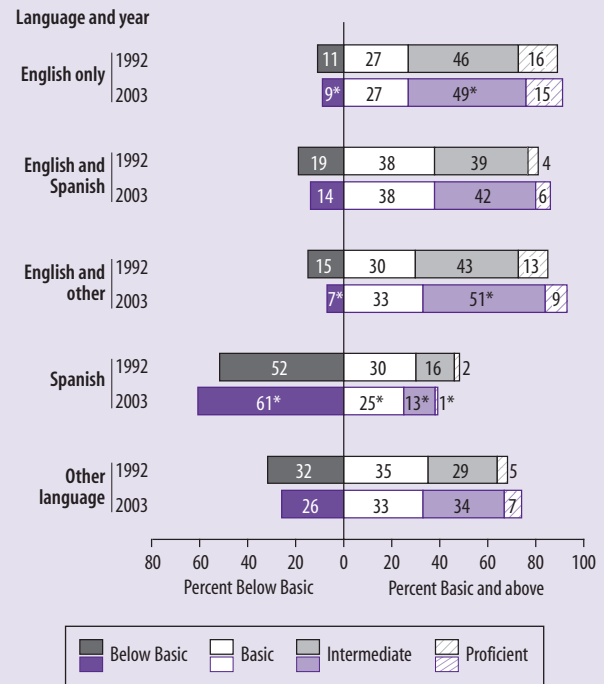
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

prose and quantitative literacy in 2003, and 49 percent of these adults had *Below Basic* document literacy.

A lower percentage of adults who spoke English only or English combined with a language other than Spanish before starting school had *Below Basic* prose and document literacy in 2003 than in 1992 (figures 2-10a and 2-10b). In addition, a lower percentage of adults who spoke English only or English combined with another language (Spanish or other) before starting school had *Below Basic* quantitative literacy in 2003 than in 1992 (figure 2-10c). Among adults who spoke Spanish but no English before starting school, the percentage with *Below Basic* prose and document literacy increased between 1992 and 2003, but there was no significant change in the percentage with *Below Basic* quantitative literacy.

In 2003, among adults who spoke Spanish but no English before starting school, 61 percent had *Below Basic* prose literacy while 49 percent had *Below Basic* document literacy. Among adults who spoke English only or English combined with another language before starting school, the percentage with *Below Basic* prose literacy was not statistically significant from the percentage who had *Below Basic* document literacy.

Figure 2-10a. Percentage of adults in each prose literacy level, by language spoken before starting school: 1992 and 2003

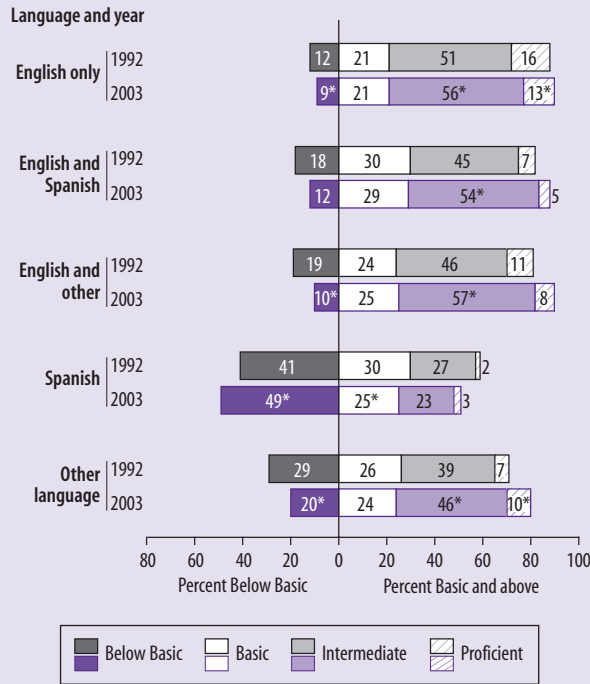


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-10b. Percentage of adults in each document literacy level, by language spoken before starting school: 1992 and 2003

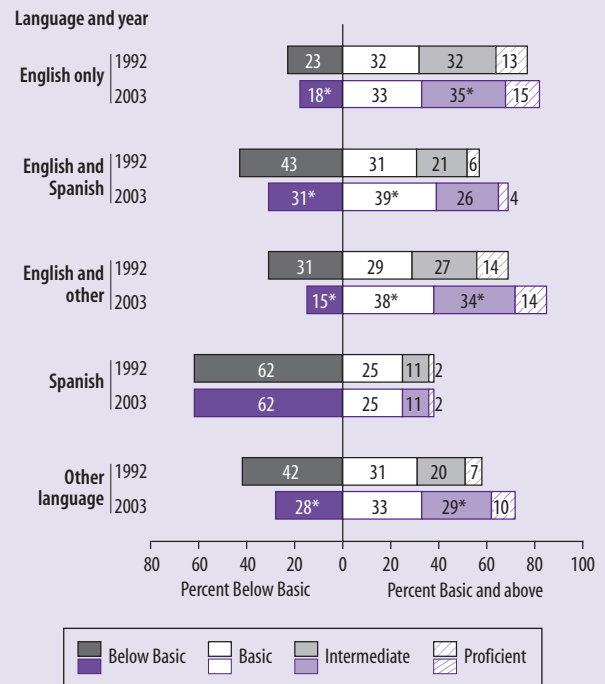


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-10c. Percentage of adults in each quantitative literacy level, by language spoken before starting school: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages.

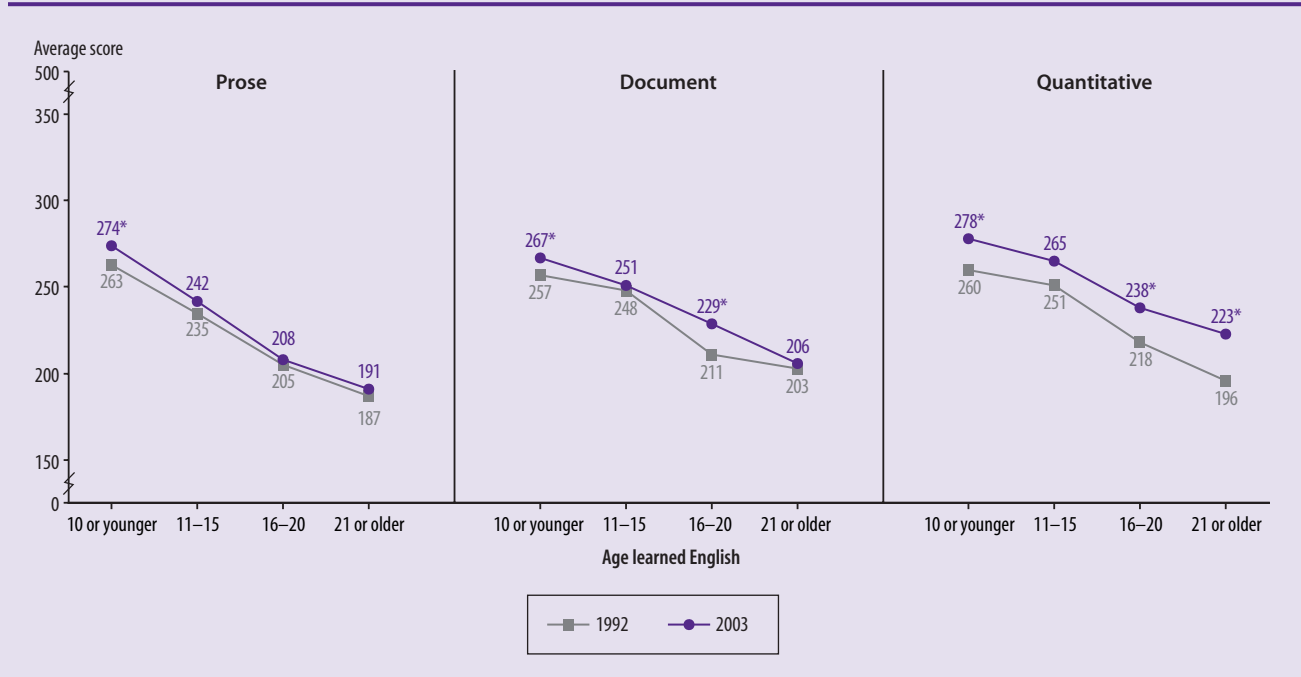
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Age Learned English

In 2003, among adults who spoke a language other than English before starting school, average prose and document literacy decreased as the age at which adults learned English increased (figure 2-11). Adults

who learned English at age 10 or younger or between the ages of 11 and 15 also had higher average quantitative literacy than adults who learned English at a later age.

Figure 2-11. Average prose, document, and quantitative literacy scores of adults who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003



*Significantly different from 1992.

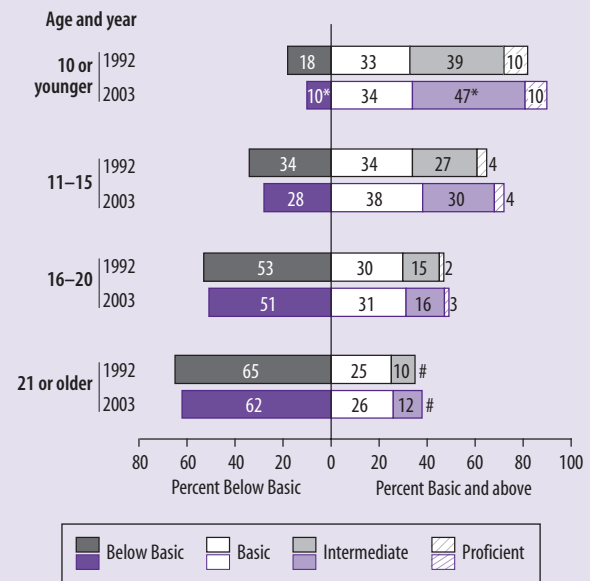
NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

A lower percentage of adults who learned English at age 10 or younger had *Below Basic* prose, document, or quantitative literacy in 2003 than in 1992 (figures 2-12a, 2-12b, and 2-12c). Among adults who learned English between the ages of 16 and 20, the percentage with *Below Basic* document and quantitative literacy decreased by 11 percentage points between 1992 and 2003. Among adults who learned English at age 21 or older, the percentage with *Below Basic* quantitative literacy decreased by 13 percentage points between 1992 and 2003.

In 2003, a higher percentage of adults who learned English at ages 16 to 20 or age 21 or older had *Below Basic* prose literacy than *Below Basic* document literacy (figures 2-12a and 2-12b).

Figure 2-12a. Percentage of adults in each prose literacy level who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003



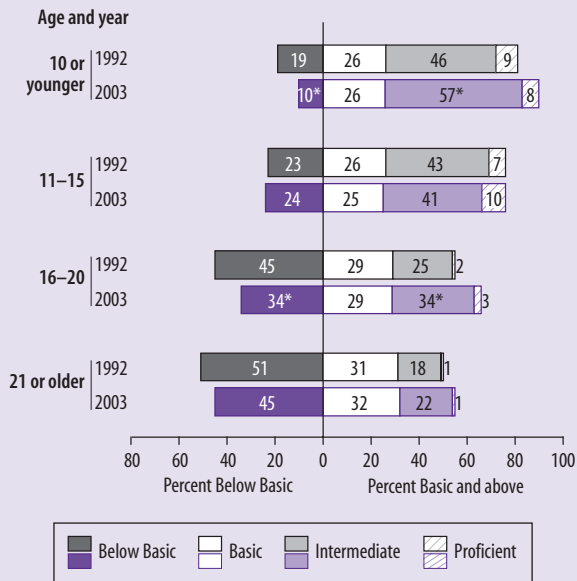
Rounds to zero.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-12b. Percentage of adults in each document literacy level who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003

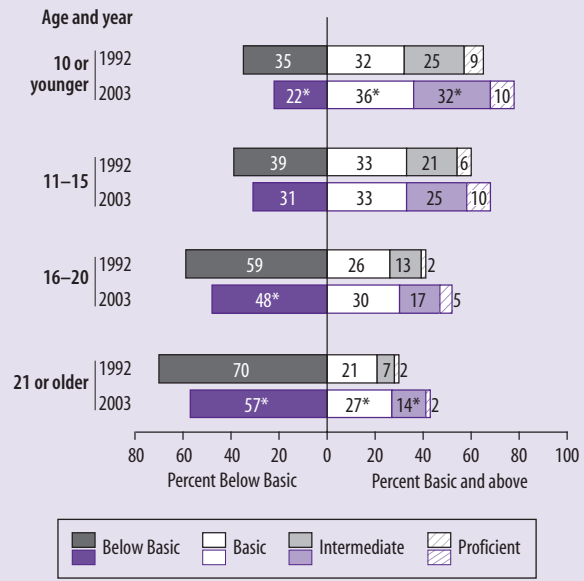


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-12c. Percentage of adults in each quantitative literacy level who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

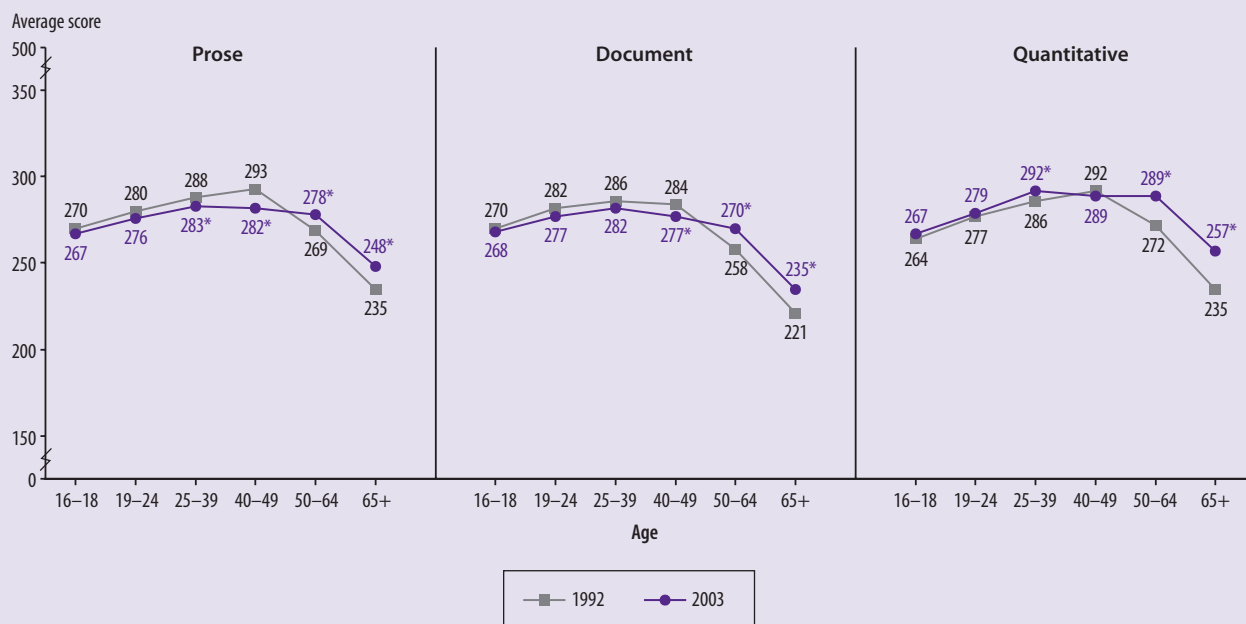
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Age

In 2003, among all age groups, adults ages 65 and older had the lowest average prose, document, and quantitative literacy (figure 2-13). Between 1992 and 2003, however, the average literacy of adults ages 65 and older increased on all three scales. Between 1992 and 2003, there was also an increase in the prose,

document, and quantitative literacy of adults between the ages of 50 and 64. There was a decline in the average prose literacy of adults between the ages of 25 and 39 and between 40 and 49. The average document literacy of adults between the ages of 40 and 49 declined, and the average quantitative literacy of adults between the ages of 25 and 39 increased.

Figure 2-13. Average prose, document, and quantitative literacy scores of adults, by age: 1992 and 2003



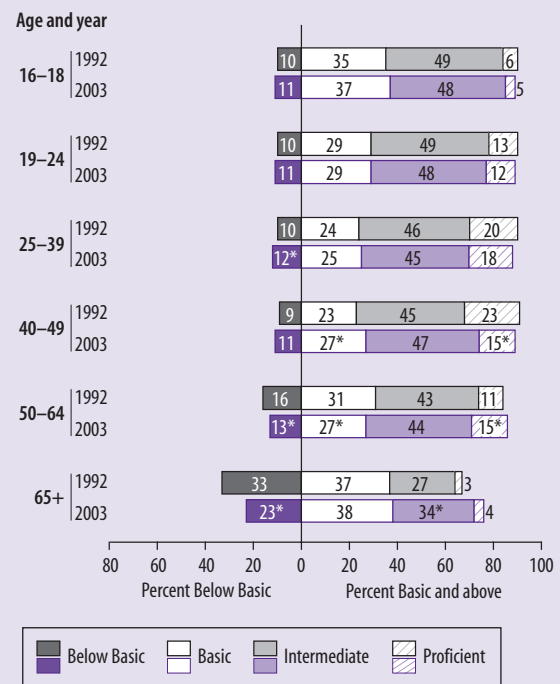
*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. Age was calculated on the basis of birth date information provided by respondents, and ages were grouped according to key life stages as described in appendix B.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

In 2003, adults ages 65 and older were more likely to have *Below Basic* prose, document, and quantitative literacy than adults in any of the younger age groups (figures 2-14a, 2-14b, and 2-14c). For adults ages 50 to 64 or ages 65 and older, the percentage with *Below Basic* prose, document, and quantitative literacy decreased between 1992 and 2003. Among adults ages 50 to 64, the percentage with *Proficient* prose, document, and quantitative literacy increased between 1992 and 2003, but there was no statistically significant change in the percentage of adults ages 65 and older with *Proficient* literacy on any of the scales.

Figure 2-14a. Percentage of adults in each prose literacy level, by age: 1992 and 2003

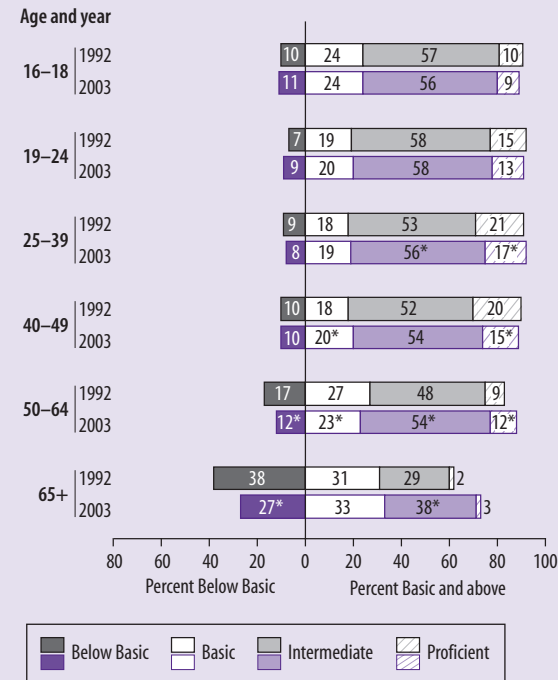


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. Age was calculated on the basis of birth date information provided by respondents, and ages were grouped according to key life stages as described in appendix B.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-14b. Percentage of adults in each document literacy level, by age: 1992 and 2003

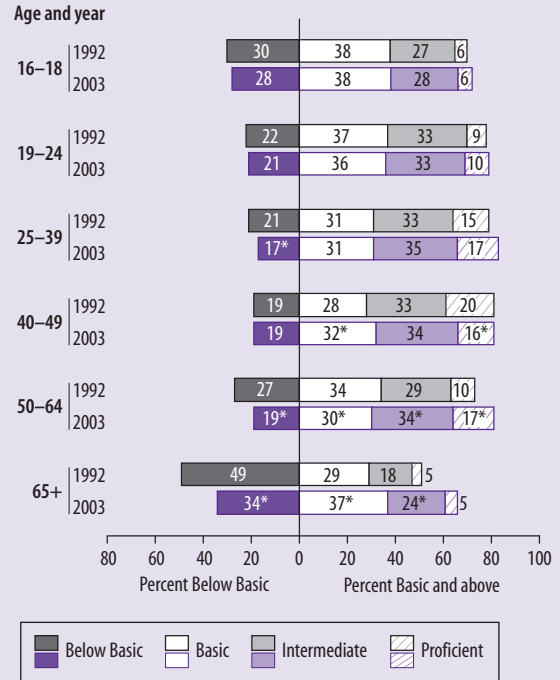


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. Age was calculated on the basis of birth date information provided by respondents, and ages were grouped according to key life stages as described in appendix B.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 2-14c. Percentage of adults in each quantitative literacy level, by age: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. Age was calculated on the basis of birth date information provided by respondents, and ages were grouped according to key life stages as described in appendix B.

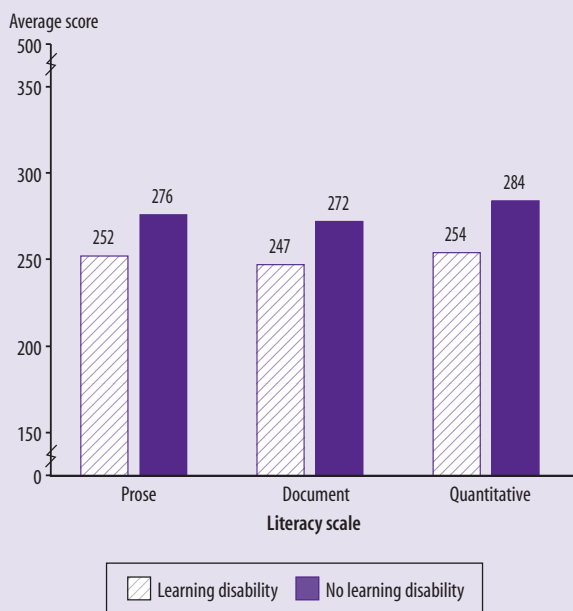
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Learning Disabilities

In 2003,⁴ 6 percent of adults reported they had been diagnosed or identified as having a learning disability (data not shown). Adults who had a learning disability had lower average prose, document, and quantitative literacy than adults who did not have a learning disability (figure 2-15). Among adults who had a learning disability, 24 percent had *Below Basic* prose and document literacy and 38 percent had *Below Basic* quantitative literacy (figure 2-16). In compar-

⁴In 2003, adults were asked if they had ever been diagnosed or identified as having a learning disability. In 1992, adults were asked if they currently had a learning disability. The change in the question wording was made to try to eliminate responses that included self-diagnosed learning disabilities. Because of the change in wording, results for adults with learning disabilities cannot be compared between 1992 and 2003.

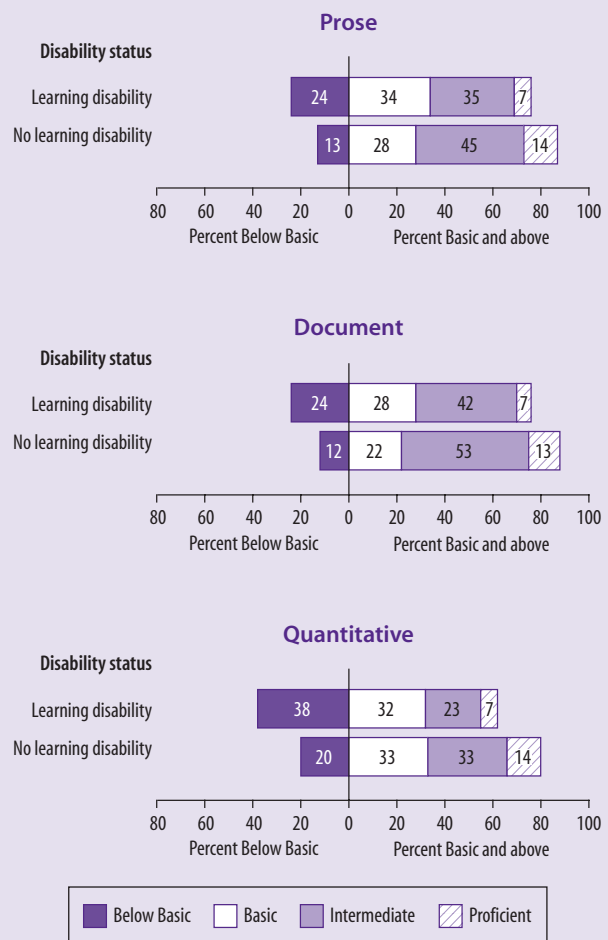
Figure 2-15. Average prose, document, and quantitative literacy scores of adults, by learning disability status: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

son, among adults who did not have a learning disability, 13 percent had *Below Basic* prose literacy, 12 percent had *Below Basic* document literacy, and 20 percent had *Below Basic* quantitative literacy. There were also differences at the upper end of the scales: 7 percent of adults who had a learning disability had *Proficient* literacy on all three scales, compared with 13 to 14 percent of adults who did not have a learning disability.

Figure 2-16. Percentage of adults in each prose, document, and quantitative literacy level, by learning disability status: 2003



Note: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

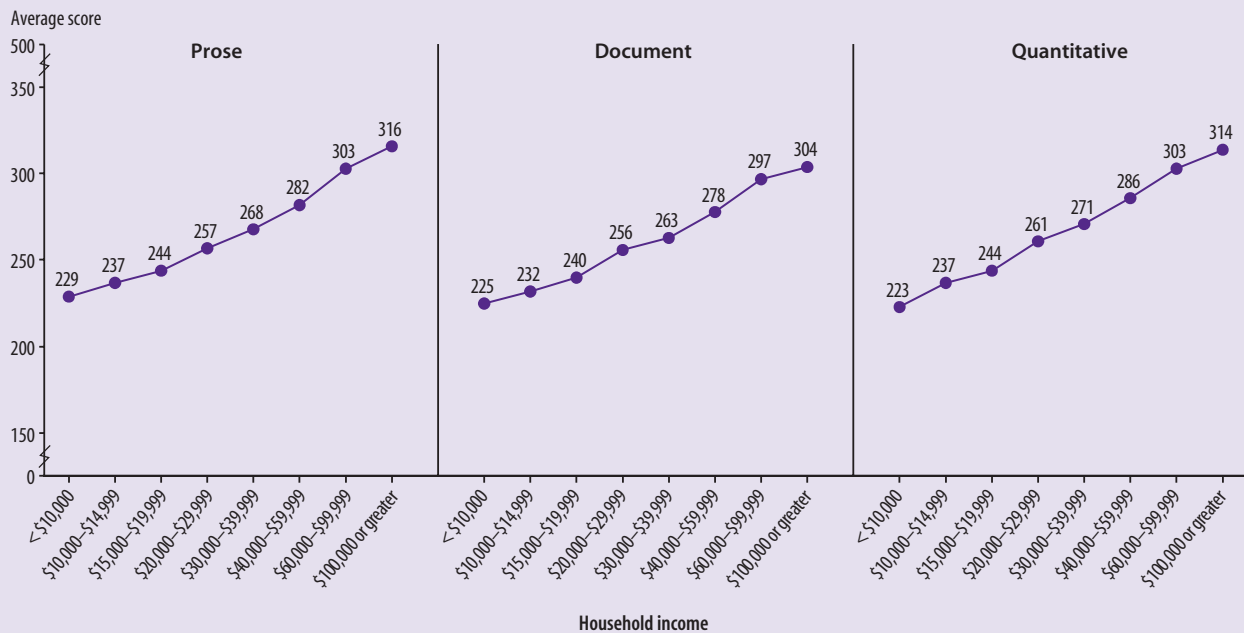
Household Income

Adults' household income was divided into eight categories: less than \$10,000, \$10,000–\$14,999, \$15,000–\$19,999, \$20,000–\$29,999, \$30,000–\$39,999, \$40,000–\$59,999, \$60,000–\$99,999, and \$100,000 or greater. Average prose, document, and quantitative literacy was higher for adults in each increasing level of household income, with two exceptions. On the prose and quantitative scales, the differences in average literacy between adults who lived in households with incomes of \$10,000 to \$14,999 and adults who lived in households with incomes of \$15,000 to \$19,999 were not statistically significant. On the document scale, the difference in average literacy between adults who lived in

households with incomes below \$10,000 and adults who lived in households with incomes between \$10,000 and \$14,999 was not statistically significant (figure 2-17).

With each higher level of prose, document, and quantitative literacy—from *Below Basic* through *Proficient*—the percentage of adults with household incomes below \$10,000 decreased (table 2-3). For example, 26 percent of adults with *Below Basic* prose literacy lived in households with incomes below \$10,000 compared with 14 percent of adults with *Basic* prose literacy, 5 percent of adults with *Intermediate* prose literacy, and 2 percent of adults with *Proficient* prose literacy.

Figure 2-17. Average prose, document, and quantitative literacy scores of adults, by household income: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

At the top of the income scale, the percentage of adults living in households with incomes above \$100,000 was higher at each higher level of literacy (table 2-2). For example, 2 percent of adults with *Below Basic* prose literacy lived in households with

incomes of \$100,000 or more, while 6 percent of adults with *Basic* prose literacy, 16 percent of adults with *Intermediate* prose literacy, and 30 percent of adults with *Proficient* prose literacy lived in households with incomes of \$100,000 or more.

Table 2-3. Percentage of adults in each household income category, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Less than \$10,000	\$10,000–\$14,999	\$15,000–\$19,999	\$20,000–\$29,999	\$30,000–\$39,999	\$40,000–\$59,999	\$60,000–\$99,999	\$100,000 or greater
Prose								
Below Basic	26	16	12	16	12	12	5	2
Basic	14	10	8	15	13	19	15	6
Intermediate	5	5	4	11	11	21	27	16
Proficient	2	1	2	5	7	18	35	30
Document								
Below Basic	27	17	11	16	11	11	5	3
Basic	13	12	8	15	14	18	13	6
Intermediate	6	5	4	11	11	21	26	16
Proficient	3	1	2	6	6	19	36	27
Quantitative								
Below Basic	26	16	11	16	11	12	7	2
Basic	9	8	6	14	14	21	19	9
Intermediate	4	4	3	10	11	22	28	18
Proficient	2	2	2	5	6	18	37	29

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Summary

This chapter examined how the literacy levels for the total adult population of the United States, as well as for adults from different demographic groups, changed between 1992 and 2003, and also how literacy levels varied among different demographic groups in 2003.

Total Population

There were no statistically significant changes in the average prose and document literacy of the adult population of the United States between 1992 and 2003. Average quantitative literacy increased between 1992 and 2003.

Between 1992 and 2003, the percentages of adults with *Below Basic* document and quantitative literacy decreased, and the percentages of adults with *Proficient* prose and document literacy also decreased.

Gender

Women had higher average prose and document literacy than men in 2003. This was a change from 1992 when men had higher average document literacy than women and the differences between men and women in prose literacy were not statistically significant. Men had higher average quantitative literacy than women in both 1992 and 2003, but the gap between men and women narrowed between the two years.

Despite the overall gain made by women in quantitative literacy, a higher percentage of men than women had *Proficient* quantitative literacy in 2003. A higher percentage of men than women also had *Below Basic* prose and document literacy.

Race and Ethnicity

In 2003, White and Asian/Pacific Islander adults had higher average prose, document, and quantitative lit-

eracy than Black and Hispanic adults. Black adults had higher average prose and document literacy than Hispanic adults.

Although their average literacy levels remained lower than those of White and Asian/Pacific Islander adults, Black adults had higher average prose, document, and quantitative literacy in 2003 than in 1992. The average prose literacy of Asian/Pacific Islander adults increased as well. Among Hispanic adults, however, average prose and document literacy declined between 1992 and 2003, while average quantitative literacy did not change statistically. Quantitative literacy increased among White adults, but there were no significant changes among White adults in prose and document literacy.

In 2003, a higher percentage of Hispanic adults had *Below Basic* prose literacy than *Below Basic* document literacy. There were no statistically significant differences among the other racial/ethnic groups in the percentages of adults with *Below Basic* prose and document literacy.

Language Background

Between 1992 and 2003, the average quantitative literacy of adults who spoke English only or English plus another language before starting school increased, but there was no significant change in their prose or document literacy. The average literacy of adults who spoke Spanish but no English before starting school declined on the prose and document scales.

A higher percentage of adults who spoke Spanish but no English before starting school than adults who spoke English, English and Spanish, English and another language, or another language before starting school had *Below Basic* prose, document, and quantitative literacy. Among adults who spoke only Spanish before starting school, 61 percent had *Below Basic* prose literacy, 49 percent had *Below Basic* document

literacy, and 62 percent had *Below Basic* quantitative literacy.

In 2003, among adults who spoke a language other than or in addition to English before starting school, average prose and document literacy increased as the age at which the adults learned to speak English decreased.

Age

Among all the age groups in 2003, adults ages 65 and older had the lowest average prose, document, and quantitative literacy. However, the average prose, document, and quantitative literacy of adults in that age group, as well as adults in the next oldest age group (50 to 64), increased between 1992 and 2003.

Learning Disabilities

In 2003, adults who had been diagnosed or identified as having a learning disability had lower average prose, document, and quantitative literacy than adults who did not have a learning disability. Among adults with a learning disability, 24 to 38 percent had *Below Basic* literacy on all three scales, compared with 12 to 20 percent of adults who did not have a learning disability.

Household Income

With each higher level of prose, document, and quantitative literacy—from *Below Basic* through *Proficient*—the percentage of adults with household incomes below \$10,000 decreased and the percentage of adults with household incomes of \$100,000 or greater increased.

Education and Literacy

The analyses in this chapter examine the relationship between education and literacy. The first section of the chapter focuses on adults' highest level of educational attainment and compares the literacy levels of adults with different levels of educational attainment in 1992 and 2003. Results are presented for all adults and separately by race/ethnicity. The analyses in the chapter also examine whether adults who completed high school or college at traditional ages (19 or younger for high school and 23 or younger for college) had literacy that was different from adults who completed their schooling at a later age. The chapter concludes with a discussion of the relationship between other types of education—English as a Second Language (ESL) instruction and information technology certification—and literacy.

Highest Level of Educational Attainment

Highest Level of Educational Attainment by Race/Ethnicity

Age at School Completion

Other Types of Adult Education

Summary

Highest Level of Educational Attainment

Educational attainment increased between 1992 and 2003, with a higher percentage of adults completing an associate's or bachelor's degree and fewer adults ending their education before completing high school (table 3-1). Between 1992 and 2003, the percentage of adults who did not have a high school diploma but were not still in school declined by 6 percentage

points, from 21 percent to 15 percent of the population. At the same time, the percentage of adults with a postsecondary degree increased: 11 percent of adults had an associate's degree in 1992 compared with 12 percent in 2003, 10 percent had a bachelor's degree in 1992 compared with 12 percent in 2003, and 9 percent had taken graduate classes or had a graduate degree in 1992 compared with 11 percent in 2003.

Excluding people who were still in high school, adults with higher levels of education had higher levels of prose, document, and quantitative literacy (table 3-2). Literacy scores rose with successive levels of educational attainment; they were lowest across the three scales for adults who did not complete high school and highest for adults with graduate study or a graduate degree.

Although there were no measurable changes in literacy for the total population between 1992 and 2003, there were statistically significant declines on the prose and document scales for many levels of highest educational attainment. Average prose literacy scores decreased significantly for all levels of highest educational attainment, with the exception of adults who were still in high school or who had completed a

Table 3-1. Percentage of adults, by highest educational attainment: 1992 and 2003

Educational attainment	1992	2003
Still in high school	4	3*
Less than/some high school	21	15*
GED/high school equivalency	4	5*
High school graduate	27	26*
Vocational/trade/business school	5	6
Some college	9	11*
Associate's/2-year degree	11	12*
Bachelor's degree	10	12*
Graduate studies/degree	9	11*

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table 3-2. Average prose, document, and quantitative literacy scores of adults, by highest educational attainment: 1992 and 2003

Educational attainment	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
Still in high school	268	262	270	265	263	261
Less than/some high school	216	207*	211	208	209	211
GED/high school equivalency	265	260	259	257	265	265
High school graduate	268	262*	261	258	267	269
Vocational/trade/business school	278	268*	273	267	280	279
Some college	292	287*	288	280*	295	294
Associate's/2-year degree	306	298*	301	291*	305	305
Bachelor's degree	325	314*	317	303*	324	323
Graduate studies/degree	340	327*	328	311*	336	332

*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

General Educational Development (GED) certificate. Declines in average document literacy scores occurred among adults at the postsecondary level of education.

The fact that average prose literacy decreased or remained the same for all levels of highest educational attainment raises an interesting question. How could prose literacy scores decrease at every level of education beyond high school without a decrease in the overall score? This pattern is called Simpson's Paradox (Simpson 1951). The answer is that the relative size of the groups changed. From 1992 to 2003, the percentage of adults with postsecondary education increased and the percentage of adults who did not complete high school decreased. The increase in the percentage of adults with postsecondary education, who, on average, had higher prose scores than adults who did not complete high school, offsets the fact that average prose literacy scores declined at every level of educational attainment beyond high school.

The declining literacy of adults with higher educational attainment was reflected in changes in the distribution of adults in the prose and document literacy levels between 1992 and 2003 (figures 3-1a and 3-1b). Changes between 1992 and 2003 in the distribution of adults among literacy levels are discussed for three groups of adults: adults without a high school diploma or GED certificate, adults whose highest level of education was a high school diploma or GED credential, and adults with postsecondary education.

Adults Without a High School Diploma

In 2003, adults who had not completed high school and were not currently enrolled in school were more likely than adults with higher levels of education to have *Below Basic* prose, document, and quantitative literacy (figures 3-1a, 3-1b, and 3-1c). On the prose scale, half of adults without a high school diploma or

GED credential had *Below Basic* literacy, compared with 10 percent of adults with a GED or a high school equivalency credential; 13 percent of high school graduates; and 10 percent of adults who had taken classes in a vocational, trade, or business school.

Adults Whose Highest Level of Education Was a High School Diploma or GED Credential

Secondary school students can earn either a traditional high school diploma or a General Educational Development (GED) credential. A GED credential can be obtained by passing a test that measures high school-level academic skills. The GED provides an alternative educational path for adults who have dropped out of high school before completing all the requirements for graduation.

In 2003, there were no statistically significant differences between adults who ended their education with a traditional secondary school diploma and those who ended their education with a GED in their average prose, document, or quantitative literacy (table 3-2). Also, there were no statistically significant differences in the distribution of adults across the prose, document, and quantitative levels by their type of high school diploma or GED credential (figures 3-1a, 3-1b, and 3-1c).

Adults With Postsecondary Education

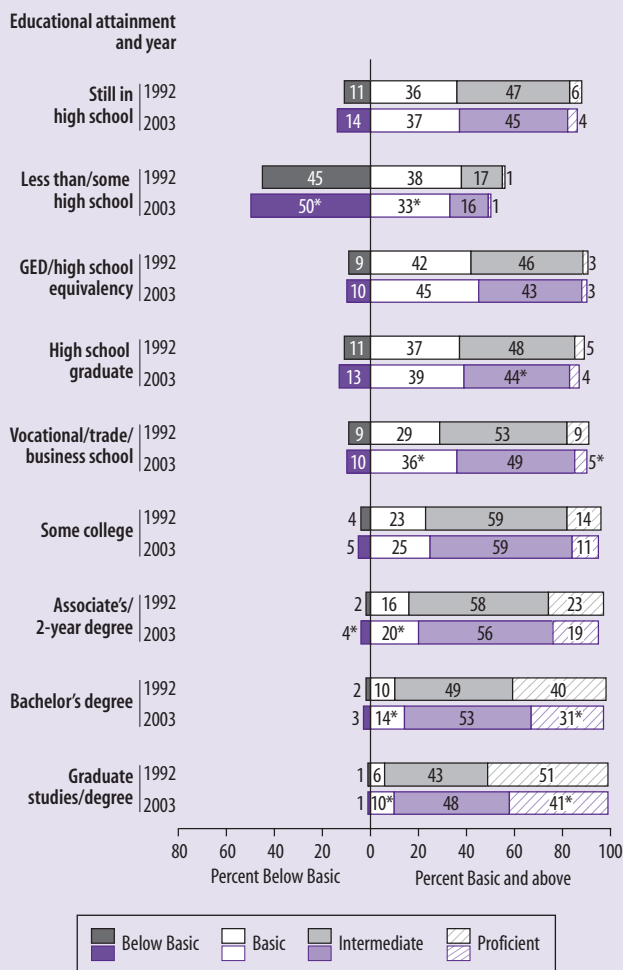
Postsecondary education in the United States takes a number of forms, including 2-year degree programs and community colleges; certificates or degrees from vocational, trade, or business schools; 4-year colleges and universities; and graduate studies after completion of a 4-year degree. In 2003, the average literacy of adults increased with each level of postsecondary education on all three scales (table 3-2).

On the prose scale, 41 percent of adults who had either received a graduate degree or taken graduate

courses and 31 percent of adults who graduated from a 4-year college or university had *Proficient* literacy, compared with 19 percent of adults who ended their education with an associate's or 2-year degree; 11 percent of adults who had completed some college; and 5 percent of adults who took vocational, trade, or business classes after high school but did not attend college (figure 3-1a). On the

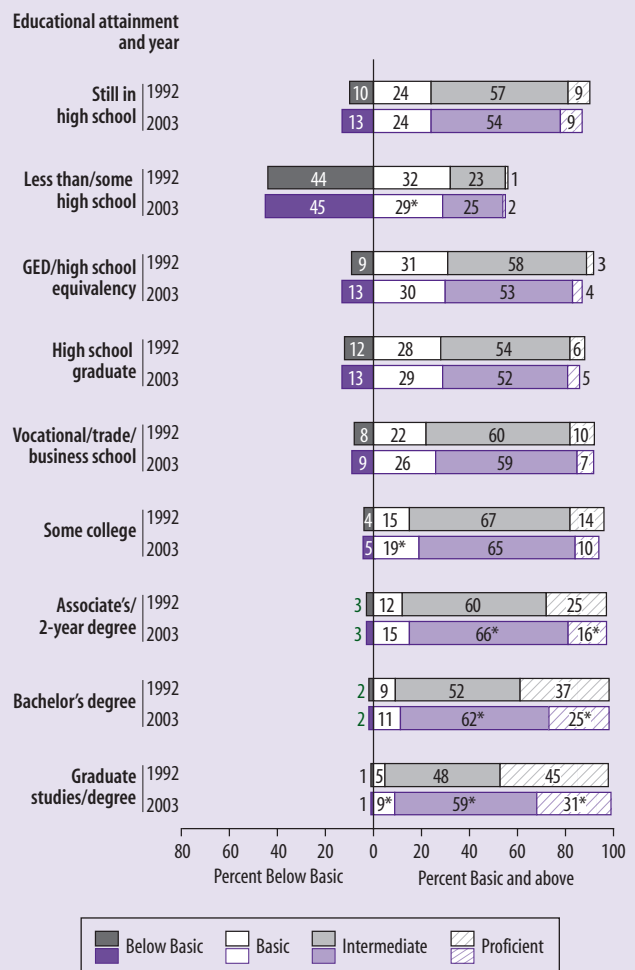
document scale, 31 percent of adults who had either received a graduate degree or taken graduate courses and 25 percent of adults who graduated from a 4-year college or university had *Proficient* literacy, compared with 16 percent of adults who ended their education with an associate's or 2-year degree; 10 percent of adults who had completed some college; and 7 percent of adults who took vocational,

Figure 3-1a. Percentage of adults in each prose literacy level, by highest educational attainment: 1992 and 2003



*Significantly different from 1992.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 3-1b. Percentage of adults in each document literacy level, by highest educational attainment: 1992 and 2003



*Significantly different from 1992.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

trade, or business classes after high school but did not attend college (figure 3-1b).

Although literacy in 2003 increased with each increasing level of postsecondary education, between 1992 and 2003 there were declines in literacy for adults with the same level of highest educational attainment. The percentage of adults who ended their education with a bachelor's degree with

Proficient prose literacy decreased from 40 percent in 1992 to 31 percent in 2003 (figure 3-1a). For adults who took graduate classes or completed a graduate degree, the percentage with *Proficient* prose literacy fell 10 percentage points—from 51 percent to 41 percent—between 1992 and 2003.

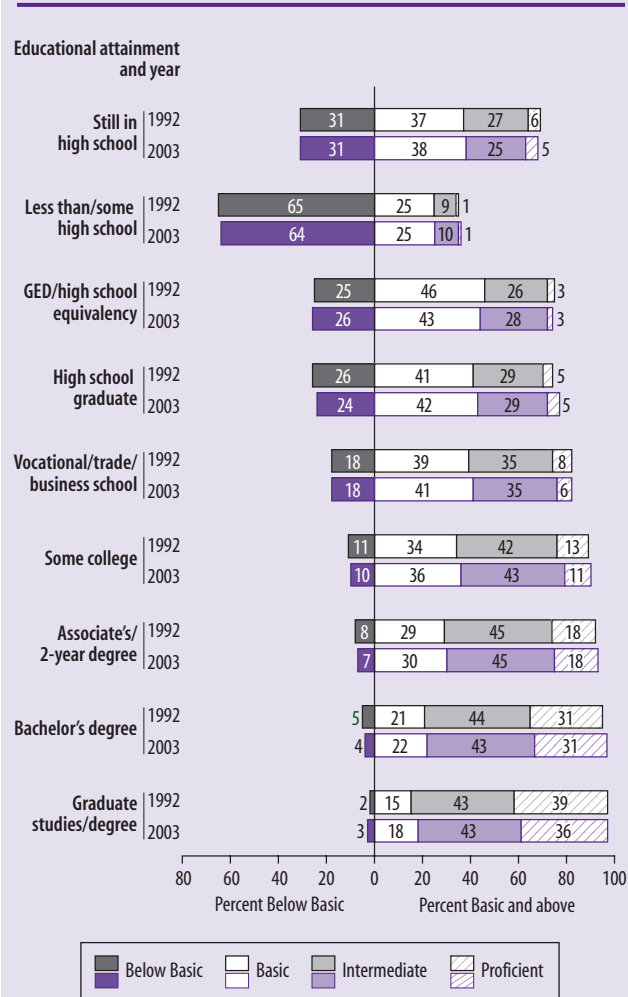
Highest Level of Educational Attainment by Race/Ethnicity

White adults at all levels of educational attainment had higher average prose, document, and quantitative literacy than Black and Hispanic adults at the corresponding levels of educational attainment (table 3-3). White adults with 4-year college degrees or higher had higher average prose, document, and quantitative literacy than Asian adults with the same level of highest educational attainment. White adults who ended their education with a regular high school diploma, a GED, or some vocational classes taken after high school also had higher average prose, document, and quantitative literacy than Asian adults at the corresponding levels of educational attainment.

Highest Level of Educational Attainment and Literacy Among White Adults

Between 1992 and 2003, average prose and document literacy declined for White adults with some college or higher education (table 3-3). Average prose literacy for White adults with a high school diploma, a GED, or some vocational classes taken after high school also declined between 1992 and 2003. Average document and quantitative literacy increased between 1992 and 2003 for White adults whose highest educational level was less than high school or some high school. There were no other significant changes in literacy among White adults at any other level of educational attainment.

Figure 3-1c. Percentage of adults in each quantitative literacy level, by highest educational attainment: 1992 and 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Highest Level of Educational Attainment and Literacy Among Black Adults

Between 1992 and 2003, average prose and quantitative literacy increased for Black adults with a high school diploma, a GED, or some vocational classes taken after high school (table 3-3). Average quantitative literacy also increased for Black adults whose highest educational level was less than high school or some high school. There were no other significant changes in literacy among Black adults at any other level of educational attainment.

Highest Level of Educational Attainment and Literacy Among Hispanic Adults

Between 1992 and 2003, average prose literacy decreased among all Hispanic adults except those

who were still in high school and those who had a college degree or higher (table 3-3). Average document literacy decreased among Hispanic adults who had completed some college or obtained an associate's degree or whose highest educational level was less than high school or some high school. There were no other significant changes in literacy among Hispanic adults at any other level of educational attainment.

Highest Level of Educational Attainment and Literacy Among Asian/Pacific Islander Adults

Between 1992 and 2003, there were no statistically significant differences on the prose, document, and quantitative literacy scales at any level of educational attainment among Asian/Pacific Islander adults (table 3-3).

Table 3-3. Average prose, document, and quantitative literacy scores of adults, by highest educational attainment and race/ethnicity: 1992 and 2003

Literacy scale and educational attainment	White		Black		Hispanic		Asian/Pacific Islander	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Still in high school	280	278	243	236	243	226	264	274
Less than high school/some high school	227	231	199	202	183	161*	184	212
High school graduate/GED/vocational classes	276	271*	236	241*	243	231*	239	230
Some college/associate's degree	306	300*	270	266	281	265*	279	284
College degree or higher	339	328*	288	280	294	283	282	292
Document								
Still in high school	283	279	242	241	241	223	261	279
Less than high school/some high school	220	229*	192	197	193	171*	200	207
High school graduate/GED/vocational classes	269	266	230	234	244	239	234	240
Some college/associate's degree	301	292*	261	259	280	265*	279	280
College degree or higher	328	313*	277	272	292	281	287	291
Quantitative								
Still in high school	279	279	225	227	233	218	254	270
Less than high school/some high school	224	235*	169	190*	178	177	191	205
High school graduate/GED/vocational classes	278	280	225	235*	242	245	245	243
Some college/associate's degree	308	309	261	262	278	275	281	291
College degree or higher	335	334	279	280	299	302	305	313

*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Age at School Completion

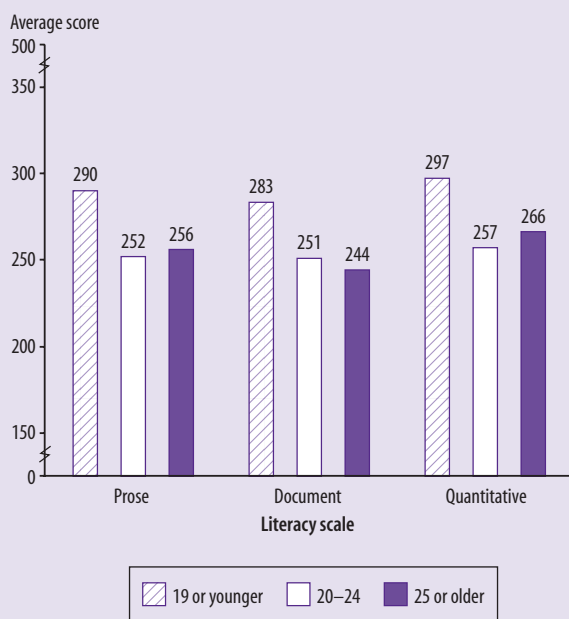
Adults who received their high school degree or college degree at an age that indicated they likely began school at the traditional age and continued straight through until graduation had higher levels of prose, document, and quantitative literacy than adults who received their degrees when they were older (figures 3-2 and 3-3).

Age at High School Completion

In the United States, students who begin kindergarten between the ages of 4 and 6, and continue through their schooling without a break, complete high school between the ages of 17 and 19, although

some students with disabilities may continue to be enrolled in school through age 21. Adults who received their high school diploma or GED credential at age 19 or younger had an average prose literacy score of 290, compared with an average prose literacy score of 252 for adults who received their high school diploma or GED credential between 20 and 24 years of age (figure 3-2). The average document literacy score of adults who received their high school diploma or GED credential by age 19 was 283; for adults who completed high school between the ages of 20 and 24, the average document literacy score was 251. On the quantitative scale, adults who received their high school diploma or GED credential at age 19 or younger had an average score of 297, and those who received their high school diploma or

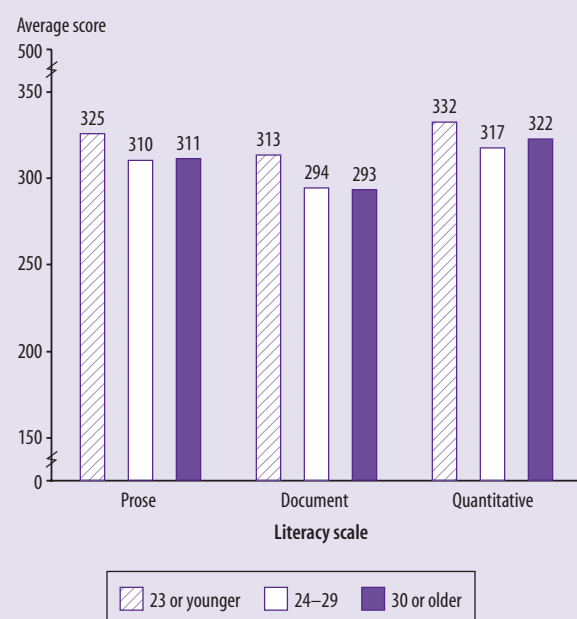
Figure 3-2. Average prose, document, and quantitative literacy scores of adults, by age obtained high school diploma or GED: 2003



NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 3-3. Average prose, document, and quantitative literacy scores of adults, by age obtained college degree: 2003



NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

GED credential between 20 and 24 years of age had an average score of 257.

Age at College Completion

Adults who obtained their college degree at age 23 or younger had higher average prose, document, and quantitative literacy than adults who completed their college degree at an older age (figure 3-3).

Other Types of Adult Education

Prose, document, and quantitative literacy also differed among adults who had participated in education activities other than or in addition to high school and college. Training offered by employers and labor unions is discussed in chapter 4. Participation in English as a Second Language classes and information technology (IT) certification are discussed here.⁵

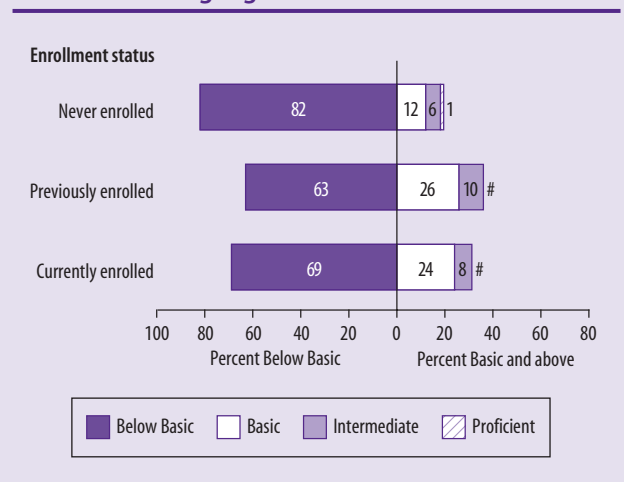
English as a Second Language instruction

English as a Second Language (ESL) instruction is often available to adults through school districts, colleges, community-based organizations, businesses, unions, and faith-based organizations (Senior Service America and the Center for Applied

Linguistics 2006). Thirty-nine percent of adults who learned English at the age of 16 years or older with *Below Basic* prose literacy and 63 percent with *Basic* prose literacy had attended or were currently enrolled in adult ESL classes (table 3-4).

Eighty-two percent of adults who learned English at 16 years of age or older who had never enrolled in an adult ESL class had *Below Basic* prose literacy, compared with 63 percent of adults who had attended such classes and 69 percent of adults who were currently enrolled (figure 3-4). Among adults who

Figure 3-4. Percentage of adults in each prose literacy level who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003



Rounds to zero.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table 3-4. Percentage of adults in the *Below Basic* and *Basic* prose literacy levels who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003

Prose literacy level	Currently enrolled	Took class less than 2 years ago	Took class 2-5 years ago	Took class more than 5 years ago	Never took class
Below Basic	4	9	9	17	61
Basic	5	13	11	34	36

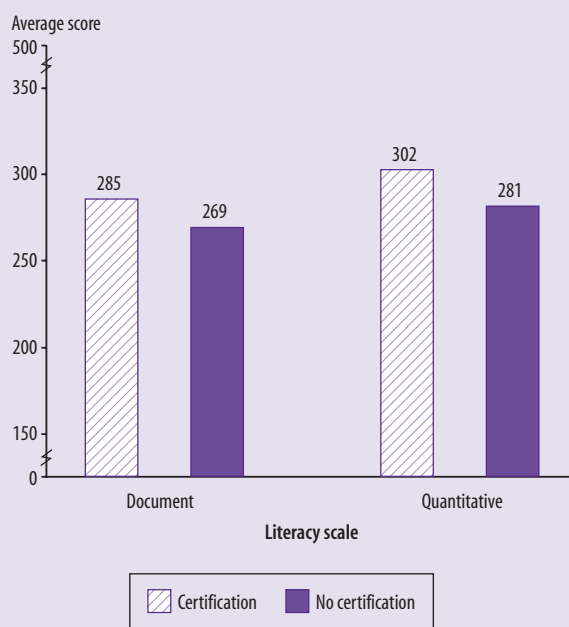
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

had previously enrolled in an adult ESL class or who were currently enrolled in an adult ESL class, 24 to 26 percent had *Basic* prose literacy.

Information Technology Certification

Information technology (IT) is a growing area of employment, and certification is becoming more commonly available (Bureau of Labor Statistics 2006). In the 2003 NAAL, adults were asked whether they had received any type of IT certification sponsored by hardware and software manufacturers or by industry and professional associations. Adults who had received IT certification had higher document and quantitative literacy scores than adults who had not received information technology certification (figure 3-5).

Figure 3-5. Average document and quantitative literacy scores of adults, by whether they had received information technology certification: 2003

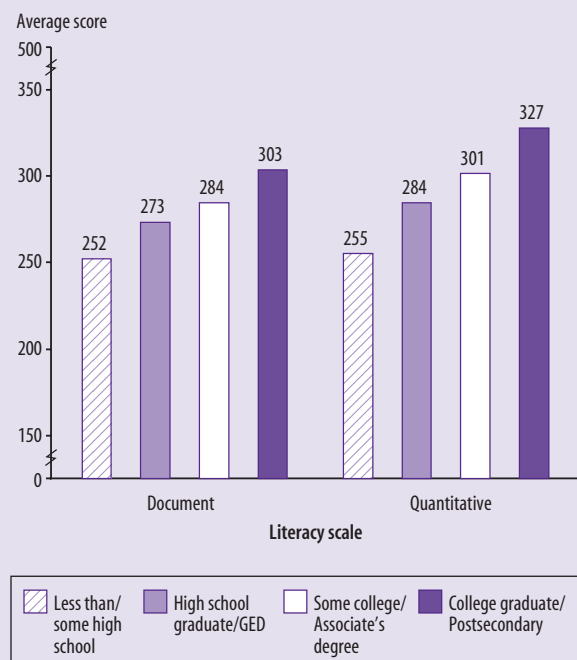


NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

The average document and quantitative literacy of adults with information technology certification was higher among adults with higher levels of other education (figure 3-6). Adults who had information technology certification but did not have either a regular high school diploma or a GED had an average document literacy score of 252, adults who had received information technology certification and a high school diploma had an average document literacy score of 273, adults who had received IT certification and attended some college or received an associate's degree had an average document literacy score of 284, and adults who had received information technology certification and a college degree had an average document literacy score of 303.

Figure 3-6. Average document and quantitative literacy scores of adults who had received information technology certification, by highest educational attainment: 2003



NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

The average document and quantitative literacy of adults who combined information technology certification with either a high school diploma or a GED was higher than for all adults with a high school diploma or a GED (figures 3-1b, 3-1c, and 3-6).

Summary

This chapter examined the relationship between education and literacy. The percentage of adults who had completed some college or higher levels of education increased between 1992 and 2003. In 2003, among adults who were not still in high school, average prose, document, and quantitative literacy increased with each increasing level of education. However, between 1992 and 2003, prose and document literacy for adults with some college or higher levels of education declined.

There were no statistically significant differences in average prose, document, and quantitative literacy between adults whose highest level of education was a regular high school diploma and adults whose highest level of education was a GED or a high school equivalency credential.

White adults had higher average prose literacy scores than Black and Hispanic adults for all levels of educational attainment. However, average prose and quantitative literacy increased between 1992 and 2003 for Black adults with a high school diploma, a

GED, or some vocational classes taken after high school. Average quantitative literacy increased between 1992 and 2003 for Black adults whose highest educational level was less than high school or some high school. Average prose literacy declined between 1992 and 2003 among all Hispanic adults except those who were still in high school or had a college degree or higher. Average document literacy decreased among Hispanic adults who had completed some college or obtained an associate's degree or whose highest educational level was less than high school or some high school.

High school graduates who obtained their diploma or GED at age 19 or younger had higher average prose, document, and quantitative literacy than adults who obtained their high school diploma or GED credential at older ages. College graduates who received their college degree at age 23 or younger had higher average prose, document, and quantitative literacy than adults who received college degrees at older ages.

Adults who had received information technology certification had higher average document and quantitative literacy scores than adults who had not received certification. The average document and quantitative literacy of adults with information technology certification was higher among adults with higher levels of other education.

Employment, Earnings, and Job Training

The analyses in this chapter examine the employment status, occupation, and earnings of adults with different levels of literacy. Individuals' perceptions of the extent that reading, mathematics, and computer skills limited their job opportunities are also investigated across literacy levels. Finally, literacy and public assistance participation, as well as length of time on public assistance, is examined.⁶ Data from the 1992 National Adult Literacy Survey and the 2003 National Assessment of Adult Literacy are compared, using a common scaled method, to examine differences in the literacy of adults within different employment status and occupational attainment groups.

All analyses in this chapter are based on the household sample only. Analyses by occupational group include only adults who were employed at some point during the 3 years prior to the assessment. Analyses of earnings include only adults who were employed full-time at the time of the assessment. Analyses of skills and job training include only adults who were not retired at the time of the assessment.

⁶ The relationship between literacy and household income was discussed in chapter 2.

Employment Status

Occupation

Weekly Wage or Salary

Job Skills and Job Training

Public Assistance Participation

Summary

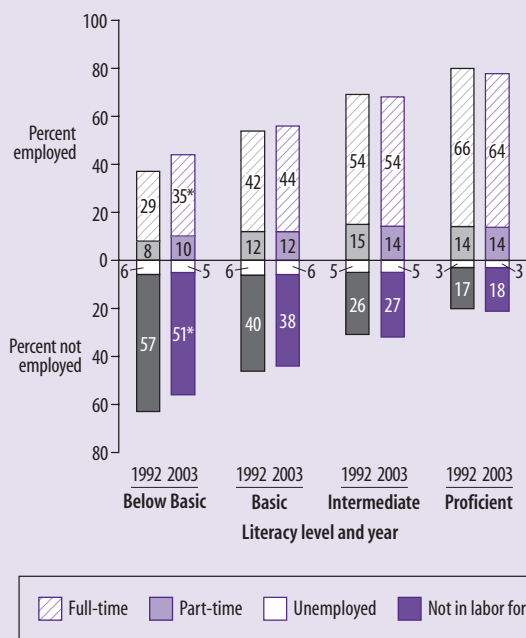
Employment Status

Higher percentages of adults with higher literacy levels than adults with lower literacy levels were employed full-time, and lower percentages were out of the labor force (figures 4-1a, 4-1b, and 4-1c). For example, lower percentages of adults with *Below Basic* prose, document, and quantitative literacy were employed either part- or full-time than adults with higher literacy levels. Similarly, lower percentages of adults with *Basic* prose, document, and quantitative literacy were employed full-time and higher percentages were out of the labor force than

adults with *Intermediate* or *Proficient* literacy. Lower percentages of adults with *Intermediate* literacy than adults with *Proficient* literacy worked full-time, and higher percentages of adults with *Intermediate* literacy than adults with *Proficient* literacy were out of the labor force.

Across the prose, document, and quantitative scales, approximately two-thirds of adults with *Proficient* literacy and half of adults with *Intermediate* literacy were employed full-time. At least 50 percent of adults with *Below Basic* literacy, on each of the three scales, were not in the labor force.

Figure 4-1a. Percentage of adults in each employment status category, by prose literacy level: 1992 and 2003

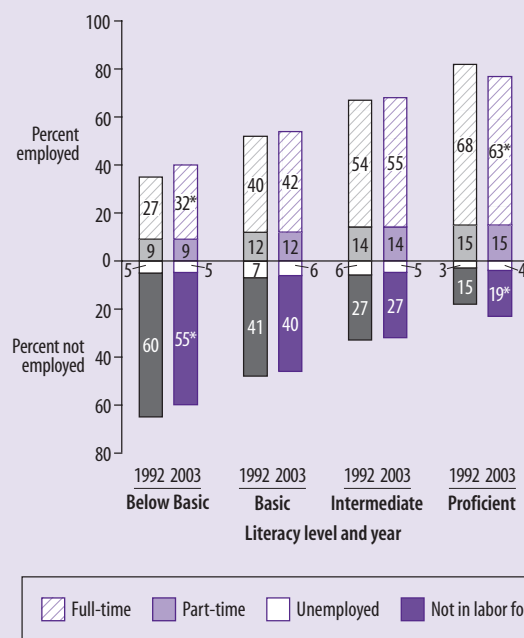


*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 4-1b. Percentage of adults in each employment status category, by document literacy level: 1992 and 2003



*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

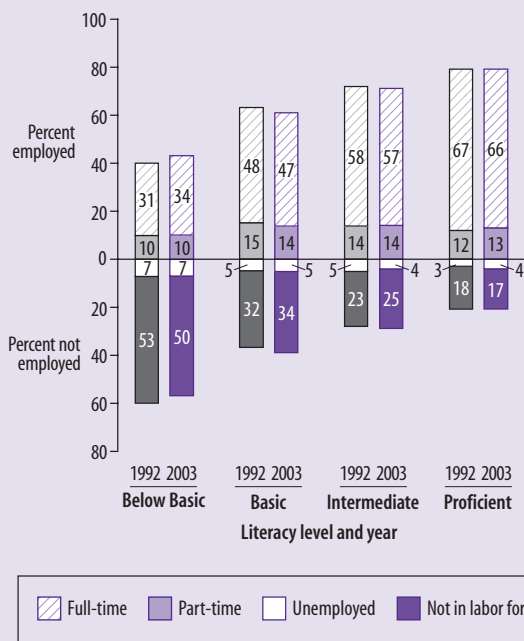
The percentages of adults with *Below Basic* prose and document literacy who were employed full-time increased between 1992 and 2003, but there was no statistically significant change on the quantitative scale. Between 1992 and 2003 there were also corresponding decreases in the percentages of adults with *Below Basic* prose and document literacy who were out of the labor force. Among adults with *Proficient* document literacy, there was a decrease between 1992 and 2003 in the percentage of adults who were employed full-time.

Occupation

Given the varying level of skills required by different jobs, the study looked at the literacy of adults with different types of jobs.⁷ The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were coded into 2003 categories using a cross walk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked.⁸

Table 4-1 shows the 10 occupational groups examined in this study and the occupations represented in those groups. The largest occupational groups in the 2003 household sample were *Professional and related* and *Service*, accounting for 20 percent and 19 percent of employed respondents, respectively (table 4-2).⁹

Figure 4-1c. Percentage of adults in each employment status category, by quantitative literacy level: 1992 and 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

⁷ Respondents who had held a job in the last 3 years were asked to provide the name of their occupation along with the most important activities or duties of their job. This information was used to assign each job an occupational code from the 2000 Census Bureau's Classified Index of Occupations, U.S. Department of Commerce, Bureau of the Census, Housing and Household Economic Statistics Division. Occupations from 1992 and 2003 were then collapsed into 10 major occupational groups.

⁸ For more information on this cross walk see U.S. Census Bureau (2003). For more information on the coding, see appendix B.

⁹ The percentages in table 4-2, which are based on the adult literacy data, were compared with results from the 2000 Census (Fronczek and Johnson 2003). All differences are within 4 percentage points.

Table 4-1. Description of major occupational groups

Management, Business, and Financial	Management occupations (e.g., chief executives; general and operations managers; farmers, ranchers, and agricultural managers; and purchasing managers) and business and financial operations occupations (e.g., accountants and auditors; wholesale and retail buyers; and insurance underwriters).
Professional and related	Computer and mathematical occupations; architecture and engineering occupations; life, physical, and social science occupations; community and social services occupations; legal occupations; education, training, and library occupations; arts, design, entertainment, sports, and media occupations; and healthcare practitioner and technical occupations.
Service	Healthcare support occupations; protective service occupations; food preparation and serving related occupations; building and grounds cleaning and maintenance occupations; and personal care and service occupations.
Sales and related	Cashiers; counter and rental clerks; demonstrators, product promoters, and models; insurance sales agents; real estate brokers and agents; retail salespersons; sales engineers; sales representatives, wholesale and manufacturing; sales worker supervisors; securities, commodities, and financial services sales; and travel agents.
Office and Administrative Support	Communications equipment operators; computer operators; customer service representatives; data entry and information processing workers; desktop publishers; financial clerks; information and record clerks; material recording, scheduling, dispatching, and distributing occupations; office and administrative support worker supervisors and managers; office clerks, general; Postal Service workers; and secretaries and administrative assistants.
Farming, Fishing, and Forestry	Agricultural workers; fishers and fishing vessel operators; forest, conservation, and logging workers.
Construction and Extraction	Boilermakers; brickmasons and stonemasons; carpenters; carpet, floor, and tile installers and finishers; cement masons and terrazzo workers; construction and building inspectors; construction equipment operators; construction laborers; drywall installers; electricians; elevator installers and repairers; glaziers; hazardous materials removal workers; insulation workers; painters and paperhangers; pipelayers and plumbers; plasterers and stucco masons; roofers; sheet metal workers; first-line supervisors/managers of construction trades and extraction workers; earth drillers, except oil and gas; mining machine operators; and helpers, extraction workers.
Installation, Maintenance, and Repair	Avionics technicians; automotive glass installers and repairers; small engine mechanics; maintenance workers, machinery; telecommunications line installers and repairers; and helpers—installation, maintenance, and repair workers.
Production	Assemblers and fabricators; food processing occupations; metal workers and plastic workers; printing occupations; textile, apparel, and furnishing occupations; woodworkers; plant and system operators; and other production occupations (e.g., dental laboratory technicians; inspectors, testers, sorters, samplers, and weighers; and photographic process workers).
Transportation and Material Moving	Air transportation occupations (e.g., aircraft pilots and flight engineers and air traffic controllers); motor vehicle operators (e.g., busdrivers; taxi drivers and chauffeurs; and truckdrivers and driver/sales workers); rail transportation occupations; water transportation occupations; and material moving occupations.

Source: Adapted from the Occupational Outlook Handbook, 2004-05 Edition, U.S. Department of Labor, Bureau of Labor Statistics, retrieved 11/10/05 from <http://www.bls.gov/oco/home.htm>.

Table 4-2. Percentage of adults in each occupational group: 1992 and 2003

Occupational group	1992	2003
Management, Business, and Financial	8	12
Professional and related	17	20
Service	20	19
Sales and related	12	11
Office and Administrative Support	17	14
Farming, Fishing, and Forestry	1	1
Construction and Extraction	5	7
Installation, Maintenance, and Repair	4	4
Production	10	8
Transportation and Material Moving	6	6

Note: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

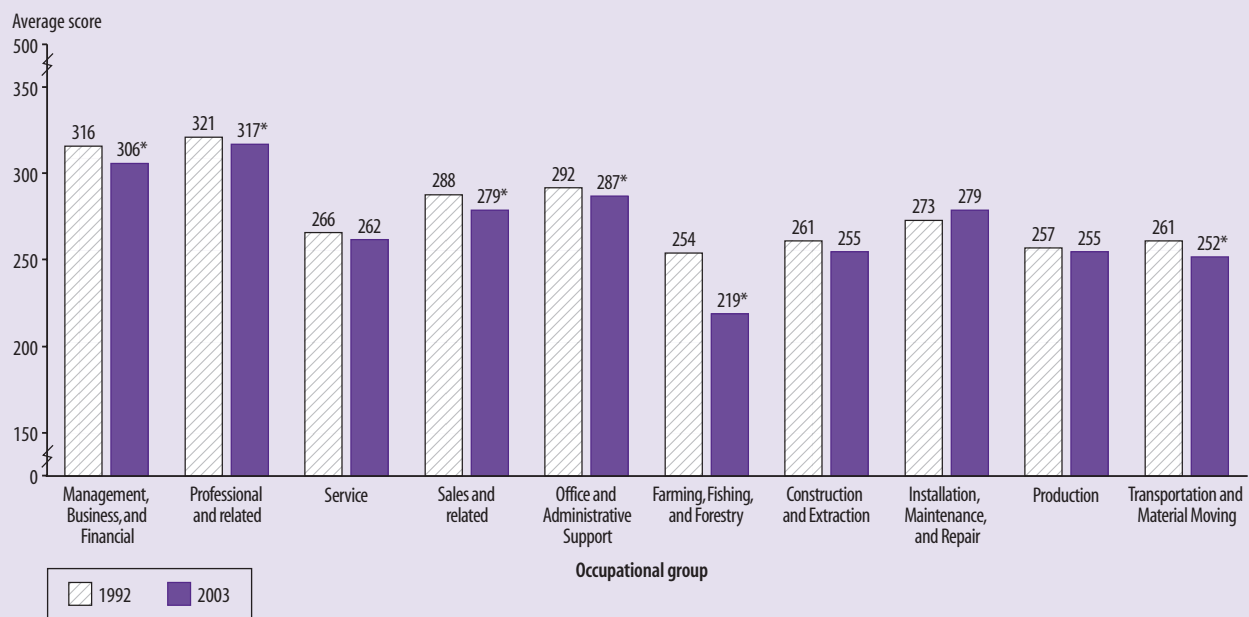
According to the U.S. Bureau of Labor Statistics, job growth in *Professional and related* and *Service* occupations is projected to account for over half the new jobs added to the nation's workforce from 2004 to 2014 (Hecker 2005). Because these occupational groups have very different educational requirements and earnings, it is useful to examine the literacy levels of adults in these occupations.

Figures 4-2a, 4-2b, and 4-2c present the average prose, document, and quantitative scores for each occupational group in 1992 and 2003. The occupational groups with the highest average prose, document, and quantitative literacy scores in 1992,

Professional and related and *Management, Business, and Financial*, were also ranked the highest in 2003. Likewise, the occupational groups with the lowest average prose, document, and quantitative literacy levels in 1992 were the lowest ranking groups in 2003. The occupational groups with the lowest average prose, document, and quantitative literacy scores were *Service*; *Farming, Fishing, and Forestry*; *Transportation and Material Moving*; *Production*; and *Construction and Extraction*.

Between 1992 and 2003, there was a statistically significant decrease in average prose literacy scores in 6 of the 10 occupational groups (*Management, Business,*

Figure 4-2a. Average prose literacy scores of adults, by occupational group: 1992 and 2003



*Significantly different from 1992.

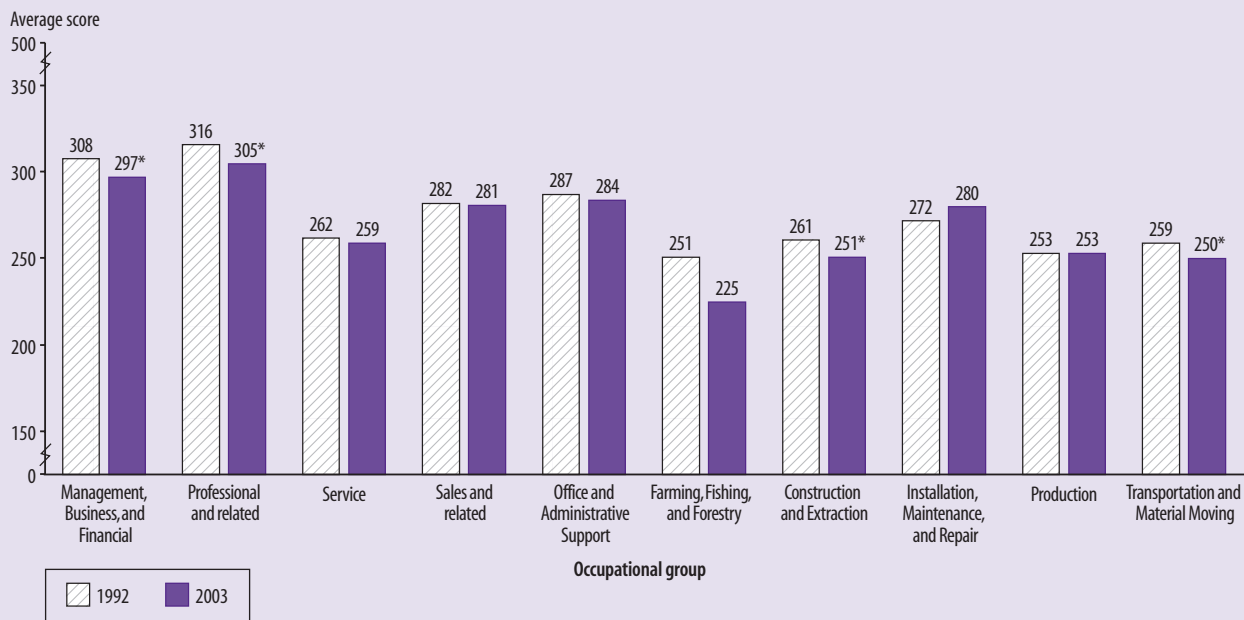
NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

and Financial; Professional and related; Sales and related; Office and Administrative Support; Farming, Fishing, and Forestry; and Transportation and Material Moving). Average document literacy scores decreased significantly in 4 occupational groups (Management, Business, and Financial; Professional and related; Construction and Extraction; and Transportation and Material Moving). In contrast, average quantitative literacy scores increased during 1992 to 2003 for adults employed in the Installation, Maintenance, and Repair and Production occupations.

In 2003, workers employed in two occupations—Professional and related and Management, Business, and Financial—accounted for a majority of adults with Proficient literacy on all three scales (table 4-3). In contrast, only 7 to 8 percent of individuals with Below Basic literacy levels worked in these two occupational groups. On the three scales, between 30 and 35 percent of those with Below Basic were in Service jobs in 2003. Conversely, 7 to 12 percent of those with Proficient literacy skills were employed in these occupations.

Figure 4-2b. Average document literacy scores of adults, by occupational group: 1992 and 2003

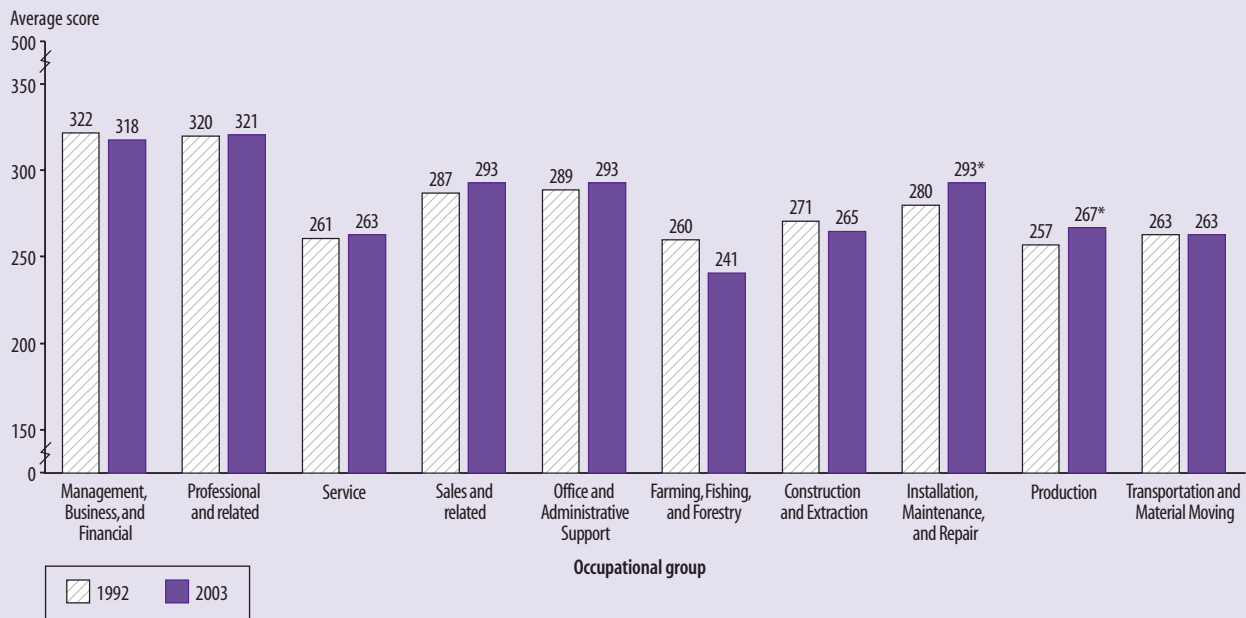


*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Figure 4-2c. Average quantitative literacy scores of adults, by occupational group: 1992 and 2003



*Significantly different from 1992.

NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table 4-3. Percentage of adults in each occupational group, by prose, document, and quantitative literacy level: 1992 and 2003

	Management, Business, and Financial		Professional and related		Service		Sales and related		Office and Administrative Support		Farming, Fishing, and Forestry		Construction and Extraction		Installation, Maintenance, and Repair		Production		Transportation and Material Moving	
	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003
Prose																				
Below Basic	3	3	3	4	32	30	6	8	8	8	4	3	10	15*	5	2*	19	15	12	11
Basic	5	8*	8	10*	25	24	12	12	15	14	2	1*	7	9	5	4	13	11*	8	9
Intermediate	9	15*	18	21*	18	16	14	12*	20	16*	1	#	5	5	4	4	8	7	5	4
Proficient	17	19	36	42*	10	10	9	7	15	13	1	#	3	3	2	2	3	3	3	2*
Document																				
Below Basic	3	3	4	5	33	35	7	6	8	6	3	3	9	15*	5	2*	17	15	11	10
Basic	5	7*	8	10*	25	24	12	10	15	13	2	1*	7	9*	5	4	14	12	8	9
Intermediate	9	15*	17	20*	18	16*	13	12*	19	17*	1	#	5	6	4	4	8	7*	6	5
Proficient	15	17	36	39	11	12	9	9	15	12	1	1	3	3	3	3	3	3	3	1*
Quantitative																				
Below Basic	3	3	5	5	32	33	9	8	10	10	2	2	8	12*	5	2*	16	13	11	10
Basic	6	9*	12	14*	22	22	13	12	19	16*	2	1*	5	8*	4	4	11	9	6	7
Intermediate	10	15*	21	23*	15	14	13	11	20	16*	1	#	5	5	4	4	7	6	5	4
Proficient	19	22	36	37	9	7	9	10	11	12	1	1	4	3	4	3	4	4	4	2*

Rounds to zero.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Weekly Wage or Salary

In general, adults with lower literacy levels earned lower salaries (figures 4-3a, 4-3b, and 4-3c). On each of the three scales, 17 to 18 percent of adults with *Below Basic* literacy earned less than \$300 a week, while 3 to 6 percent of adults with *Proficient* literacy fell into that earnings category. Conversely, on each of the three scales, 12 to 14 percent of adults with *Proficient* literacy earned \$1950 or more each week compared with 2 to 3 percent of adults with *Below Basic* literacy. A person who worked for an entire year (52 weeks) and earned \$300 per week would earn approximately \$16,000 over the course of the year, while a person who worked for an entire year and earned \$1950 per week would earn approximately \$101,000 over a year.

Figure 4-3a. Percentage of full-time employed adults in each weekly gross earnings category, by prose literacy level: 2003

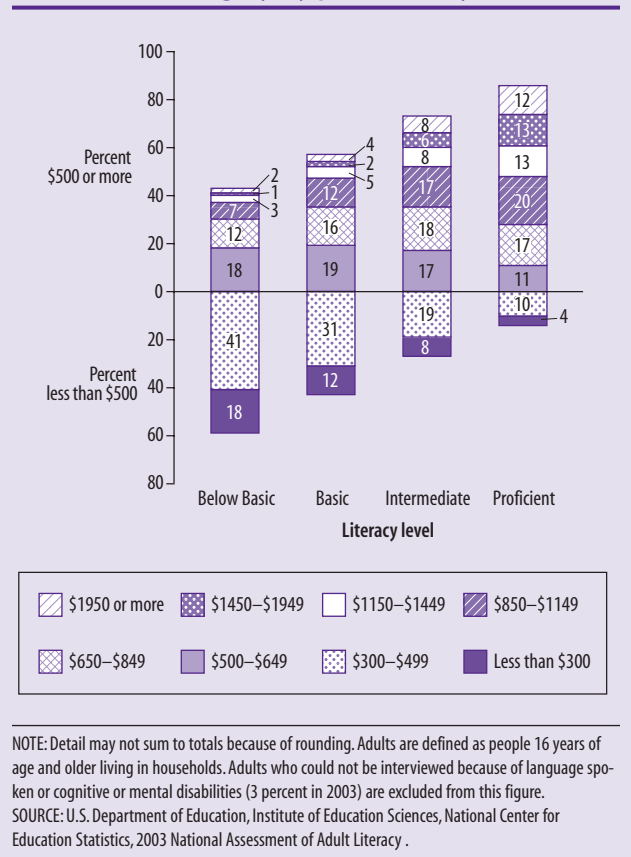
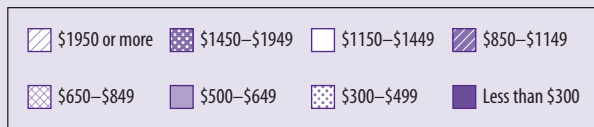
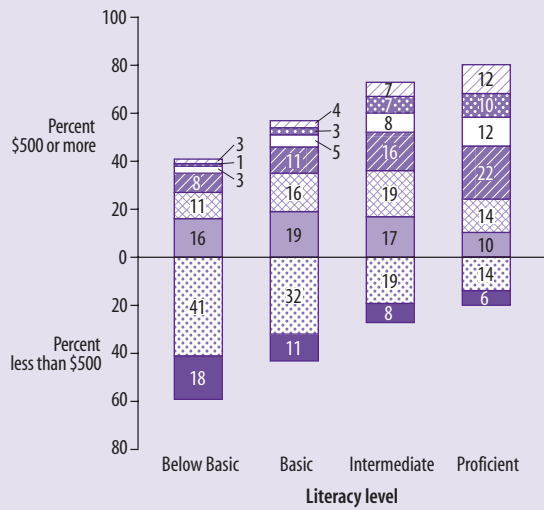
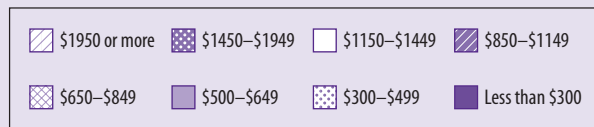
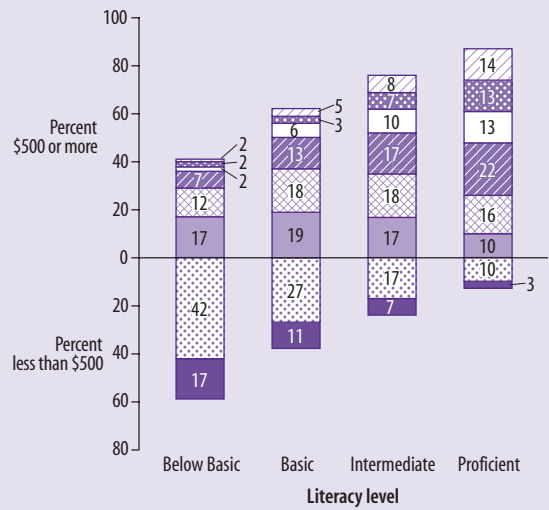


Figure 4-3b. Percentage of full-time employed adults in each weekly gross earnings category, by document literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 4-3c. Percentage of full-time employed adults in each weekly gross earnings category, by quantitative literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

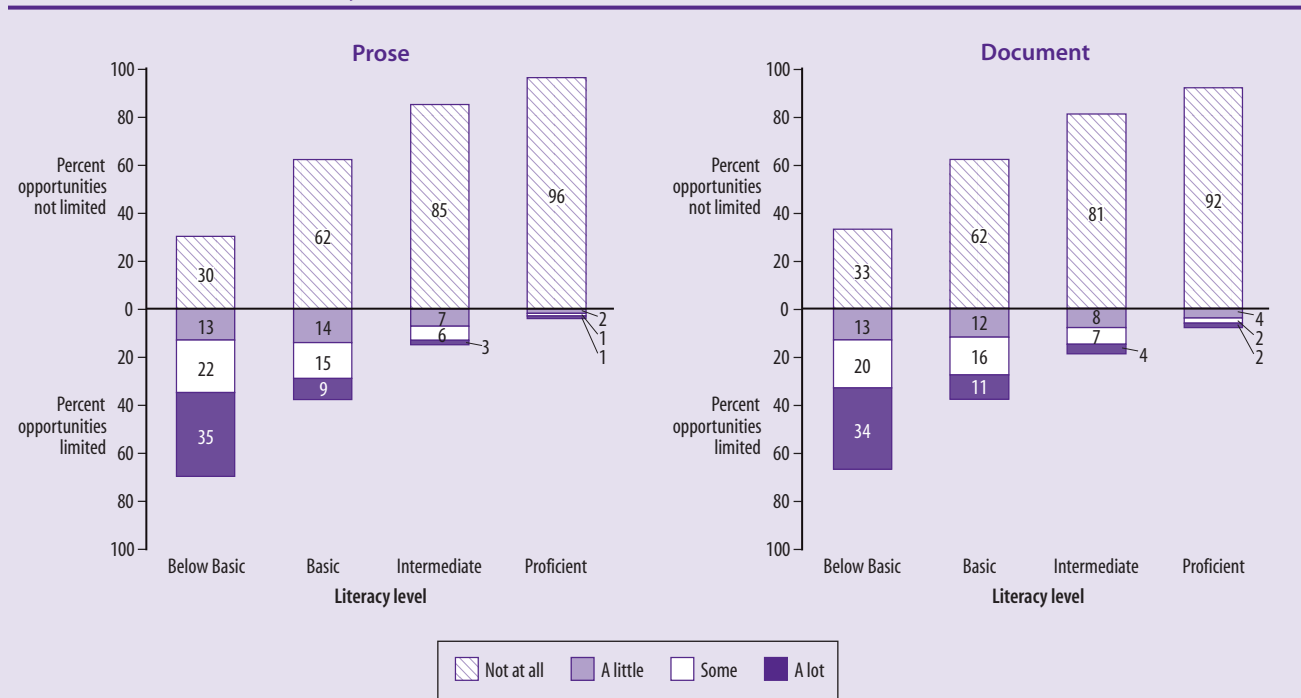
Job Skills and Job Training

Reading, mathematics, and computer skills are essential to entering, retaining, and advancing in many jobs throughout the labor force. As technological and economic changes continue, individuals whose literacy skills had previously been adequate may suddenly find themselves lacking sufficient basic skills, a situation that limits their opportunities for jobs or career advancement (Davenport 2005). Respondents (except those who were retired) were asked to what extent they believed that their reading, mathematics, and computer skills limited their job opportunities.

Reading Skills

In 2003, adults with lower levels of prose and document literacy were more likely to report that their reading skills limited their job opportunities than were adults in the higher literacy levels. Thirty-five percent of adults with *Below Basic* prose literacy and 34 percent of adults with *Below Basic* document literacy reported that their reading skills limited their job opportunities “a lot” (figure 4-4). An additional 22 percent of adults with *Below Basic* prose literacy and 20 percent of adults with *Below Basic* document literacy indicated that there was “some” limitation to their job opportunities as a result of their reading skills. In contrast,

Figure 4-4. Percentage of adults who thought their reading skills limited their job opportunities, by prose and document literacy level: 2003



Note: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported that they were retired are not included in these analyses.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

nearly all those with *Proficient* prose and document literacy (92 to 96 percent) agreed that their reading skills did “not at all” limit their job opportunities.

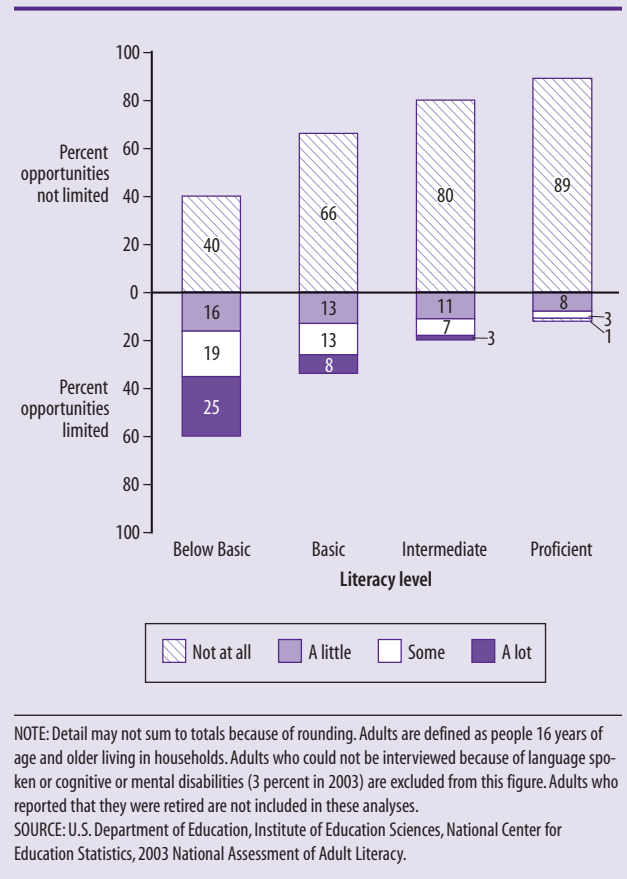
Thirty percent of adults with *Below Basic* prose literacy and 33 percent of adults with *Below Basic* document literacy indicated that their reading skills did “not at all” limit their job opportunities. Also, 62 percent of adults with *Basic* literacy indicated that their job opportunities were “not at all” limited by their reading skills.

Mathematics Skills

Fewer adults with *Below Basic* quantitative literacy felt that their mathematics skills limited their job opportunities “a lot” when compared with the percentage of those with *Below Basic* prose and document literacy who felt limited by their reading skills.

In 2003, some 25 percent of adults with *Below Basic* quantitative literacy reported that their mathematics skills limited their job opportunities “a lot,” while 40 percent reported that their job opportunities were “not at all” limited by their mathematics skills (figure 4-5). Nearly 90 percent of adults with *Proficient* quantitative literacy and 80 percent of adults with *Intermediate* quantitative literacy reported that their job opportunities were “not at all” limited by their mathematics skills.

Figure 4-5. Percentage of adults who thought their mathematics skills limited their job opportunities, by quantitative literacy level: 2003



Computer Skills

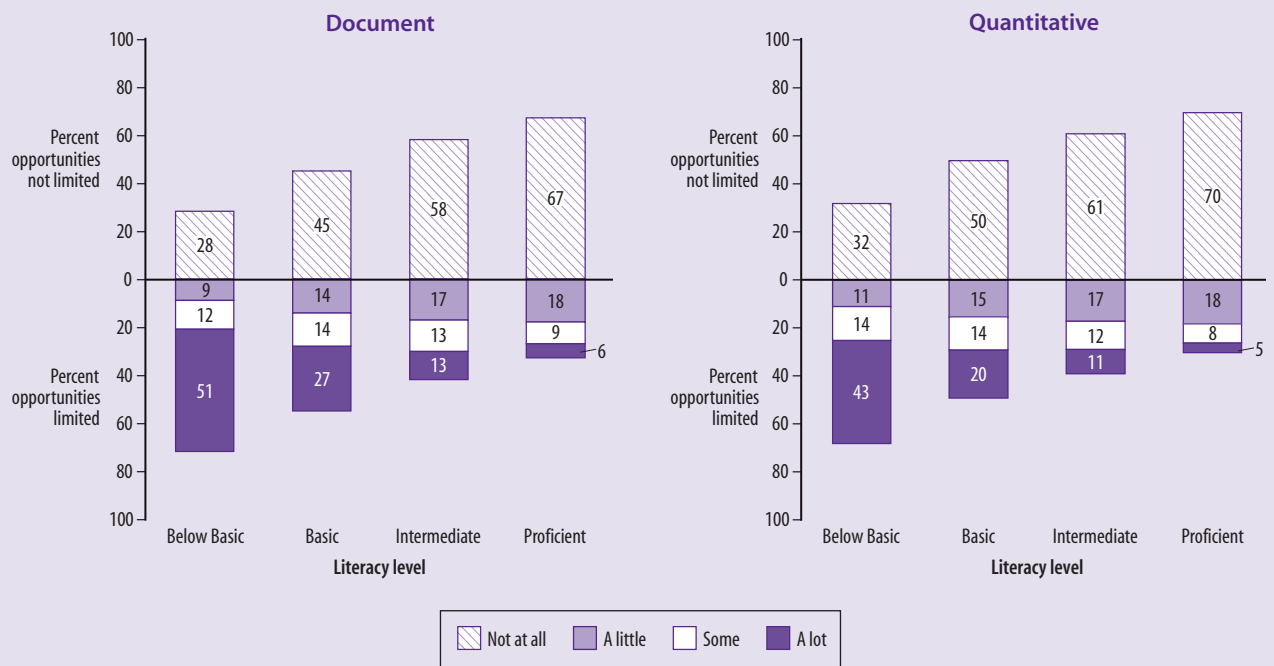
In 2003, 51 percent of adults with *Below Basic* document literacy and 43 percent of adults with *Below Basic* quantitative literacy believed that their job opportunities were limited “a lot” by their computer skills. Yet 28 percent of adults with *Below Basic* document literacy and 32 percent of adults with *Below Basic* quantitative literacy did “not at all” feel that their computer skills limited their job opportunities (figure 4-6).

Approximately 67 percent of adults with *Proficient* document literacy and 70 percent with *Proficient* quantitative literacy reported that their computer skills did “not at all” limit their job opportunities. Fifty-eight percent of adults with *Intermediate* document literacy and 61 percent with *Intermediate* quantitative literacy reported that their job opportunities were “not at all” limited by their computer skills.

Training to Improve Reading, Mathematics, and Computer Skills

Regardless of their literacy levels, 9 percent of adults who reported that their reading skills limited their job opportunities “a lot” or “some” had participated in job training activities to improve their English reading skills during the past year (data not shown). Eight percent of adults who thought that their job opportunities were limited “a lot” or “some” by their mathematics skills participated in job training activities that emphasized mathematics during the past year. Of all adults who believed that their job opportunities were limited “a lot” or “some” by their computer skills, 12 percent had participated in computer job training activities during the past year.

Figure 4-6. Percentage of adults who thought their computer skills limited their job opportunities, by document and quantitative literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported that they were retired are not included in these analyses.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

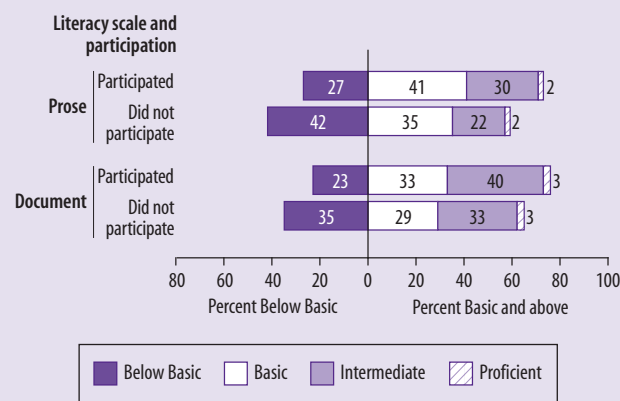
A lower percentage of adults who reported that their reading skills limited their job opportunities and who participated in job training activities with a reading focus had *Below Basic* prose literacy and a higher percentage had *Intermediate* prose literacy than adults who reported that their reading skills limited their job opportunities and had not participated in job training with a reading focus (figure 4-7).

Among adults in each quantitative literacy level who reported that their mathematics skills limited their job opportunities, there were no statistically significant differences in the percentages who did and did not participate in job training that emphasized mathematics (figure 4-8).

A lower percentage of adults who reported that their computer skills limited their job opportunities and who participated in job training activities with a computer focus had *Below Basic* quantitative literacy and a higher percentage had *Intermediate* and *Proficient*

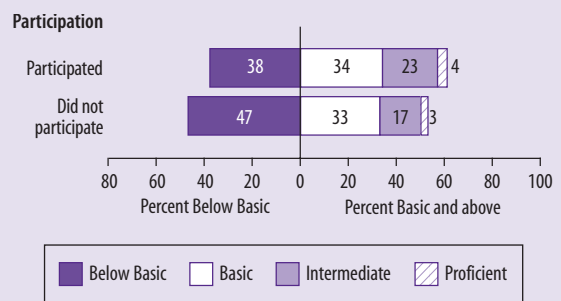
quantitative literacy than adults who reported that their computer skills limited their job opportunities and had not participated in job training with a computer focus (figure 4-9).

Figure 4-7. Percentage of adults in each prose and document literacy level who thought their reading skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized reading: 2003



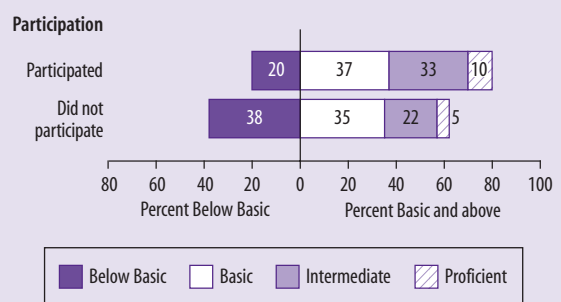
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported that they were retired are not included in these analyses.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 4-8. Percentage of adults in each quantitative literacy level who thought their mathematics skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized mathematics: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported that they were retired are not included in these analyses.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 4-9. Percentage of adults in each quantitative literacy level who thought their computer skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized computers: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported that they were retired are not included in these analyses.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

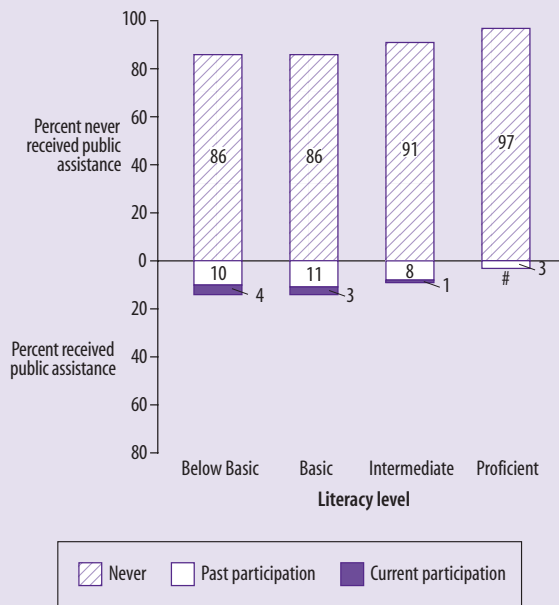
Public Assistance Participation¹⁰

As found with the 1992 National Adult Literacy Survey, there is a relationship between literacy and participation in public assistance (Barton and Jenkins 1995). Among women with *Below Basic* prose litera-

¹⁰ The main public assistance program in the United States is Temporary Assistance to Needy Families (TANF). This program targets needy families with children, primarily single mothers. Therefore the analyses in this section are limited to women only.

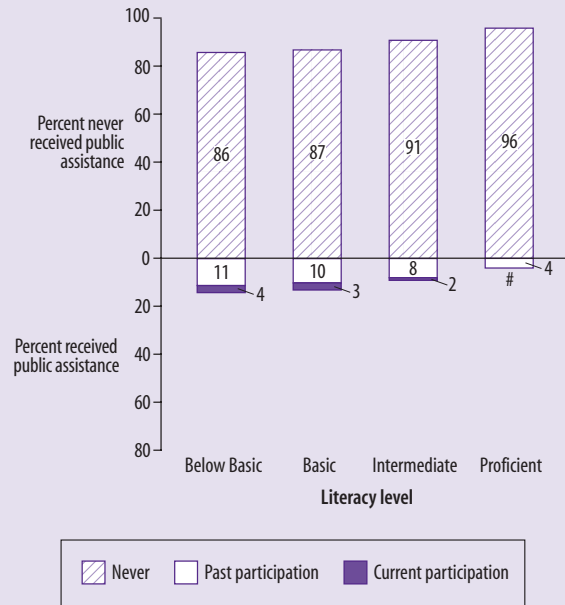
cy, 10 percent had previously received public assistance and 4 percent were currently receiving public assistance (figure 4-10a). For women with *Basic* prose literacy, 11 percent had previously received public assistance and 3 percent were currently receiving public assistance. In contrast, among women with *Proficient* prose literacy, 3 percent had previously received public assistance and less than 0.5 percent were currently receiving public assistance.

Figure 4-10a. Percentage of women who were currently receiving public assistance or had received public assistance in the past, by prose literacy level: 2003



Rounds to zero.
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 4-10b. Percentage of women who were currently receiving public assistance or had received public assistance in the past, by document literacy level: 2003



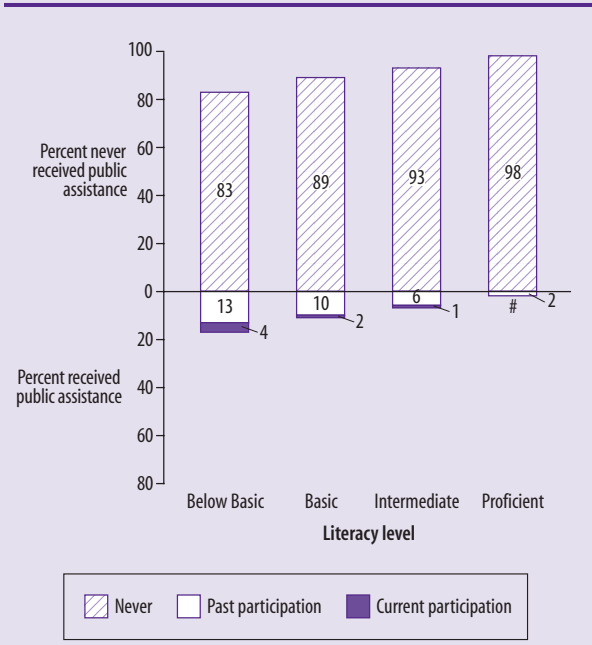
Rounds to zero.
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

The patterns for the document and quantitative scales were similar (figures 4-10b and 4-10c).

Respondents who had received public assistance were asked the total amount of time they had received public assistance in their lifetime. Table 4-4 displays the percentages of women who were on public assistance for various amounts of time: never; less than 6 months; 6 months to a year; over a year but less than 2 years; 2 to 3 years; and over 3 years.

In general, a lower percentage of women with higher levels of literacy than women with lower levels of literacy received public assistance. If they did receive public assistance, they participated for shorter periods of time. Of those who received public assistance for over 3 years, higher percentages of women were at the *Basic* literacy level than at the *Intermediate* level of literacy across all three scales. Similarly, higher percentages of women with prose, document, and quantitative *Intermediate* literacy received public assistance for over 3 years than women with *Proficient* literacy. On the quantitative scale, a higher percentage of women with *Below Basic* literacy than with *Basic* literacy received public assistance for over 3 years.

Figure 4-10c. Percentage of women who were currently receiving public assistance or had received public assistance in the past, by quantitative literacy level: 2003



Rounds to zero.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table 4-4. Percentage of women who received public assistance for varying lengths of time, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Less than 6 months	6 months to 1 year	1–2 years	2–3 years	More than 3 years
Prose						
Below Basic	87	2	1	3	2	6
Basic	87	2	2	2	2	5
Intermediate	91	2	2	1	2	3
Proficient	97	1	1	1	#	1
Document						
Below Basic	86	2	1	2	2	7
Basic	87	2	2	2	2	5
Intermediate	91	2	2	2	2	3
Proficient	96	1	1	1	#	1
Quantitative						
Below Basic	84	2	2	3	2	7
Basic	89	2	2	2	2	4
Intermediate	93	1	1	1	1	2
Proficient	98	1	#	1	#	1

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Summary

This chapter examined literacy skills in relation to employment status, occupational attainment, weekly wage or salary, perceived job opportunities, and public assistance participation for the 2003 household sample. In addition, trends in adult literacy between 1992 and 2003 were discussed for employment status and occupational attainment.

A higher percentage of adults with higher literacy levels were employed full-time and a lower percentage were out of the labor force than adults with lower literacy levels.

On all three literacy scales, individuals with *Proficient* literacy levels were most likely to be employed in *Professional and related* and *Management, Business, and Financial* occupations. Many individuals with lower literacy levels were employed in *Service* occupations. Specifically, 30 to 35 percent of adults with *Below*

Basic and 22 to 24 percent of adults with *Basic* prose, document, and quantitative literacy worked in *Service* jobs. Conversely, 7 to 12 percent of adults with *Proficient* literacy were employed in *Service* occupations.

In general, those with lower literacy levels earned lower incomes. In the three lowest income categories, a greater percentage of adults scored in the *Below Basic* or *Basic* levels when compared with the percentage of those with *Proficient* literacy. Conversely, of adults earning \$1450 or more a week, fewer than 5 percent were at the *Below Basic* literacy level, compared with the approximately 25 percent who scored at the *Proficient* level of literacy on any of the three scales.

Of adults with *Below Basic* prose and document literacy, 34 to 35 percent felt that their reading skills limited their job opportunities “a lot.” Of adults with

Below Basic quantitative literacy, 25 percent felt limited by their mathematics skills, while 43 to 51 percent of adults with *Below Basic* document and quantitative literacy felt hindered by their computer skills. A small proportion (8 to 12 percent) of adults who reported that their job opportunities were limited “a lot” or “some” by insufficient reading, mathematics, or com-

puter skills participated in training or education within the previous year.

In general, women with higher levels of literacy were less likely to have received public assistance. If they did receive public assistance, they reported participating for a shorter amount of time when compared with women with lower levels of literacy.

Literacy and the Family

The analyses in this chapter examine how parents, grandparents, and guardians with different literacy levels interacted with the children living in their homes around issues related to literacy and school. The analyses also examine the relationship between the literacy of adults living in a home and whether or not the home had educational resources—including books and computers—that encourage children to read and actively engage in other academic and intellectual pursuits.

Throughout the chapter, the word *parent* refers to parents, grandparents, or guardians who had children living in their household for at least 10 days out of the month.

Parent-Child Literacy-Related Interactions

Educational Resources in the Home

School Involvement

Summary

Parent-Child Literacy-Related Interactions

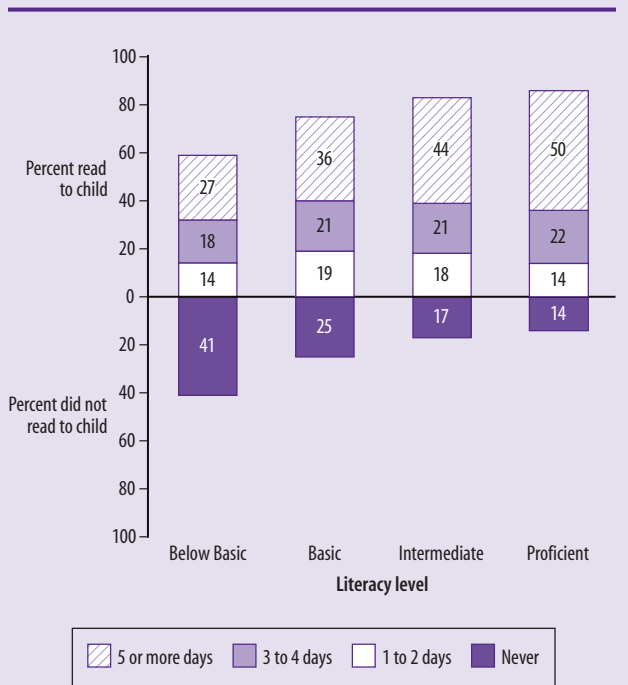
Reading to Children

Higher percentages of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy who had children under age 8 reported that they read to their children 5 or more days a week: half of parents with *Proficient* prose literacy and 44 percent of parents with *Intermediate* prose literacy read to their children 5 or more days compared with 36 percent of parents with *Basic* prose literacy (figure 5-1). Additionally, a higher percentage of parents with *Basic* than with *Below Basic* prose literacy who had children under age 8 reported that they read to their children 5 or more days a week: 36 percent of

parents with *Basic* prose literacy read to their children 5 or more days compared with 27 percent of parents with *Below Basic* prose literacy.

A lower percentage of parents with *Below Basic* than with *Basic* prose literacy who had children under age 8 reported that they read to their children during the previous week: 41 percent of parents with *Below Basic* prose literacy did not read to their children at all compared with 25 percent of parents with *Basic* prose literacy (figure 5-1). Additionally, a lower percentage of parents with *Basic* prose literacy than parents with either *Intermediate* or *Proficient* prose literacy reported that they read to their children at all during the previous week: 25 percent of parents with *Basic* prose literacy did not read to their children at all compared with 17 percent of parents with *Intermediate* prose literacy and 14 percent of parents with *Proficient* prose literacy.

Figure 5-1. Percentage of parents who read to or with their children under age 8 during the previous week, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes -parents, grandparents, and guardians who had a child living with them 10 or more days a month. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Learning the Alphabet

In addition to reading to their children, parents may participate in other types of literacy-related activities with them. Knowing the letters of the alphabet before starting school is a predictor of a school-age child's reading level (Adams 1990, Schatschneider et al. 2004; Whitehurst and Lonigan 2001). The 2003 adult literacy assessment background questionnaire included a question asking parents with young children how often they tried to teach their children the letters of the alphabet. Parents were given the option of saying that their children already knew the letters of the alphabet. In this section, results are reported on this question for parents with children ages 3 through 5.

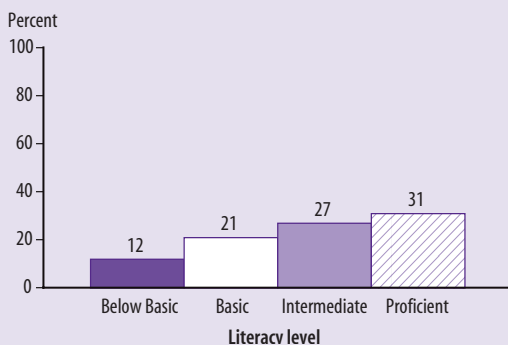
A higher percentage of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy reported that they had children between the ages of 3 and 5 who knew the letters of the alphabet. Additionally, a higher percentage of parents with *Basic*, *Intermediate*, or *Proficient* prose literacy than parents

with *Below Basic* prose literacy reported that they had children between the ages of 3 and 5 who knew the letters of the alphabet (figure 5-2). Among parents with children between the ages of 3 and 5 who did not already know the letters of the alphabet, 19 percent of parents with *Below Basic* prose literacy reported that they never tried to teach their children the letters of the alphabet, compared with 7 percent of parents with *Intermediate* prose literacy and 8 percent of parents with *Proficient* prose literacy (figure 5-3).

Learning to Read Words

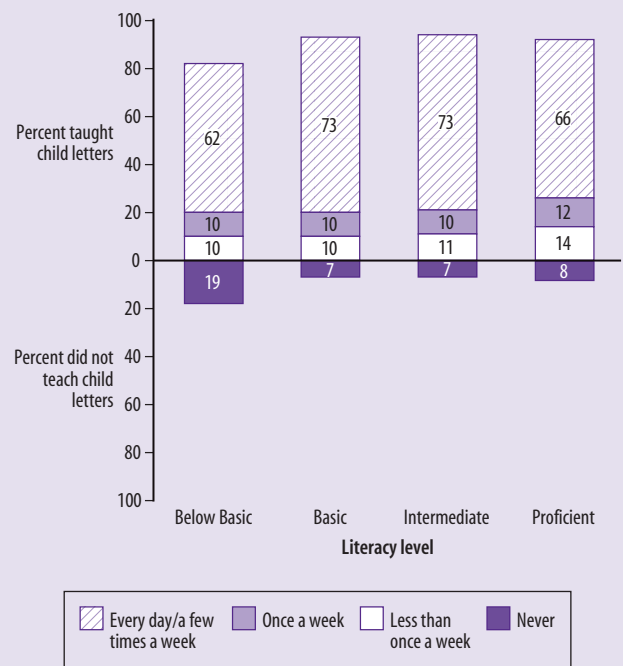
Most parents reported that they pointed out words to their children under the age of 8 and asked the children what the words meant at least a few times a week (table 5-1). Across literacy levels, there were only a few significant differences in the frequency with which parents reported that they tried to teach their children to read words: a higher percentage of parents with *Intermediate* prose literacy than parents with *Below Basic* prose literacy taught their children words a few times a week or more, and a higher

Figure 5-2. Percentage of parents whose children between the ages of 3 and 5 knew the letters of the alphabet, by prose literacy level: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 5-3. Percentage of parents with children who did not already know the letters of the alphabet who tried to teach their children between the ages of 3 and 5 the letters of the alphabet during the previous month, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table 5-1. Percentage of parents who tried to teach their children under the age of 8 to read words during the previous month, by prose literacy level: 2003

	Child already reads well	Less than once a week			Every day/a few times a week
		Never	Once a week	Every day/a few times a week	
Below Basic	5	25	9	8	53
Basic	4	22	8	7	59
Intermediate	4	20	8	7	61
Proficient	4	20	11	8	57

NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

percentage of parents with *Proficient* prose literacy than parents with *Basic* or *Intermediate* prose literacy taught their children to read words less than once a week. There were no statistically significant differences across parents' prose literacy levels in the percentage who reported that their children under age 8 could already read well (table 5-1).

Rhyming Activities

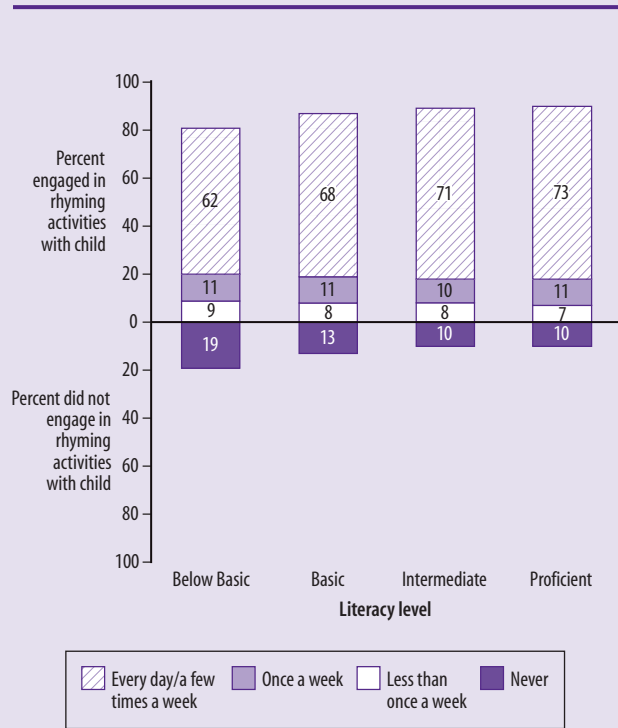
The ability to hear and understand rhymes is an important skill for children learning to read (Anthony and Lonigan 2004). Parents of young children often engage in a variety of activities that help make their children sensitive to the sounds of rhymes: singing songs, reciting nursery rhymes, or playing rhyming games such as “patty cake” or “ring around the rosey.” The percentage of parents who reported that they had engaged in some type of rhyming activity with their children under the age of 8 during the previous month ranged from 81 to 90 percent across the four prose literacy levels (figure 5-4). Higher percentages of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy reported engaging in rhyming activities with their children, and a higher percentage of parents with *Basic* prose literacy than parents with *Below Basic* prose literacy reported engaging in rhyming activities.

Talking to Children About School and Homework

Schools usually encourage parents to be actively involved in their children's education (Carey, Lewis, and Faris 1998). The percentage of parents who reported that they talked to their school-age children every day about things they studied in school ranged from 56 to 71 percent across the four prose literacy levels (figure 5-5). A lower percentage of parents with *Below Basic* prose literacy than parents with *Basic*, *Intermediate*, or *Proficient* prose literacy reported that they talked to their children about

things they studied in school. Eleven percent of parents with *Below Basic* prose literacy who had school-age children never talked to their children about things they studied in school compared with 2 percent of parents with *Basic*, *Intermediate*, or *Proficient* prose literacy. Conversely, a lower percentage of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy reported that they talked to their children every day about things they studied in school, and a higher percentage of parents with *Basic* prose literacy than parents with *Below Basic* prose literacy talked to their children every day about things they studied in school.

Figure 5-4. Percentage of parents who engaged in rhyming activities with their children under the age of 8 during the previous month, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

The percentage of parents who reported that they helped their children with homework or worked with their children on homework at least occasionally ranged from 75 to 92 percent across the four literacy levels (figure 5-6). The percentage of parents who reported that they never worked with their children on homework declined with each increasing prose literacy level: 25 percent of parents with *Below Basic* prose literacy, 14 percent of parents with *Basic* prose literacy, 11 percent of parents with *Intermediate* prose literacy, and 8 percent of parents with *Proficient* prose literacy never helped or worked with their children on homework.

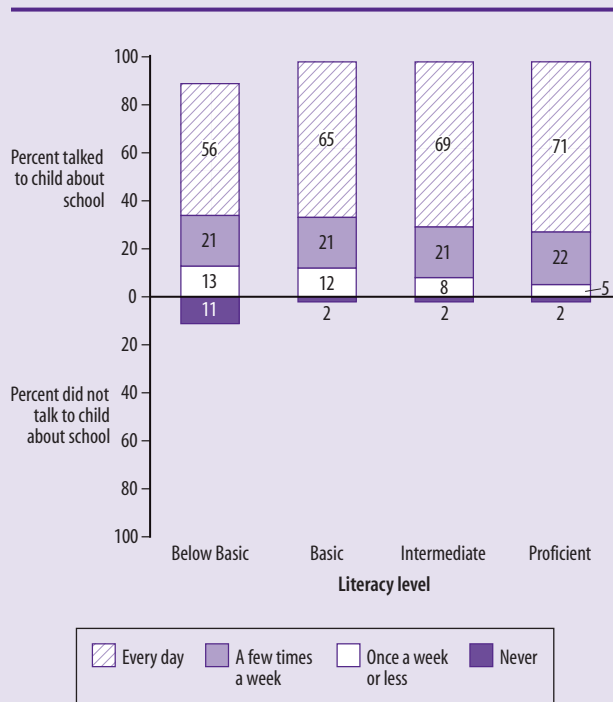
Educational Resources in the Home

Families' environments differ in the extent to which they provide resources that encourage children to read and actively engage in other academic and intellectual pursuits. The next section of this chapter examines the relationship between parents' literacy and educational resources in the home.

Reading and Reading Materials in the Home

According to parents' self-reports, parents with high literacy levels were more likely to be seen reading by their children. Ninety percent of adults with *Proficient* prose literacy, 81 percent of adults with *Intermediate*

Figure 5-5. Percentage of parents who talked to their school-age children about things they studied in school, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 5-6. Percentage of parents who helped or worked with their school-age child on homework, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

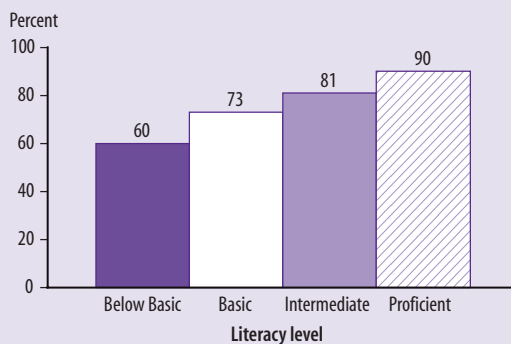
prose literacy, 73 percent of adults with *Basic* prose literacy, and 60 percent of adults with *Below Basic* prose literacy said that their children ages 2 through 17 often saw them reading (figure 5-7).

The percentage of adults who lived with children under the age of 18 and had no reading materials in their home decreased with each increasing level of prose literacy: 19 percent of adults with *Below Basic* prose literacy and 3 percent or fewer of adults with higher levels of literacy who lived with children under age 18 reported that they had no reading materials in their home (figure 5-8).¹¹

Conversely, the percentage of adults who lived with children under the age of 18 and reported that they had many reading materials in their home increased with each increasing level of prose literacy: 54 percent of adults with *Below Basic* prose literacy, 83 percent of adults with *Basic* prose literacy, 92 percent of adults with *Intermediate* prose literacy, and 96 percent of adults with *Proficient* prose literacy who lived with children under the age of 18 reported that they had many reading materials in their home.¹²

¹¹ Questions about reading materials in the home were not asked of respondents who were under the age of 18 unless there were younger children in the home.

Figure 5-7. Percentage of parents whose children ages 2 through 17 often saw them reading, by prose literacy level: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

with *Intermediate* prose literacy, and 96 percent of adults with *Proficient* prose literacy who lived with children under the age of 18 reported that they had many reading materials in their home.¹²

¹² The 2003 background questionnaire asked all adults with children under age 18 living in their home whether they had 25 or more books in their home and also whether they had a variety of magazines and other reading materials in their home. Adults who had both 25 or more books and a variety of magazines and other reading materials in their home were categorized as having many reading materials in their home; adults who had either 25 or more books or a variety of magazines and other reading materials in their home were categorized as having some reading materials in their home; adults who had neither 25 or more books nor a variety of magazines and other reading materials in their home were categorized as having no reading materials in their home.

Figure 5-8. Percentage of adults who lived with children under age 18 and had reading materials in the home, by prose literacy level: 2003

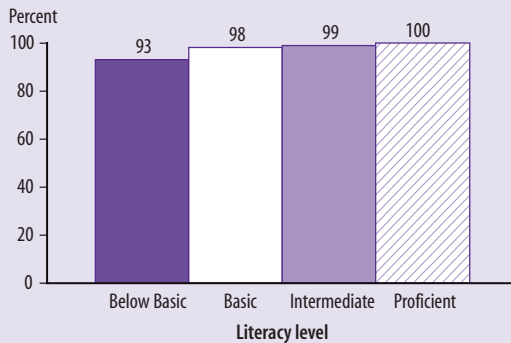


Rounds to zero.
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Across the four prose literacy levels, 93 to 100 percent of parents said that their children ages 2 through 17 had at least one or two books of their own (figure 5-9). However, higher percentages of parents

with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy reported that their children had their own books, and a higher percentage of parents with *Basic* prose literacy than parents with *Below Basic* prose literacy reported that their children had their own books.

Figure 5-9. Percentage of parents whose children ages 2 through 17 had their own books, by prose literacy level: 2003



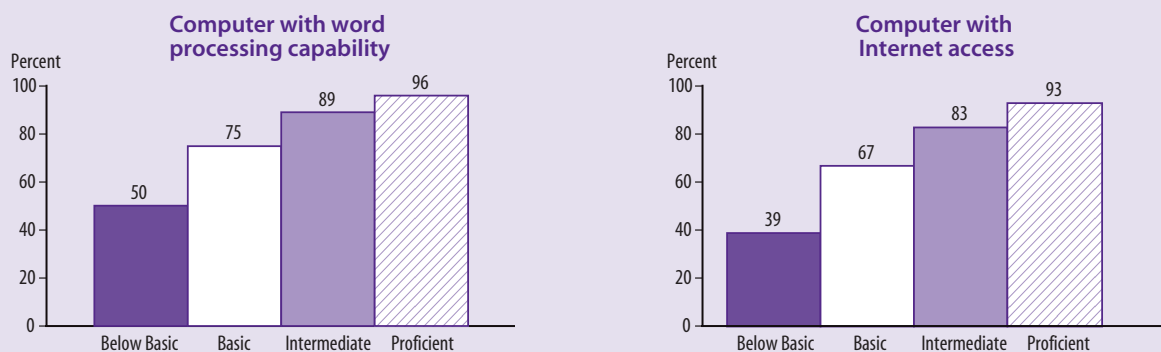
NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Computers in the Home

Adults were asked whether they had a computer in their home that could be used for word processing and whether they had a computer in their home with Internet access. Among adults living in households with children under the age of 18, the percentage of adults who said they lived in a home that had a computer with word processing capability or Internet access increased with every increasing level of prose literacy (figure 5-10).

Figure 5-10. Percentage of adults living in households with children under age 18 who had a computer in their home with word processing capability or Internet access, by prose literacy level: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

School Involvement

Parents of school-age children were asked whether they had been involved in their children’s schools during the previous year in any of the following ways:

- Volunteered to help out at the school, including in the classroom, on a field trip, or at a school event such as a party or school fair
- Gone to a parent-teacher or other type of meeting at the school
- Spoken individually with a teacher to see how their children were doing in school
- Sent food or other items to share in the classroom

Forty percent of parents with *Proficient* prose literacy reported doing all four activities during the previous year compared with 29 percent of parents with *Intermediate* prose literacy, 25 percent of parents with *Basic* prose literacy, and 23 percent of parents with *Below Basic* prose literacy (figure 5-11). A higher percentage of parents with *Below Basic* prose literacy than parents with *Intermediate* or *Proficient* prose literacy had done none of these activities during the past year.

Summary

This chapter examined how parents with different literacy levels interacted with the children living in their homes around issues related to literacy and school.¹³ In general, parents with higher literacy did more literacy-related activities with their children and had more educational resources in their home.

Specifically, higher percentages of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy read to their children under

age 8 five or more days a week, and a higher percentage of parents with *Basic* prose literacy than parents with *Below Basic* prose literacy read to their children 5 or more days a week.

Additionally, the percentage of parents with children ages 2 through 17 whose children often saw them reading increased with each increasing prose literacy level. The percentage of adults who lived with children under the age of 18 in homes that had many reading materials also increased with each increasing prose literacy level. At every prose literacy level, more than 90 percent of parents of children ages 2 through 17 said that their children had at least one or two books of their own. However, higher percentages of parents with *Intermediate* or *Proficient* prose literacy

Figure 5-11. Percentage of parents who were involved in one to four activities in their children’s schools, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

¹³ Throughout the chapter, the word *parents* refers to parents, grandparents, or guardians who had a child living with them 10 days a month and that convention is also followed in this summary section.

than parents with *Basic* prose literacy had children who had their own books, and a higher percentage of parents with *Basic* prose literacy than parents with *Below Basic* prose literacy had children who had their own books. The percentages of adults living with children under the age of 18 who had a computer in their home with word processing capability or Internet access increased with each increasing prose literacy level.

A lower percentage of parents with *Below Basic* prose literacy than parents with *Basic*, *Intermediate*, or *Proficient* prose literacy ever talked to their school-age children about things they studied in school.

Conversely, higher percentages of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* or *Below Basic* prose literacy talked to their school-age children every day about things they studied in school.

At every prose literacy level, three-quarters of parents with school-age children helped their children with homework or worked on homework with their children at least occasionally. However, the percentage of parents who never helped or never worked on homework with their children declined with each increasing prose literacy level.

Community and Civic Involvement

The analyses in this chapter examine how adults with different literacy levels participated in government and community affairs by voting, staying informed, and volunteering. The analyses in the chapter also examine the extent to which adults of different literacy levels participated in online communities through sending e-mail and using the Internet to find information.

Voting

Among U.S. citizens of voting age, the percentage of adults who voted in the 2000 presidential election was higher in each literacy level than in the next lower literacy level on the prose and document scales (figure 6-1). Approximately half of adult citizens with *Below Basic* prose and document literacy reported voting in the 2000 presidential election compared with 84 percent of adult citizens with *Proficient* prose and document literacy.

Voting

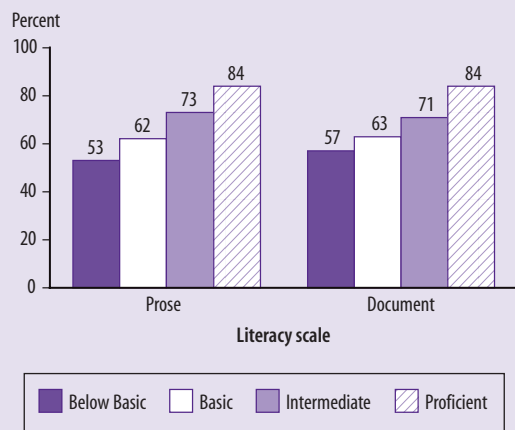
Sources of Information About Current Events, Public Affairs, and the Government

Volunteering

Online Communities

Summary

Figure 6-1. Percentage of adult citizens of voting age who voted in the 2000 presidential election, by prose and document literacy level: 2003



NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Sources of Information About Current Events, Public Affairs, and the Government

Adults can get information about current events, public affairs, and the government from printed and written sources, including newspapers, magazines, books and brochures, and the Internet. They can also get information from nonprint sources, including family, friends, or coworkers and radio and television.

Printed and Written Information

Many adults receive information about current events, public affairs, and the government from traditional printed sources such as newspapers, magazines, books, and brochures. Additionally, over the past decade, the Internet has become an increasingly important source of written information on these topics.

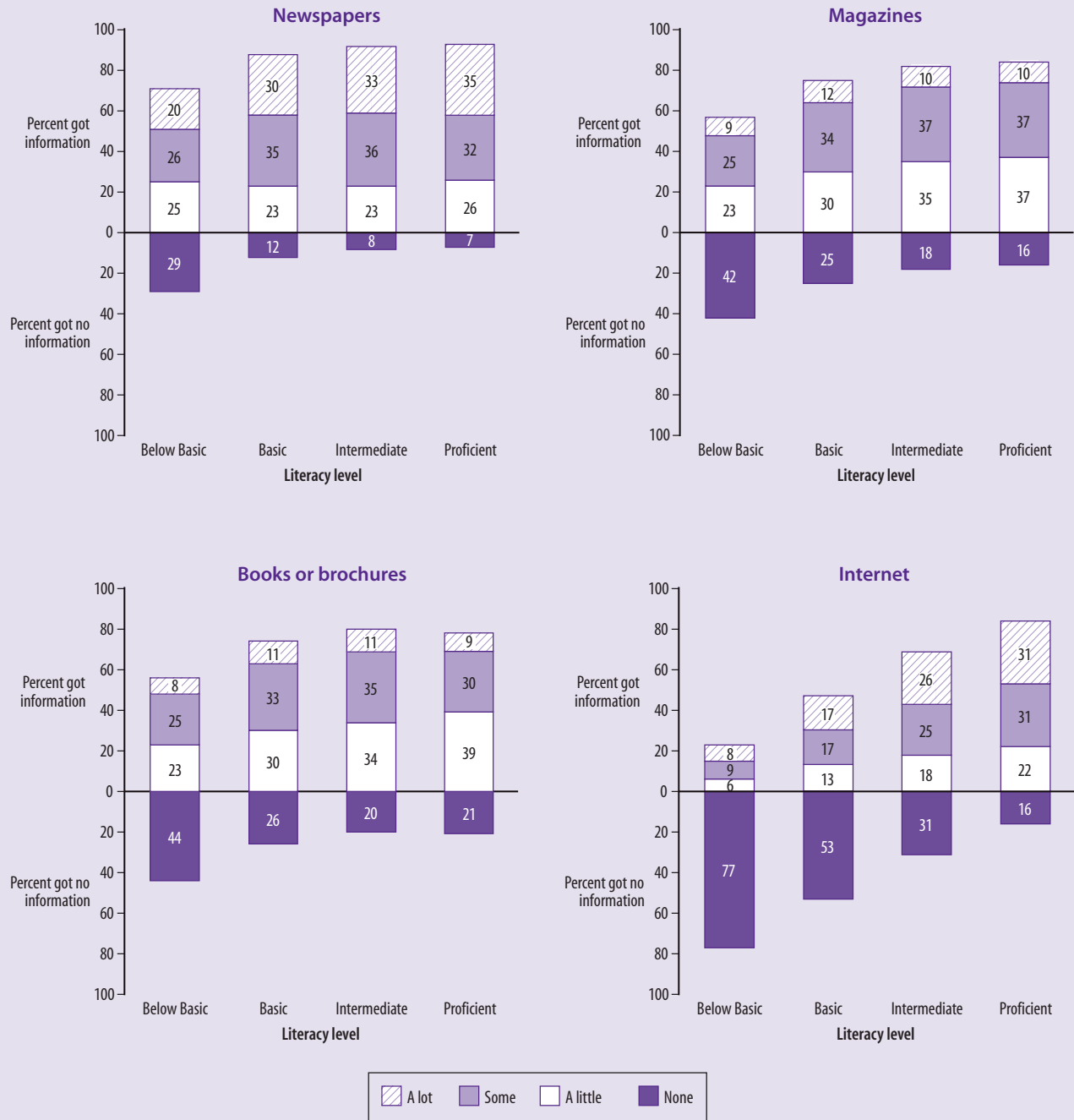
Comparisons across levels. Lower percentages of adults with *Below Basic* prose and document literacy than other adults reported reading any information about current events, public affairs, and the government in newspapers, magazines, books, or brochures or on the Internet¹⁴ (figure 6-2). Twenty-nine percent of adults with *Below Basic* prose literacy reported obtaining no information about current events, public affairs, and the government from newspapers compared with 12 percent of adults with *Basic* prose literacy, 8 percent of adults with *Intermediate* prose literacy, and 7 percent of adults with *Proficient* prose literacy. Seventy-seven percent of adults with *Below Basic* prose literacy reported that they received no information about these topics from the Internet compared with 53 percent of adults with *Basic* prose literacy, 31 percent of adults with *Intermediate* prose literacy, and 16 percent of adults with *Proficient* prose literacy.

Comparisons across sources of written information.

Lower percentages of adults with *Below Basic*, *Basic*, and *Intermediate* prose literacy got information about current events, public affairs, and the government from the Internet than from other written sources. For adults with *Proficient* prose literacy, this gap did not exist; a higher percentage of adults with *Proficient* prose literacy got information about these topics from the Internet than from books or brochures, and there was no measurable difference in the percentages of adults with *Proficient* prose literacy who got information from the Internet and from magazines. Higher percentages of adults at all levels of prose literacy got written information about current events, public affairs, and the government from newspapers than from other written sources.

¹⁴ Document results are in appendix E.

Figure 6-2. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: newspapers, magazines, books or brochures, the Internet, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Nonprint Information

Nonprint sources of information about current events, public affairs, and the government include family, friends, or coworkers and radio and television. A lower percentage of adults with *Below Basic* prose and document literacy than other adults obtained information about these topics from nonprint sources (figure 6-3).¹⁵ Twenty-one percent of adults with *Below Basic* prose literacy reported getting no information about current events, public affairs, and the government from family, friends, or coworkers during the previous year compared with 10 percent of adults with *Basic* prose literacy, 6 percent of adults with *Intermediate* prose literacy, and 4 percent of

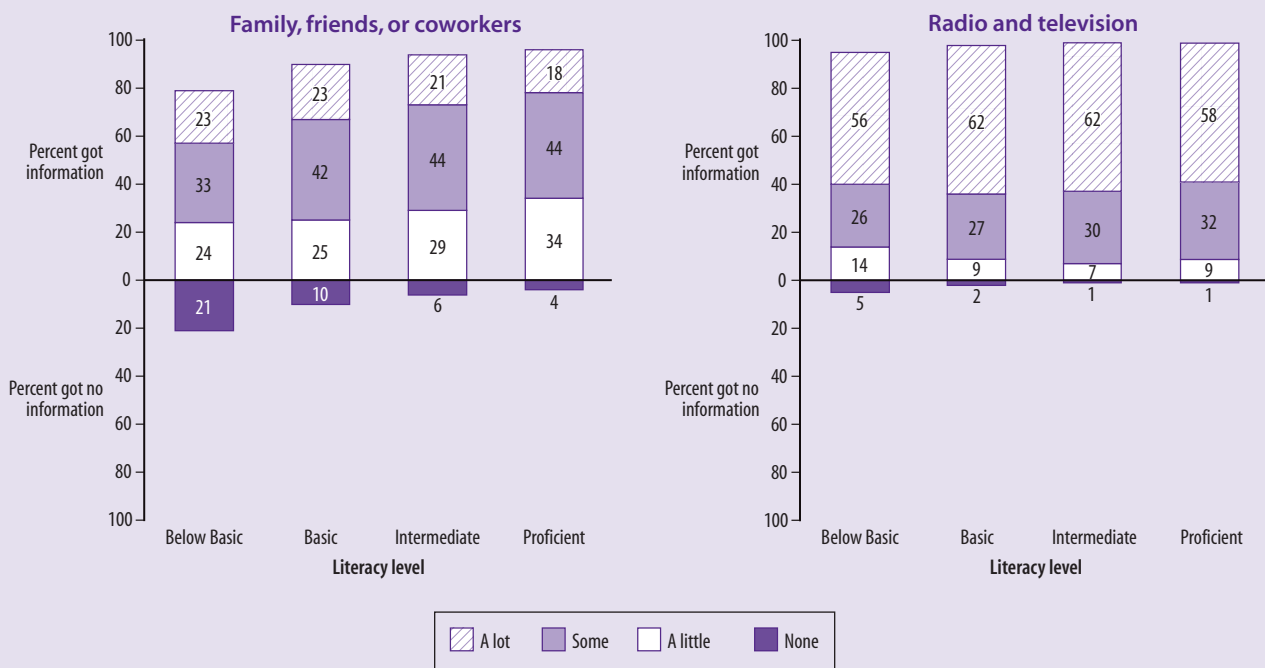
adults with *Proficient* prose literacy. The differences were smaller or not statistically significant among adults at different literacy levels with regard to the amount of information about these topics they got from radio and television.

Volunteering

Volunteering—working in an unpaid capacity for a community group or an organization—is another way adults can participate in civic and community life. Adults may volunteer only occasionally, such as working at a fair in a school or making phone calls to raise funds for a nonprofit group, or they may volunteer regularly, such as coaching a community or church sports team or serving as an unpaid member of the board of a nonprofit organization.

¹⁵ Document results are in appendix C.

Figure 6-3. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: family members, friends, or coworkers, radio and television, by prose literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

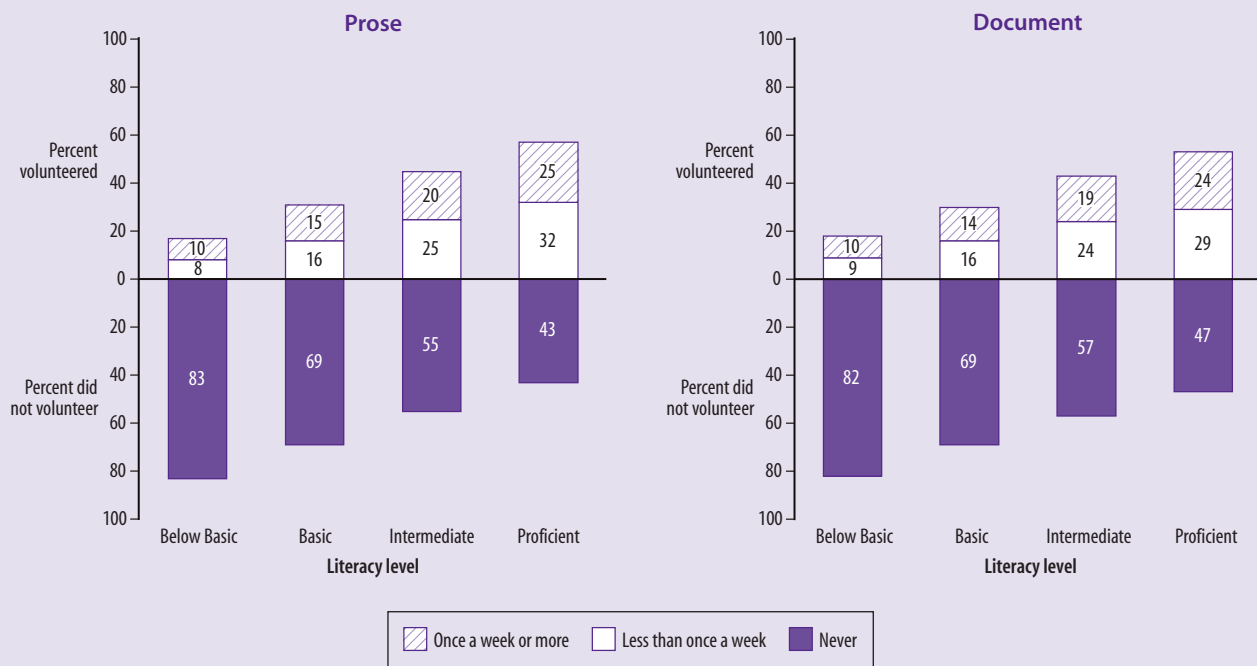
The percentages of adults who volunteered once a week or more were higher in each prose and document literacy level than in the next lower level (figure 6-4). Twenty-five percent of adults with *Proficient* prose literacy reported volunteering once a week or more during the previous year compared with 20 percent of adults with *Intermediate* prose literacy, 15 percent of adults with *Basic* prose literacy, and 10 percent of adults with *Below Basic* prose literacy. Conversely, higher percentages of adults with lower levels of literacy than adults with higher levels of literacy reported that they did not volunteer at all during the previous year. Eighty-three percent of adults with *Below Basic* prose literacy did not volunteer during the previous year compared with 69 percent of adults with *Basic* prose literacy, 55 percent of adults with *Intermediate* prose literacy, and 43 percent of adults with *Proficient* prose literacy.

Online Communities

Communicating with neighbors and other individuals in a community on issues of common interest and concern has traditionally been a key aspect of community involvement. These types of communications have increasingly been conducted on the Internet and through e-mail, making it easier for online communities to develop among people who share common interests and concerns. Higher percentages of adults with high levels of prose and document literacy than adults with lower levels of literacy sent and received e-mail or used the Internet, two activities generally required for participating in online communities (figures 6-5 and 6-6).

Eighty percent of adults with *Below Basic* prose literacy reported that in the year prior to the 2003

Figure 6-4. Percentage of adults who volunteered during the past year, by prose and document literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

assessment, they did not send or receive any e-mail compared with 52 percent of adults with *Basic* prose literacy, 24 percent of adults with *Intermediate* prose literacy, and 8 percent of adults with *Proficient* prose literacy (figure 6-5). Sixty-seven percent of adults with *Proficient* prose literacy reported sending or receiving an e-mail message at least once a day compared with 48 percent of adults with *Intermediate* prose literacy, 24 percent of adults with *Basic* prose literacy, and 8 percent of adults with *Below Basic* prose literacy.

Additionally, lower percentages of adults with low levels of prose and document literacy than adults with higher levels of literacy used the Internet (figures 6-5 and 6-6). Seventy-seven percent of adults with *Below Basic* prose literacy did not use the Internet in the year prior to the 2003 adult literacy assessment compared with 46 percent of adults with

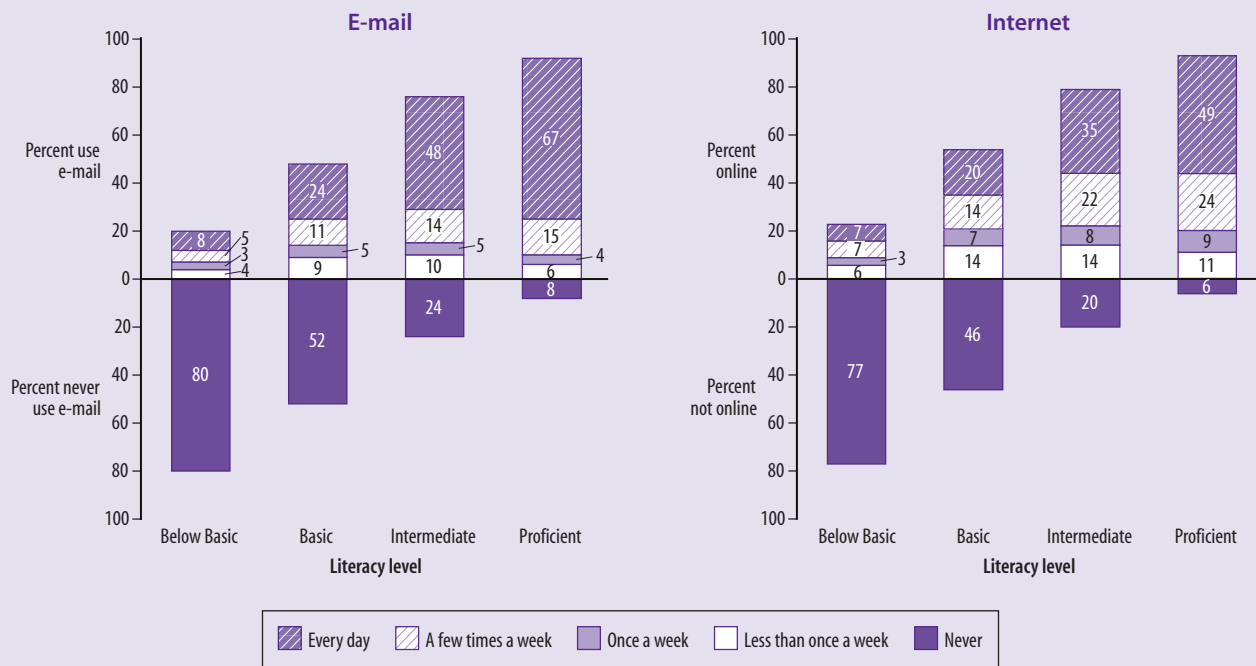
Basic prose literacy, 20 percent of adults with *Intermediate* prose literacy, and 6 percent of adults with *Proficient* prose literacy (figure 6-5). Almost half of adults with *Proficient* prose literacy used the Internet every day in the year prior to the 2003 adult literacy assessment compared with 35 percent of adults with *Intermediate* prose literacy, 20 percent of adults with *Basic* prose literacy, and 7 percent of adults with *Below Basic* prose literacy (figure 6-6).

Summary

This chapter examined how American adults with different levels of prose and document literacy participated in community and civic affairs.

Among U.S. citizens of voting age, the percentage of adults who voted in the 2000 presidential election was higher in each prose and document literacy level than in the next lower level.

Figure 6-5. Percentage of adults who sent or received e-mail messages and found information on the Internet, by prose literacy level: 2003



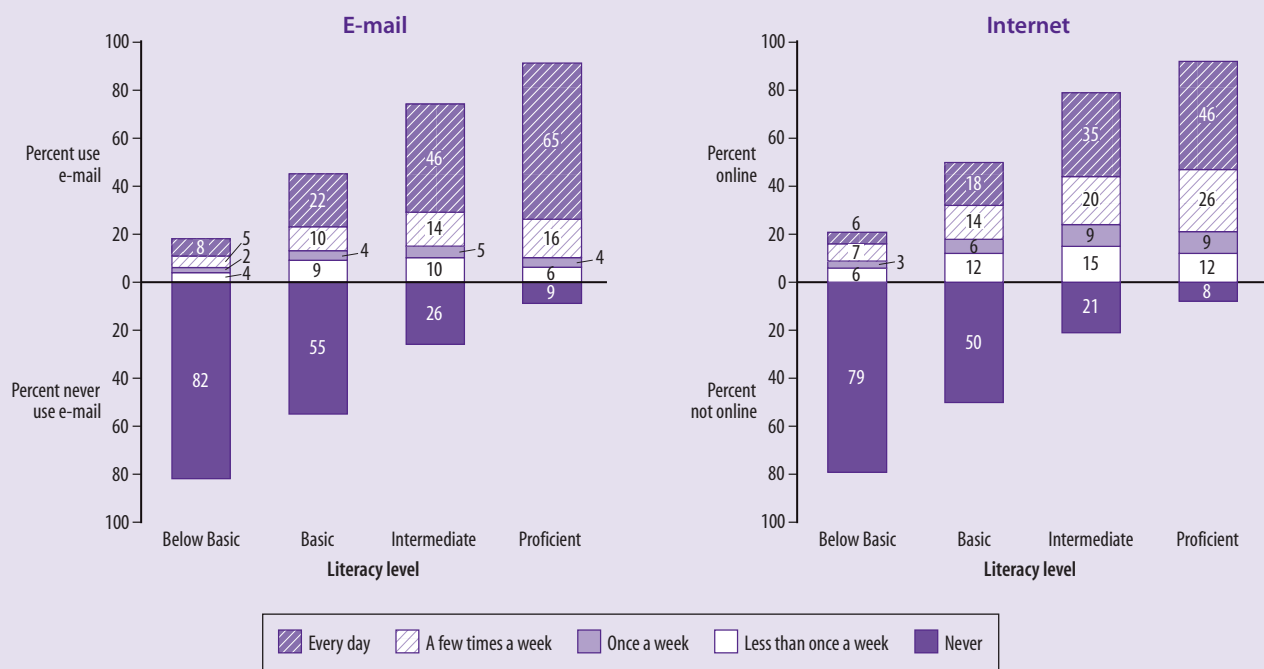
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Lower percentages of adults with low levels of prose and document literacy than adults with higher levels of literacy obtained information about current events, public affairs, and the government from a variety of print and nonprint sources. Lower percentages of adults with *Below Basic* prose and document literacy than other adults reported reading any information about current events, public affairs, and the government in newspapers, magazines, books, or brochures or on the Internet; they were also less likely to obtain information about these topics from nonprint sources, including family members, friends, or coworkers and radio and television. Additionally, lower percentages of adults with *Below Basic*, *Basic*, or *Intermediate* levels of prose literacy got information about current events, public affairs, and the government from the Internet than from other written

sources. There was no measurable differences in the percentages of adults with *Proficient* prose literacy who got information from the Internet and magazines, and a higher percentage of adults with *Proficient* prose literacy got information from the Internet than from books or brochures.

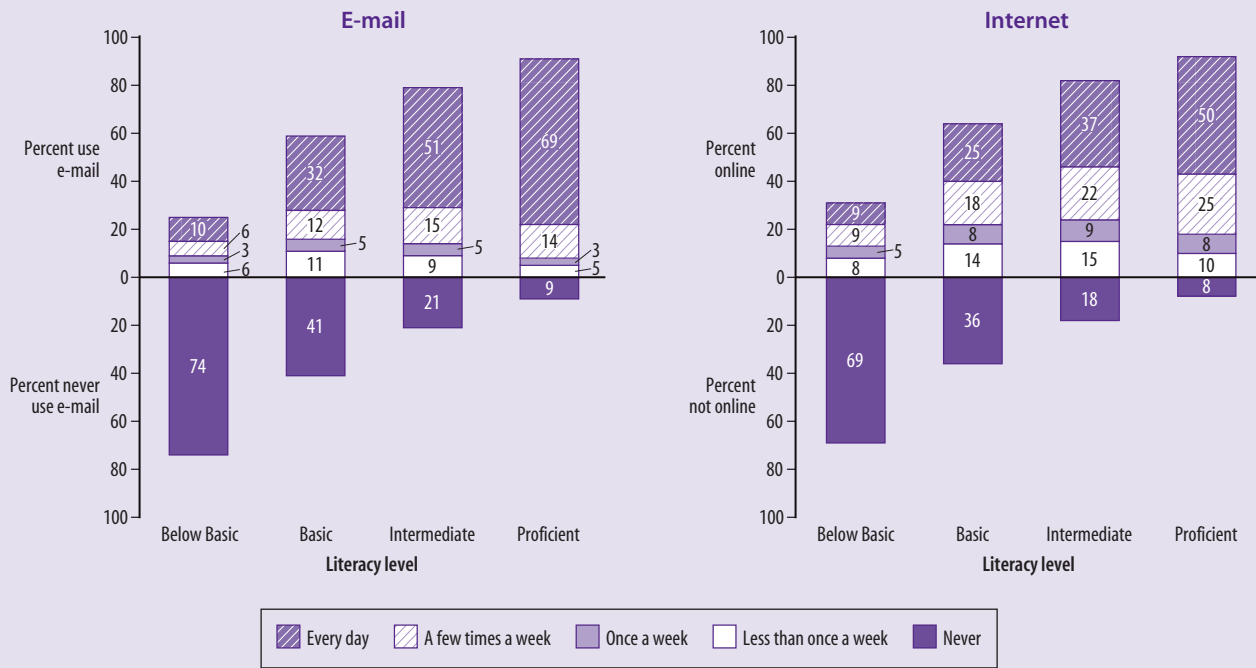
Adults with higher levels of prose and document literacy volunteered more frequently than adults with lower levels of literacy: the percentage of adults who volunteered once a week or more during the previous year was higher at each increasing level of literacy. Adults with higher levels of prose and document literacy were also more likely to send and receive e-mail or use the Internet—two activities generally required for participating in online communities.

Figure 6-6. Percentage of adults who sent or received e-mail messages and found information on the Internet, by document literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Figure 6-7. Percentage of adults who sent or received e-mail messages and found information on the Internet, by quantitative literacy level: 2003



NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Sample Assessment Questions

Respondents who participated in the 2003 assessment were asked to complete prose, document, and quantitative literacy tasks of varying levels of difficulty. The sample questions on the following pages illustrate the types of tasks used to measure the literacy of America's adults. These questions were originally developed for the 1992 survey and reused in 2003.

Consistent with the design of the assessment, each sample question appears before the text or document needed to answer the question. The percentage of respondents who answered the question correctly is reported, as well as the percentage of correct responses for each of the four literacy assessment levels.

More information about the sample assessment questions can be found on the Internet at <http://nces.ed.gov/naal>.

Prose Literacy Question

Refer to the article on the next page to answer the following question.

According to the brochure, why is it difficult for people to know if they have high blood pressure?

Correct answer

Any statement such as the following:
Symptoms are not usually present
High blood pressure is silent

Percentage of adults who answered the question correctly, prose literacy scale: 2003

All Adults	<i>Below Basic</i>	<i>Basic</i>	<i>Intermediate</i>	<i>Proficient</i>
74	11	70	96	100

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

TOO MANY BLACK ADULTS DIE FROM THE EFFECTS OF HIGH BLOOD PRESSURE

DID YOU KNOW?

More than one out of every four Black adults has high blood pressure, according to a two-year survey by Public Health Service in the 1960's. Other studies show as many as one out of three Black adults has high blood pressure.

High blood pressure is the most common chronic disease treated by practitioners in the Black community.

More Black people die as a result of high blood pressure than any other disease.

For every Black person who dies of sickle-cell anemia, at least 100 others die from the effects of high blood pressure.

The rate of death from the effects of high blood pressure for Black people is nearly one and one-half times the rate for White people.

High blood pressure, along with cigarette smoking, contributes greatly to the apparent increased number of heart attacks among Black adults.

If high blood pressure is controlled, strokes, heart attacks and kidney disease can be substantially reduced.

YES, HIGH BLOOD PRESSURE CAN BE TREATED... AND CONTROLLED.

WHAT YOU CAN DO

Have your blood pressure checked regularly

Unfortunately, high blood pressure is a silent killer and crippler. At least half of the people who have high blood pressure don't know it because symptoms usually are not present. The only way you can be sure is to have the doctor check your blood pressure. You should have your blood pressure checked at least once a year, especially if: (1) you are Black, (2) if you are over 40, (3) if members of your family or close relatives have had high blood pressure or the complications of high blood pressure (stroke, heart attack, or kidney disease), or (4) if you have frequent headaches, dizziness, or other symptoms that may occasionally be related to high blood pressure.

Follow your doctor's instructions

High blood pressure can't be cured, but it can be kept under control. Control means keeping your blood pressure as close to normal as possible. That's very important to you — it can prevent a crippling stroke or other serious illness in the future.

The doctor will find a way to control your blood pressure that's most comfortable for you. Then it will be up to you — to take the medicine and follow the prescribed diet, to follow the instructions carefully and to come back regularly for checkups.

Yes, high blood pressure can be controlled, but only if *you* cooperate fully with your doctor.

Prose Literacy Question

Refer to the article on the next page to answer the following question.

What is the purpose of the *Se Habla Español* expo?

Correct answer

Any statement such as the following:

- To enable people to better serve and sell to the Hispanic community
- To improve marketing strategies to the Hispanic community
- To enable people to establish contacts to serve the Hispanic community

Percentage of adults who answered the question correctly, 2003

All Adults	Below Basic	Basic	Intermediate	Proficient
16	#	3	16	60

Rounds to zero.

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

MARKETING

Se Habla Español Hits Chicago

September 25, 26, and 27 are three days that will change your marketing.

"To some advertisers, the Hispanic market's like the weather—you hear a lot about it, but you can't do much about it," says veteran marketer Tony Martinez. "And other companies think Hispanics will buy their products anyway, so they don't need to do anything special.

"Both attitudes are way off base," Mr. Martinez says briskly, "and they'll both make the competition ecstatic. Because there's a lot of money to be made in the Hispanic market. Its spending power will be \$160 billion this year, and that's growing maybe \$1.4 billion a month," he exclaims, peering intensely over his glasses. "For example, we Hispanics buy 9 percent of all new automobiles.

"This is definitely a special market...you do have to have a special understanding of it," Mr. Martinez goes on, "because as one research firm said, it's 'a market with currents that are going in many directions.' But the rewards will be fantastic. Hispanics are very brand conscious and they tend to become brand loyal very quickly."

It's Mr. Martinez's job—his mission in life—to make sure companies learn how they can serve and sell to America's Hispanics. He has been marketing to the community for many years, working with the best in the business, including Coca-Cola and the advertising firm of Castor GS&B. Now his staff is organizing the largest annual Hispanic market trade show in the business—*Se Habla Español*.

The three-day *Se Habla Español* expo, put on by HISPANIC BUSINESS magazine, is in Chicago this year, at the Hyatt Regency. As in the two previous years in New York and Los Angeles, this conference will host a "big top"-like mix of activities.

The show draws thousands of the country's top marketers, media people, advertisers, researchers, and Hispanic contractors—all intent on gathering as much information as possible, and all hoping to explore new business opportunities. As in any really good big-top show, a hundred different things are happening all at once.

More than 60 Hispanic market specialists conduct fact-heavy seminars. Companies promoting everything from cars to demographic information to career opportunities for Hispanic professionals display and discuss their products in 30,000 square feet of exhibit space. Major exhibitors this year include Ford Motor Co., Lincoln-Mercury, Chevrolet, American Airlines, Telemundo, the Bureau of the Census, and many, many more.

"It's all contacts . . . contacts . . . contacts!" Mr. Martinez exclaims in his best marketing ringmaster style.

Each of the major media hosts its own luncheon or reception, playing to sold-out crowds. Leading participants in last year's Print Reception, for example, included *La Opinion* of Los Angeles, *Vista* magazine, *The Miami Herald*, and the *Los Angeles*

Times. Some participants in the 1989 Radio Luncheon included Katz Hispanic Radio and Caballero Spanish Media. "We still have a few events open to corporate sponsors," Mr. Martinez mentions, not without interest. "They'll be able to count on considerable media play both in preliminary press coverage and during the events themselves."

Another opportunity for sponsor visibility is the *Se Habla Español* Scholarship Fund, which will publicly award scholarships to talented Hispanic students in the various communications fields.

A grand finale black tie banquet spotlights the leading figures in America's Hispanic media world, recognizing outstanding work in each medium with the *Se Habla Español Awards in Communication*. In 1989, Mr. Martinez recalls, almost 400 entries were submitted. Publicidad Siboney swept the top honors for "Ad of the Year" and "TV Ad of the Year" with its commercial for Pepsi-Cola.

One problem attendees find is that the conference offers more information than any one person can gather during just three days. "They should know their priorities," Mr. Martinez advises, "to ensure they focus on the events that will be of most value to their employers."

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Document Literacy Question

Seventy-eight percent of what specific group agree that their school does a good job of encouraging parental involvement in educational areas?

Parents and Teachers Evaluate Parental Involvement at Their School

Do you agree or disagree that...?

	Total	Level of School		
		Elementary	Junior High	High School

Our school does a good job of encouraging parental involvement in sports, arts, and other nonsubject areas

Parents	77	76	74	79
Teachers	77	73	77	85

Our school does a good job of encouraging parental involvement in educational areas

Parents	73	82	71	64
Teachers	80	84	78	70

Our school only contacts parents when there is a problem with their child

Parents	55	46	62	63
Teachers	23	18	22	33

Our school does not give parents the opportunity for any meaningful roles

Parents	22	18	22	28
Teachers	8	8	12	7

Source: The Metropolitan Life Survey of the American Teacher, 1987

Reduced from original copy

Correct answer

Junior high teachers

Percentage of adults who answered the question correctly, 2003

All Adults	Below Basic	Basic	Intermediate	Proficient
36	#	4	47	98

Rounds to zero.


NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Quantitative Literacy Question

Suppose that you had your oil tank filled with 140.0 gallons of oil, as indicated on the bill, and you wanted to take advantage of the five cents (\$.05) per gallon deduction.

- Figure out how much the deduction would be if you paid the bill within 10 days. Enter the amount of the deduction on the bill in the space provided.

		ASHLAND OIL, INC.		18609			
Ashland, Kentucky		41114 (606) 392-3333		DATE		2/2/02	
ROBERT NELSON		DIVERTY ROAD		CUSTOMER NO.		002316	
ASHLAND, KY 41114		P/R 4TH HOUSE ON LEFT					
FILL REAR IN DRIVEWAY							
TANK SIZE	GALLONS	ZONE	STOP LOC.	DELIVERY TYPE	DEGREE DAYS	K. FACTOR	PRODUCT CODE
275	180	28	0	AU HO	3247	8.30	2
CUSTOMER'S SIGNATURE							
						<i>RD 8705</i>	
						TANK TRUCK SALESMAN TRUCK NO.	
METER READING – BEFORE AND AFTER DELIVERY							
▼							
A A 0 0 3				0 0 1 4 0 ⁰			
A A 0 0 2				0 0 0 0 0 ⁰			
PRODUCT	PRICE	GALLONS	10TH	AMOUNT			
FUEL OIL	97.9	140	0	137	06		
SAVE if no outstanding balance due and you pay within 10 days				DEDUCT \$.05 per gal.			
				NET TOTAL ↓			
WEMOFORMS • (800) 221-1209 • (201) 636-0080							

Reduced from original copy

Correct answer

\$7.00

Percentage of adults who answered the question correctly, 2003

All Adults	Below Basic	Basic	Intermediate	Proficient
52	1	40	92	100

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Document and Quantitative Literacy Questions

This is an example of a task that was scored in three separate parts and treated as three separate questions. The first two questions were included on the document scale and the third question was included on the quantitative scale.

Refer to the form on the next page to answer the following question.

Use the following information to fill in the receipt for certified mail. Then fill in the “TOTAL Postage and Fees” line.

- You are sending a package to Doris Carter.
- Her address is 19 Main Street, Augusta, GA 30901.
- The postage for the package is \$1.86.
- The fee for certified mail is \$0.75.

Correct answer

Question 1 (Document): Enters name and address correctly. No penalty for misspelling.

Percentage of adults who answered the question correctly, 2003

All Adults	<i>Below Basic</i>	<i>Basic</i>	<i>Intermediate</i>	<i>Proficient</i>
65	8	54	86	97

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Correct answer

Question 2 (Document): Enters \$1.86 and \$0.75 on the postage and certified fees lines respectively.

Percentage of adults who answered the question correctly, 2003

All Adults	<i>Below Basic</i>	<i>Basic</i>	<i>Intermediate</i>	<i>Proficient</i>
76	13	73	96	100

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Correct answer

Question 3 (Quantitative): Either of the following:

Correctly totals postage and fees: \$2.61

Correctly totals incorrect fees entered on form

Percentage of adults who answered the question correctly, 2003

All Adults	<i>Below Basic</i>	<i>Basic</i>	<i>Intermediate</i>	<i>Proficient</i>
78	33	88	96	99

NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from these data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

What may be Certified?

Only items of no intrinsic value such as letters, files, records, etc., that are sent Priority First-Class Mail may be sent by certified mail. No insurance coverage is provided against loss or damage for this service. (For valuables and irreplaceable items, you should use insured or registered mail.)



How to use Certified Mail.

Simply fill out Form 3800, *Receipt for Certified Mail*, and attach (to the address side of the mail) the numbered label portion and the required postage and fee. You may obtain these forms at post offices or from rural carriers. Many customers find it convenient and a “time-saver” to have the form completed before approaching the window. Certified mail, with proper postage and fees affixed, may be dropped in a mailbox unless an official dated receipt is required.

Restricted Delivery

If you want to restrict the delivery of certified mail, you must endorse the mail “Restricted Delivery.” This service is available for a \$1.00 fee and can only be used for items addressed to specific individuals by name. However, the addressee can and often does authorize an agent to receive his or her restricted mail.

Fees

The fee for certified mail is 75 cents (in addition to your postage). For an additional fee, you also may purchase a return receipt which provides you proof of delivery.

P 138 573 931

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS FORM 3800, June 1985

Fold at line over top of envelope to the right of the return address.

CERTIFIED

P 138 573 931

MAIL

Definitions of All Subpopulations and Background Variables Reported

Some background variables were included in the analyses in more than one chapter. Those variables are listed under the chapter where they first appeared. For the exact wording of background questions, see <http://nces.ed.gov/naal>.

Chapter 2

Total Population

The 2003 National Assessment of Adult Literacy included two samples: (1) adults ages 16 and older living in households and (2) inmates ages 16 and older in federal and state prisons. The household sample also included adults in six states that chose to participate in a concurrent State Assessment of Adult Literacy: Kentucky, Maryland, Massachusetts, Missouri, Oklahoma, and New York. Each sample was weighted to represent its share of the total population of the United States (99 percent for the household sample and 1 percent for the prison sample). The household and prison samples were combined to create a nationally representative sample of America's adults. Household data collection was conducted from March 2003 through February 2004; prison data collection was conducted from March through July 2004.

Gender

Interviewers recorded the gender of each respondent.

Race and Ethnicity

In 2003, all respondents were asked two or three questions about their race and ethnicity. The first question asked them to indicate whether they were Hispanic or Latino.

If a respondent answered that he or she was Hispanic or Latino, the respondent was asked to choose one or more of the following groups to describe his or her Hispanic origin:

- Mexican, Mexican American, or Chicano
- Puerto Rican or Puerto Rican American
- Cuban or Cuban American
- Central or South American
- Other Hispanic or Latino background

Respondents who identified more than one of the groups to describe their Hispanic origin were classified as “Other Hispanic or Latino background.”

Then, all respondents, including those who indicated they were Hispanic or Latino, were asked to choose one or more of the following groups to describe themselves:

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander

Individuals who responded yes to the first question were coded as Hispanic, regardless of their answer to the second question. Individuals who identified more than one group on the second question were coded as Multiracial. Respondents of Native

Hawaiian or Pacific Islander origin were grouped with those of Asian origin. The White, Black, and Hispanic groups are reported separately. The interviewer recorded the race/ethnicity of respondents who refused to answer the question.

In 1992, the race and ethnicity questions were somewhat different. Respondents were first asked to choose one race from among the following:

- White
- Black (African American)
- American Indian
- Alaska Native
- Asian
- Other

They were then asked whether they were of Spanish or Hispanic origin or descent. If they indicated they were, they were asked to choose from among the same groups as on the 2003 survey to describe their Hispanic ethnicity.

Because respondents in 2003 were not offered an “other” category to describe their race and respondents in 1992 were limited to choosing one race, caution should be exercised when comparing 1992 and 2003 results.

Language Spoken Before Starting School

All respondents were asked what language or languages they learned to speak before starting school. Their responses were then used to divide respondents into five groups: English only, English and Spanish, English and other language, Spanish only, Other language(s). The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages.

Age Learned English

Respondents who spoke a language other than English before starting school were asked their age when they learned to speak English. They were classified into one of the following categories: 10 or younger, 11 to 15, 16 to 20, 21 or older.

Age

All respondents were asked to report their birthdates, and this information was used to calculate their age. Age groups reported are 16 to 18, 19 to 24, 25 to 39, 40 to 49, 50 to 64, and 65 and older. Age groups were selected to correspond to key life stages of many adults:

16–18: Completion of secondary education

19–24: College or job training

25–39: Early career

40–49: Mid career

50–64: Late career

65 and older: Retirement

Learning Disability

Adults were asked if they had ever been diagnosed or identified as having a learning disability.

Household Income

Respondents were asked to provide their family's total income from all sources, including jobs, investments, Social Security or retirement, and public assistance. Household income categories were developed based on the income categories used by the U.S. Census and were combined as needed to reflect the NAAL's sample size. Respondents were coded into the following household income categories: less than \$10,000, \$10,000–\$14,999, \$15,000–\$19,999, \$20,000–\$29,999, \$30,000–\$39,999, \$40,000–\$59,999, \$60,000–\$99,999, \$100,000 or greater.

Chapter 3

Highest Educational Attainment

All respondents were asked to indicate the highest level of education they had completed. The following options were provided:

- Still in high school
- Less than high school
- Some high school
- GED or high school equivalency
- High school graduate
- Vocational, trade, or business school after high school
- College: less than 2 years
- College: Associate's degree (A.A.)
- College: 2 or more years, no degree
- College graduate (B.A. or B.S.)
- Postgraduate, no degree
- Postgraduate degree (M.S., M.A., Ph.D., M.D., etc.)

Respondents who reported less than high school or some high school were asked how many years of education they had completed. For certain analyses, some of these groups were collapsed. For example, respondents who had completed postgraduate studies but had not received a degree were generally combined with those who had completed a postgraduate degree.

Age Obtained High School Diploma/GED

Respondents were asked to provide the year they graduated high school or obtained their GED. Their age was calculated on the basis of their birthday and the assumption that they obtained their degree in June. Respondents were grouped into the following categories: 19 or younger, 20 to 24, 25 or older, did not graduate.

Year Obtained College Degree

Respondents were asked what year they graduated college. Responses were coded into the following categories: 1997 or later, 1992–96, 1977–91, 1962–76, 1961 or earlier.

Participation in English as a Second Language Instruction

Respondents who spoke a language other than English before starting school were asked whether they were currently enrolled in or had ever taken part in an English as a Second Language class in the United States. Respondents were then asked how long ago they last took a class to improve their English: within the last two years, 2 to 5 years ago, more than 5 years ago, currently taking an English as a Second Language class.

Information Technology (IT) Certification

All respondents were asked whether they had received any type of information technology skill certification sponsored by a hardware or software manufacturer or an industry or professional association and whether they had passed a test to get the certification. Those who answered yes to both questions were counted as receiving IT certification.

Chapter 4

Labor Force Participation

Household respondents were asked to report what they were doing during the week before the assessment was administered:

1. working a full-time job for pay or profit (35 hours or more)
2. working for pay or profit part-time (1 to 34 hours)

3. working two or more part-time jobs for pay, totaling 35 or more hours
4. unemployed, laid off, or looking for work
5. with a job but not at work because of temporary illness, vacation, or work stoppage
6. with a job but on family leave (maternity or paternity leave)
7. in school
8. keeping house
9. retired
10. doing volunteer work

For analysis, respondents were divided into four groups: adults working full-time (or working two or more part-time jobs); those working part-time; those unemployed, laid off, or looking for work; those out of the labor force. Adults in categories 1 and 2 were counted as being employed full-time; those in category 3 were counted as being employed part-time; those in category 4 were counted as unemployed; those in categories 5 and 6 were counted as not at work (and therefore omitted from the analyses of labor force participation); and those in categories 7 through 10 were counted as being out of the labor force. Adults in categories 5 and 6 (temporarily not at work) could not be coded into one of the employment categories because they were not asked if they usually worked full-time or part-time. Respondents could pick as many responses as were applicable, but they were coded for analysis on the basis of the response highest in the list (e.g., if they said they were working full-time and also doing volunteer work, they were coded as working full-time; if they said they were unemployed, laid off, or looking for work and also keeping house, they were coded as unemployed).

Occupation

Respondents who had held a job within the past 3 years were asked to provide the title of their occu-

pation and its most important activities and duties. This information was used to assign each occupation a 2000 Census Bureau code. The occupations were then collapsed into eight major occupational groups:

- Management, business, and financial
- Professional and related
- Service
- Sales and related
- Office and administrative support
- Construction and extraction
- Installation, maintenance, and repair
- Production

The occupational classification system used by the Census Bureau and other government agencies underwent substantial changes with the introduction of the 2000 Standard Occupational Classification (SOC). Therefore, the 1992 occupational codes/groups could not be directly compared with the 2003 occupations/groups. The Census Bureau developed a crosswalk as a way to connect the 1992 and 2003 occupational codes. This crosswalk provides the percentage of people in a 1992 occupation that would be redistributed to various 2003 occupations. For example, 73 percent of the 1992 occupation “Library clerks” would be reclassified in 2003 as “Library Technicians” while 27 percent would be coded into “Library assistants, clerical.”

Two steps were used to code the 1992 occupations into the 10 occupational groups used for the 2003 data. First, occupations that were at least 90 percent comparable according to the crosswalk were directly coded into the 2003 occupational group. Second, if fewer than 90 percent of the people in a 1992 occupation could be categorized into a single 2003 occupational group, then individuals in that occupation were randomly assigned to groups according to the percentages provided in the crosswalk. For

example, for the 1992 occupational group “Insurance adjusters, examiners, and investigators,” 76 percent were classified in 2003 as “Claims adjusters, appraisers, examiners, and investigators” while 24 percent were classified as “Insurance claims and policy processing clerks.” Therefore, the same percentages of the 1992 respondents in this occupation were randomly assigned into two different occupational groups: “Management, business, and financial,” which includes claims adjusters, and “Office and administrative support,” which contains insurance claims clerks.

Weekly Wage or Salary

Respondents who were employed were asked to report their gross weekly wage or salary (before deductions) during the previous week. Some respondents were unable to report their weekly wage or salary before deductions. In these cases, the interviewers asked them to report their take-home pay and noted that fact. Some respondents reported their pay per hour, day, 2-week period, month, or year, rather than per week as requested. This was also noted by the interviewers, who asked a follow-up question to clarify the time frame the respondents were using.

All reported pay was adjusted to approximate gross weekly wages or salaries. For respondents who reported their earnings in units other than weekly (e.g., per hour or per day), information on the number of hours worked per week (collected in a separate question) was used to compute weekly earnings. For respondents who reported take-home pay rather than gross pay, adjustments were made to the wage or salary they reported by adding a FICA adjustment at a flat rate of 7.65 percent and an additional adjustment based on IRS withholding tables for single taxpayers in 2003. An additional 10 percent was added as a proxy for state taxes and miscellaneous deductions.

Extent to Which Reading, Mathematics, and Computer Skills Limit Job Opportunities

Respondents were asked in separate questions how much they thought their reading, mathematics, and computer skills limited their job opportunities—for example, to get a promotion or a (different) job they would like to have. They could respond with a lot, some, a little, or not at all.

Participation in Public Assistance

Respondents were asked whether they or anyone in their household had received Temporary Assistance for Needy Families (TANF), public assistance, or public welfare payments from the state or local welfare office during the previous 12 months or whether they had ever received public assistance in the past. Respondents were identified as never, past, or current participants in welfare.

Time Receiving Public Assistance

Respondents were asked about how long, in total, they had received welfare payments in their lifetime: less than 6 months, 6 months to 1 year, more than 1 year but less than 2 years, 2 to 3 years, more than 3 years.

Participation in Reading-, Mathematics-, and Computer-Related Job Training

Respondents were asked in separate questions whether during the past year they had participated in any training or education, including courses, workshops, formal on-the-job training, or apprenticeships, intended to improve their English reading skills, arithmetic or mathematics skills, or computer skills.

Chapter 5

All respondents were asked how many children under 18 had lived in their household for 10 or more days during the past month. Those respondents who

indicated that children had lived in their household were asked how they were related to each of the children. Their responses to these two questions were used to target the family literacy questions to adults with children of the appropriate ages.

Reading to or with Children

Respondents with a child or grandchild living in their home who was under the age of 8 were asked whether or not they had read to the child during the past week. If they answered yes, they were asked to indicate how often they had read to the child: every day, 5 or 6 days, 3 or 4 days, 1 or 2 days.

Teaching Children the Letters of the Alphabet/Child Already Knows Alphabet

Respondents with a child or grandchild living in their house who was under the age of 8 were asked how often they tried to teach their child the letters of the alphabet: every day, a few times a week, once a week, less than once a week, never, or child (children/grandchild/grandchildren) already knows the letters of the alphabet. Results are presented in this report for parents with children ages 3 through 5.

Teaching Children to Read Words

Respondents with a child or grandchild living in their house who was under the age of 8 were asked how often they pointed out words to their child and asked him or her what they said: every day, a few times a week, once a week, less than once a week, never, and child (children/grandchild/grandchildren) already reads well.

Rhyming Activities

Respondents with a child or grandchild living in their house who was under the age of 8 were asked how often they sang songs, recited poems or nursery rhymes, or engaged in other activities that included

rhyiming words with their child: every day, a few times a week, once a week, less than once a week, never.

Talking About School

Respondents with a child or grandchild living in their house who was 5 or older were asked how often during a typical school month they talked to the child about things he or she studied in school: every day, a few times a week, once a week, less than once a week, never.

Helping or Working with Children on Homework

Respondents with a child or grandchild living in their house who was 5 or older were asked how often during a typical school month they helped or worked with the child on homework: every day, a few times a week, once a week, less than once a week, never.

Reading Materials in the Home

Respondents were asked two true or false questions about reading materials at home: whether they had 25 books or more at home at the time of interview and whether there was a variety of magazines and other reading materials at home. Respondents who answered true to both questions were classified as having many reading materials at home; those who answered true to one of the questions were classified as having some reading materials; and those who answered false to both questions were classified as having no reading materials at home.

Child Sees Adults Reading

Respondents were asked a true or false question about whether their child (children/grandchild/grandchildren) over age 2 living in the household often saw them read.

Child Has Own Books

Respondents were asked a true or false question about whether their child (children/grandchild/grandchildren) over age 2 living in the household had his or her own books.

Computer with Word Processor in Home

Respondents were asked how many computers they had at home that could be used for word processing. They were classified as having at least one computer that could be used for word processing or having no computers that could be used for word processing.

Computer with Internet Access

Respondents were asked how many computers they had at home that could access the Internet or World Wide Web. They were classified as having at least one computer that could access the Internet or having no computers that could access the Internet.

School Involvement

Respondents were asked four questions to indicate the number of different types of activities they were involved in at their child's or grandchild's school. They were asked whether during the past year they had done the following:

- Volunteered to help out at their child's (one of their children's/grandchild/grandchildren) school(s), including in the classroom, on a field trip, or at school event such as a party or school fair?
- Gone to a PTA or other type of parent meeting at their child's (one of their children's/grandchild/grandchildren) school(s)?
- Spoken individually with their child's (one of their children's/grandchild/grandchildren) teacher(s) to see how he or she was doing in school?

- Sent food, or other items to share in their child's (one of their children's/grandchild/grandchildren) classroom(s)?

Respondents were grouped according to the number of questions that they answered "yes" as none, one, two, three, or four.

Chapter 6

Voting

All respondents who either were born in the United States or indicated in response to a separate question (that was asked only of people not born in the United States) that they were citizens of the United States were asked whether they remembered whether or not they voted in the 2000 presidential election. If they said they remembered whether or not they voted in the election, they were asked whether they voted. Respondents who did not remember whether they voted were treated as missing data for this question.

Sources of Information About Current Events, Public Affairs, and the Government

Respondents were asked how much information about current events, public affairs, and the government they usually got from each of the following sources: newspapers, magazines, the Internet, radio and television, books or brochures, and family members, friends, or coworkers. They were given the following response options: a lot, some, a little, none.

Volunteering

Respondents were asked whether they gave any unpaid time as a volunteer to a group or an organization during the past year.

Online Communities

Respondents were asked about how often they sent or received an e-mail message and found information on the Internet. They were given the following response options: every day, a few times a week, once a week, less than once a week, never.

Technical Notes

This appendix describes the sampling, data collection, weighting and variance estimation, scaling, and statistical testing procedures used to collect and analyze the data for the 2003 National Assessment of Adult Literacy (NAAL). Household data collection was conducted from March 2003 through February 2004; prison data collection was conducted from March through July 2004.

Sampling

The 2003 National Assessment of Adult Literacy included two samples: (1) adults ages 16 and older living in households (99 percent of the sample weighted) and (2) inmates ages 16 and older in federal and state prisons (1 percent of the sample weighted). Each sample was weighted to represent its share of the total population of the United States, and the samples were combined for reporting.

Household Sample

The 2003 National Assessment of Adult Literacy household sample included a nationally representative probability sample of 35,365 households. The household sample was selected on the basis of a four-stage, stratified area sample: (1) primary sampling units (PSUs) consisting of counties or groups of contiguous counties; (2) secondary sampling units (referred to as segments) consisting of area blocks; (3) housing units containing households; and (4) eligible persons within households. Person-level data were collected through a screener,

a background questionnaire, the literacy assessment, and the oral module. Of the 35,365 sampled households, 4,671 were either vacant or not a dwelling unit, resulting in a sample of 30,694 households.¹ A total of 25,123 households completed the screener, which was used to select survey respondents. The final screener response rate was 81.2 percent weighted.

On the basis of the screener data, 23,732 respondents ages 16 and older were selected to complete the background questionnaire and the assessment; 18,186 actually completed the background questionnaire. Of the 5,546 respondents who did not complete the background questionnaire, 355 were unable to do so because of a literacy-related barrier, either the inability to communicate in English or Spanish (the two languages in which the background questionnaire was administered) or a mental disability.

The final response rate for the background questionnaire, which included respondents who completed the background questionnaire and respondents who were unable to complete the background questionnaire because of language problems or a mental disability, was 76.6 percent weighted. Of the 18,186 adults ages 16 and older who completed the background questionnaire, 17,178 completed at least one question on each of the three scales—prose, document, and quantitative—measured in the adult literacy assessment. An additional 149 were unable to answer at least one question on each of the three scales for literacy-related reasons.² The final response rate for the literacy assessment, which included

respondents who answered at least one question on each scale plus the 149 respondents who were unable to do so because of language problems or a mental disability, was 96.6 percent weighted.

Cases were considered complete if the respondent completed the background questionnaire and at least one question on each of the three scales or if the respondent was unable to answer any questions because of language issues (an inability to communicate in English or Spanish) or a mental disability. All other cases that did not include a complete screener, a background questionnaire, and responses to at least one question on each of the three literacy scales were considered incomplete or missing. Before imputation, the overall response rate for the household sample was 60.1 percent weighted.

For respondents who did not complete any literacy tasks on any scale, no information is available about their performance on the literacy scale they were missing. Completely omitting these individuals from the analyses would have resulted in unknown biases in estimates of the literacy skills of the national population because refusals cannot be assumed to have occurred randomly. For 859 respondents³ who answered the background questionnaire but refused to complete the assessment for reasons other than language issues or a mental disability, regression-based imputation procedures were applied to impute responses to one assessment item on each scale by using the NAAL background data on age, gender, race/ethnicity, education level, country of birth, census region, and metropolitan statistical area status.

On the prose and quantitative scales, a response was imputed for the easiest task on each scale. On the

¹To increase the number of Black and Hispanic adults in the NAAL sample, segments with moderate to high concentrations of Black and Hispanic adults were given a higher selection probability. Segments in which Blacks or Hispanics accounted for 25 percent or more of the population were oversampled at a rate up to three times that of the remainder of the segments.

² Of the 149 respondents who were unable to answer at least one question on each of the three scales for literacy-related reasons, 65 respondents answered at least one question on one scale. The remaining 84 respondents did not answer any questions on any scale.

³ Of the 18,186 household respondents who completed the background questionnaire, 17,178 completed at least one question on each of the three scales and 149 were unable to answer at least one question on one or more of the scales for literacy-related reasons. The remaining 859 respondents completed the background questionnaire but refused to complete the assessment.

document scale, a response was imputed for the second easiest task because that task was also included on the health literacy scale. In each of the logistic regression models, the estimated regression coefficients were used to predict missing values of the item to be imputed. For each nonrespondent, the probability of answering the item correctly was computed and then compared with a randomly generated number between 0 and 1. If the probability of getting a correct answer was greater than the random number, the imputed value for the item was 1 (correct). Otherwise it was 0 (wrong). In addition, a wrong response on each scale was imputed for 65 respondents who started to answer the assessment but were unable to answer at least one question on each scale because of language issues or a mental disability.⁴

The final household reporting sample—including the imputed cases—consisted of 18,102 respondents. These 18,102 respondents are the 17,178 respondents who completed the background questionnaire and the assessment, plus the 859 respondents who completed the background questionnaire but refused to do the assessment for non-literacy-related reasons and have imputed responses to one item on each scale, plus the 65 respondents who started to answer the assessment items but were unable to answer at least one question on each scale because of language issues or a mental disability. After including the cases for which responses to the assessment questions were imputed, the weighted response rate for the household sample was 62.1 percent (18,102 cases with complete or imputed data and an additional 439 cases that had no assessment data because of language issues or a mental disability).⁵

⁴For a more detailed discussion of imputation see Little and Rubin (2002).

⁵The 439 cases that had no assessment data because of language issues or a mental disability include the 355 respondents who were unable to complete the background questionnaire for one of these reasons, plus the 84 respondents who did not answer any questions on any scale because of language issues or a mental disability.

The household sample was subject to unit nonresponse from the screener, background questionnaire, literacy assessment, and oral module and to item nonresponse to background questionnaire items. Although all background questionnaire items had response rates of more than 85 percent, two stages of data collection—the screener and the background questionnaire—had unit response rates below 85 percent and thus required an analysis of the potential for nonresponse bias.

Table C-1 presents a summary of the household response rate.

Table C-1. Weighted and unweighted household response rate, by survey component: 2003

Survey component	Weighted Response rate (percent)	Unweighted Response rate (percent)
Screener	81.2	81.8
Background questionnaire	76.6	78.1
Literacy assessment	96.6	97.2
Overall response rate before imputation	60.1	62.1
Overall response rate after imputation	62.1	63.9

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Prison Sample

The 2003 assessment also included a nationally representative probability sample of inmates in federal and state prisons. A total of 114 prisons were selected to participate in the adult literacy assessment. Of these 114 prisons, 107 agreed to participate, 3 refused, and 4 were ineligible. The final prison response rate was 97.3 percent weighted. From among the inmates in those prisons, 1,298 inmates ages 16 and older were randomly selected to complete the background questionnaire and assessment. Of those 1,298 selected inmates, 1,161 completed the background questionnaire. Of the 137 who did not complete the background questionnaire, 12 were unable to do so because of a literacy-related barrier, either the inability

ity to communicate in English or Spanish (the two languages in which the background questionnaire was administered) or a mental disability.

The final response rate for the prison background questionnaire, which included respondents who completed the background questionnaire and respondents who were unable to complete the background questionnaire because of language problems or a mental disability, was 90.6 percent weighted. Of the 1,161 inmates who completed the background questionnaire, 1,125 completed at least one question on each of the three scales—prose, document, and quantitative—measured in the adult literacy assessment. An additional 8 were unable to answer at least one question on each of the three scales for literacy-related reasons. The final response rate for the literacy assessment, which included respondents who answered at least one question on each scale or were unable to do so because of language problems or a mental disability, was 98.9 percent weighted.

The same definition of a complete case used for the household sample was also used for the prison sample, and the same rules were followed for imputation. Before imputation, the final response rate for the prison sample was 87.2 percent weighted.

One response on each scale was imputed on the basis of background characteristics for 28 inmates who completed the background questionnaire but had incomplete or missing assessments for reasons that were not literacy related. The statistical imputation procedures were the same as for the household sample. The background characteristics used for the missing data imputation for the prison sample were prison security level, region of country/prison type, age, gender, educational attainment, country of birth, race/ethnicity, and marital status. A wrong response on each scale was imputed for the 3 inmates who started to answer the assessment but were unable to answer at least one question on each scale because of language issues or a mental disability. The final prison

reporting sample—including the imputed cases—consisted of 1,156 respondents. After the cases for which responses to the assessment questions were imputed were included, the weighted response rate for the prison sample was 88.3 percent (1,156 cases with complete or imputed data and an additional 17 cases that had no assessment data because of language issues or a mental disability).

Table C-2 presents a summary of the prison response rate.

Table C-2. Weighted and unweighted prison response rate, by survey component: 2003

Survey component	Weighted Response rate (percent)	Unweighted Response rate (percent)
Prison	97.3	97.3
Background questionnaire	90.6	90.4
Literacy assessment	98.9	98.8
Overall response rate before imputation	87.2	86.8
Overall response rate after imputation	88.3	87.9

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Nonresponse Bias

NCES statistical standards require a nonresponse bias analysis when the unit response rate for a sample is less than 85 percent. The nonresponse bias analysis of the household sample revealed differences in the background characteristics of respondents who participated in the assessment compared with those who refused.

In bivariate unit-level analyses at the screener and background questionnaire stages, estimated percentages for respondents were compared with those for the total eligible sample to identify any potential bias owing to nonresponse. Although some statistically significant differences existed, the potential for bias was small because the absolute difference between estimated percentages was less than 2 percent for all domains considered. Multivariate analyses were con-

ducted to further explore the potential for nonresponse bias by identifying the domains with the most differential response rates. These analyses revealed that the lowest response rates for the screener were among dwelling units in segments with high median income, small average household size, and a large proportion of renters. The lowest response rates for the background questionnaire were among males ages 30 and older in segments with high median income. However, the variables used to define these areas and other pockets with low response rates were used in weighting adjustments. The analysis showed that weighting adjustments was highly effective in reducing the bias. The general conclusion was that the potential amount of nonresponse bias attributable to unit nonresponse at the screener and background questionnaire stages was likely to be negligible.

Data Collection

Household interviews took place in respondents' homes; prison interviews generally took place in a classroom or library in the prison. Whenever possible, interviewers administered the background questionnaire and assessment in a private setting. Unless there were security concerns, a guard was not present in the room when inmates were interviewed.

Interviewers used a computer-assisted personal interviewing (CAPI) system programmed into laptop computers. The interviewers read the background questions from the computer screen and entered all responses directly into the computer. Skip patterns and follow-up probes for contradictory or out-of-range responses were programmed into the computer.

After completing the background questionnaire, respondents were handed a booklet with the assessment questions. The interviewers followed a script that introduced the assessment booklet and guided the respondent through the assessment.

Each assessment booklet began with the same seven questions. After the respondent completed those questions, the interviewer asked the respondent for the book and used an algorithm to determine on the basis of the responses to the first seven questions whether the respondent should continue in the main assessment or be placed in the Adult Literacy Supplemental Assessment (ALSA). Three percent of adults weighted (5 percent unweighted) were placed in the ALSA.

ALSA was a performance-based assessment that allowed adults with marginal literacy to demonstrate what they could and could not do when asked to make sense of various forms of print. The ALSA started with simple identification tasks and sight words and moved to connected text, using authentic, highly contextualized material commonly found at home or in the community. Respondents placed in the ALSA are included in the NAAL sample based on their responses to the seven questions. Because the ALSA respondents got most or all of the seven questions at the beginning of the assessment wrong, they would have been classified into the *Below Basic* level on the health scale.

A respondent who continued in the main assessment was given back the assessment booklet, and the interviewer asked the respondent to complete the tasks in the booklet and guided the respondent through the tasks. The main assessment consisted of 12 blocks of tasks with approximately 11 questions in each block, but each assessment booklet included only 3 blocks of questions. The blocks were spiraled so that across the 26 different configurations of the assessment booklet, each block was paired with every other block and each block appeared in each of the three positions (first, middle, last) in a booklet.

For ALSA interviews, the interviewer read the ALSA script from a printed booklet and classified the respondent's answers into the response categories in

the printed booklet. ALSA respondents were handed the materials they were asked to read

Following the main assessment or ALSA, all respondents were administered the oral fluency assessment (not discussed in this report). Respondents were handed a booklet with passages, number lists, letter lists, word lists, and pseudoword lists to read orally. Respondents read into a microphone that recorded their responses on the laptop computer.

Weighting and Variance Estimation

A complex sample design was used to select assessment respondents. The properties of a sample selected through a complex design could be very different from those of a simple random sample in which every individual in the target population has an equal chance of selection and in which the observations from different sampled individuals can be considered to be statistically independent of one another. Therefore, the properties of the sample for the complex data collection design were taken into account during the analysis of the data. Standard errors calculated as though the data had been collected from a simple random sample would generally underestimate sampling errors. One way of addressing the properties of the sample design was by using sampling weights to account for the fact that the probabilities of selection were not identical for all respondents. All population and subpopulation characteristics based on the NAAL data used sampling weights in their estimation.

The statistics presented in this report are estimates of group and subgroup performance based on a sample of respondents, rather than the values that could be calculated if every person in the nation answered every question on the instrument. It is therefore important to have measures of the degree of uncertainty of the estimates. Accordingly, in addition to providing estimates of percentages of respondents

and their average scale score, this report provides information about the uncertainty of each statistic.

Because the assessment used clustered sampling, conventional formulas for estimating sampling variability that assume simple random sampling and hence independence of observations are inappropriate. For this reason, the NAAL assessment uses a Taylor series procedure based on the *sandwich estimator* to estimate standard errors (Binder 1983).

Scaling

As discussed above, each respondent to the NAAL received a booklet that included 3 of the 13 assessments blocks. Because each respondent did not answer all of the NAAL items, item response theory (IRT) methods were used to estimate average scores on the prose, document, and quantitative literacy scales; a simple average percent correct would not allow reporting results that are comparable for all respondents. IRT models the probability of answering a question correctly as a mathematical function of proficiency or skill. The main purpose of IRT analysis is to provide a common scale on which performance on some latent trait can be compared across groups, such as those defined by sex, race/ethnicity, or place of birth (Hambleton and Swaminathan 1985).

IRT models assume that an examinee's performance on each item reflects characteristics of the item and characteristics of the examinee. All models assume that all items on a scale measure a common latent ability or proficiency dimension (e.g., prose literacy) and that the probability of a correct response on an item is uncorrelated with the probability of a correct response on another item given fixed values of the latent trait. Items are measured in terms of their difficulty as well as their ability to discriminate among examinees of varying ability.

The assessment used two types of IRT models to estimate scale scores. The two-parameter logistic (2PL) model, which was used for dichotomous items (that is, items that are scored either right or wrong) takes the form

$$P(x_{ij}=1 | \theta_j, a_i, b_i) = \frac{1}{1 + e^{-1.7a_i(\theta_j - b_i)}},$$

where x_{ij} is the response of person j to item i , θ_j is the proficiency of person j , a_i is the *slope* or *discrimination* parameter for item i , and b_i is the *location* or *difficulty* parameter for item i .

For the partial credit items, the graded response logistic (GRL) model was used. This model follows the 2PL model for the probability of a score of 1 (at least partially correct):

$$P(x_{ij} \geq 1 | \theta_j, a_i, b_{i1}) = \frac{1}{1 + e^{-1.7a_i(\theta_j - b_{i1})}}.$$

It also follows the 2PL model for the probability of a score of 2 (completely correct):

$$P(x_{ij}=2 | \theta_j, a_i, b_{i2}) = \frac{1}{1 + e^{-1.7a_i(\theta_j - b_{i2})}}.$$

In the equations above, b_{i1} and b_{i2} are the step parameters corresponding to the response categories of partially or fully correct.

The scale indeterminacy was solved by setting an origin and unit size to the reported scale means and

standard deviations from the 1992 assessment.⁶ Linear transformation was performed to transform the original scale metric to the final reporting metric.

Levels were set and items were mapped to scales based on the scores corresponding to a 67 percent success rate on the tasks.

Statistical Testing

The statistical comparisons in this report were based on the t statistic. Statistical significance was determined by calculating a t value for the difference between a pair of means, or proportions, and comparing this value with published tables of values at a certain level of significance, called alpha level. The alpha level is an a priori statement of the probability of inferring that a difference exists when, in fact, it does not. The alpha level used in this report is .05, based on a two-tailed test. The formula used to compute the t statistic was as follows:

$$t = \frac{(P_1 - P_2)}{\sqrt{(SE_1^2 + SE_2^2)}},$$

where P_1 and P_2 are the estimates to be compared and SE_1 and SE_2 are their corresponding standard errors.

⁶ The means for the 1992 assessment were 276 for prose, 271 for document, and 275 for quantitative. The standard deviations for the 1992 assessment were 61 for prose, 61 for document, and 66 for quantitative. The standard deviations for the 2003 assessment were 59 for prose, 57 for document, and 61 for quantitative.

Estimates and Standard Errors for Tables and Figures

Table D2-1. Estimates and standard errors for Table 2-1. Percentage of adults in selected population groups: 1992 and 2003

Characteristic	1992	2003
Gender		
Male	48 (0.5)	49 (0.5)
Female	52 (0.5)	51 (0.5)
Race/ethnicity		
White	77 (0.8)	70 (1.3)*
Black	11 (0.4)	12 (0.8)
Hispanic	8 (0.5)	12 (1.2)*
Asian/Pacific Islander	2 (0.2)	4 (0.5)*
American Indian/Alaska Native	1 (0.3)	1 (0.1)
Multiracial	—	2 (0.2)
Language spoken before starting school		
English only	86 (0.6)	81 (1.1)*
English and Spanish	2 (0.2)	2 (0.3)
English and other	3 (0.2)	4 (0.3)
Spanish	5 (0.3)	8 (0.8)*
Other language	4 (0.2)	5 (0.4)
Age learned English		
Native Language English Only	86 (0.6)	81 (1.1)*
10 or younger	8 (0.5)	10 (0.6)*
11 to 15	2 (0.1)	2 (0.2)*
16 to 20	1 (0.1)	2 (0.2)
21 or older	2 (0.1)	3 (0.2)*
Does not speak English	1 (0.1)	3 (0.4)*
Age		
16–18	6 (0.2)	6 (0.3)
19–24	13 (0.4)	11 (0.4)*
25–39	33 (0.5)	28 (0.5)*
40–49	17 (0.3)	20 (0.5)*
50–64	16 (0.3)	21 (0.4)*
65 and older	15 (0.5)	15 (0.6)
Household income		
Less than \$10,000	—	10 (0.5)
\$10,000–\$14,999	—	7 (0.3)
\$15,000–\$19,999	—	6 (0.3)
\$20,000–\$29,999	—	12 (0.5)
\$30,000–\$39,999	—	11 (0.4)
\$40,000–\$59,999	—	19 (0.5)
\$60,000–\$99,999	—	22 (0.7)
\$100,000 or greater	—	13 (0.7)

— Not available.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. The English and Spanish category includes adults who spoke languages in addition to both English and Spanish. The Spanish category includes adults who spoke Spanish and additional non-English languages. Results for adults who identified "other" as their race in 1992 are not included in this table. The percentage of the population that identified "other" as their race in 1992 rounds to 0. Household income data were not available for 1992.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-2. Estimates and standard errors for Figure 2-1. Average prose, document, and quantitative literacy scores of adults: 1992 and 2003

Literacy scale	1992	2003
Prose	276 (1.1)	275 (1.3)
Document	271 (1.1)	271 (1.2)
Quantitative	275 (1.1)	283 (1.2)*

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-3. Estimates and standard errors for Figure 2-2. Percentage of adults in each prose, document, and quantitative literacy level: 1992 and 2003

Literacy scale	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose	14 (0.4)	14 (0.6)	28 (0.4)	29 (0.6)	43 (0.5)	44 (0.7)	15 (0.4)	13 (0.5)*
Document	14 (0.5)	12 (0.5)*	22 (0.4)	22 (0.5)	49 (0.5)	53 (0.7)*	15 (0.4)	13 (0.6)*
Quantitative	26 (0.6)	22 (0.6)*	32 (0.4)	33 (0.5)	30 (0.4)	33 (0.5)*	13 (0.4)	13 (0.5)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-4. Estimates and standard errors for Figure 2-3. Average prose, document, and quantitative literacy scores of adults, by gender: 1992 and 2003

Gender	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
Male	276 (1.2)	272 (1.5)*	274 (1.2)	269 (1.5)*	283 (1.4)	286 (1.3)
Female	277 (1.3)	277 (1.4)	268 (1.2)	272 (1.2)*	269 (1.2)	279 (1.3)*

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-5. Estimates and standard errors for Figure 2-4. Percentage of adults in each prose, document, and quantitative literacy level, by gender: 1992 and 2003

Literacy scale and gender	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Male	15 (0.4)	15 (0.6)	27 (0.5)	29 (0.7)	42 (0.5)	43 (0.7)	16 (0.5)	13 (0.6)*
Female	13 (0.5)	12 (0.6)	29 (0.5)	29 (0.6)	44 (0.6)	46 (0.8)	14 (0.5)	14 (0.6)
Document								
Male	14 (0.5)	14 (0.6)	21 (0.4)	23 (0.5)*	49 (0.6)	51 (0.8)*	17 (0.5)	13 (0.6)*
Female	14 (0.6)	11 (0.6)*	23 (0.4)	22 (0.6)	50 (0.7)	54 (0.8)*	13 (0.5)	13 (0.6)
Quantitative								
Male	24 (0.7)	21 (0.6)*	29 (0.4)	31 (0.5)*	31 (0.5)	33 (0.5)*	17 (0.5)	16 (0.6)
Female	28 (0.7)	22 (0.8)*	34 (0.5)	35 (0.7)	28 (0.6)	32 (0.7)*	9 (0.4)	11 (0.6)*

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-6. Estimates and standard errors for Figure 2-5. Average prose, document, and quantitative literacy scores of adults, by race/ethnicity: 1992 and 2003

Race/ethnicity	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
White	287 (1.2)	288 (1.5)	281 (1.2)	282 (1.5)	288 (1.1)	297 (1.3)*
Black	237 (1.4)	243 (1.8)*	230 (1.4)	238 (2.1)*	222 (1.6)	238 (2.1)*
Hispanic	234 (2.3)	216 (3.5)*	238 (1.8)	224 (3.6)*	233 (2.3)	233 (3.2)
Asian/Pacific Islander	255 (6.1)	271 (4.0)*	259 (6.1)	272 (5.0)	268 (7.8)	285 (5.1)
American Indian/Alaska Native	254 (4.2)	264 (9.5)	247 (6.2)	258 (6.6)	245 (5.5)	265 (10.8)
Multiracial	—	273 (4.6)	—	269 (3.9)	—	270 (4.1)

— Not available.

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this table. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-7. Estimates and standard errors for Figures 2-6a, 2-6b, and 2-6c. Percentage of adults in each prose, document, and quantitative literacy level, by race/ethnicity: 1992 and 2003

Literacy scale and race/ethnicity	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
White	9 (0.4)	7 (0.5)*	25 (0.6)	25 (0.8)	48 (0.6)	51 (0.9)*	18 (0.6)	17 (0.9)
Black	30 (1.1)	24 (1.4)*	41 (0.9)	43 (1.2)	27 (0.9)	31 (1.4)*	2 (0.3)	2 (0.4)
Hispanic	35 (1.2)	44 (1.8)*	33 (0.8)	30 (1.0)*	28 (0.9)	23 (1.1)*	5 (0.5)	4 (0.4)*
Asian/Pacific Islander	25 (3.4)	14 (2.0)*	30 (2.2)	32 (2.2)	36 (2.8)	42 (2.5)	9 (1.7)	12 (1.8)
American Indian/Alaska Native	17 (3.1)	19 (4.2)	43 (3.3)	29 (4.0)*	35 (3.7)	41 (4.5)	5 (1.6)	10 (3.6)
Multiracial	—	7 (3.2)	—	35 (5.5)	—	54 (5.8)	—	4 (3.0)
Document								
White	10 (0.5)	8 (0.5)*	19 (0.4)	19 (0.7)	53 (0.6)	58 (1.0)*	18 (0.6)	15 (1.0)*
Black	31 (1.1)	24 (1.7)*	33 (0.8)	35 (1.4)	34 (1.0)	40 (1.9)*	2 (0.3)	2 (0.5)
Hispanic	28 (1.1)	36 (1.6)*	29 (0.8)	26 (0.8)*	38 (0.9)	33 (1.2)*	5 (0.5)	5 (0.5)
Asian/Pacific Islander	19 (3.0)	11 (2.2)*	23 (2.1)	22 (2.1)	48 (3.3)	54 (3.0)	10 (2.0)	13 (2.3)
American Indian/Alaska Native	19 (4.0)	16 (3.8)	31 (4.6)	27 (3.9)	47 (5.7)	51 (4.8)	3 (2.0)	6 (2.8)
Multiracial	—	9 (2.0)	—	27 (2.8)	—	55 (3.5)	—	9 (2.6)
Quantitative								
White	19 (0.6)	13 (0.7)*	32 (0.5)	32 (0.7)	34 (0.6)	39 (0.8)*	15 (0.5)	17 (0.8)
Black	57 (1.1)	47 (1.8)*	30 (0.8)	36 (1.3)*	12 (0.6)	15 (1.1)*	1 (0.2)	2 (0.4)
Hispanic	50 (1.4)	50 (1.7)	31 (0.9)	29 (0.9)	16 (0.8)	17 (0.9)	3 (0.4)	4 (0.5)
Asian/Pacific Islander	31 (3.7)	19 (3.0)*	29 (2.3)	34 (2.9)	28 (2.4)	35 (2.8)	12 (2.5)	12 (2.5)
American Indian/Alaska Native	43 (4.0)	32 (5.8)	35 (2.6)	31 (3.8)	19 (2.5)	27 (4.2)	4 (1.4)	10 (3.6)
Multiracial	—	27 (3.1)	—	37 (2.7)	—	29 (2.6)	—	7 (1.7)

— Not available.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. In 1992, respondents were allowed to identify only one race but could identify "other" as their race. In 2003, respondents were allowed to identify multiple races but could not choose "other" as their race. All adults of Hispanic origin are classified as Hispanic, regardless of race. The Asian/Pacific Islander category includes Native Hawaiians. Results for adults who identified "other" as their race in 1992 are not included in this table. The percentage of the population that identified "other" as their race in 1992 rounds to 0.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-8. Estimates and standard errors for Figure 2-7. Average prose, document, and quantitative literacy scores of adults, by Hispanic ethnicity: 1992 and 2003

Hispanic ethnicity	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
Hispanic/Mexican	224 (2.6)	204 (5.6)*	230 (2.1)	207 (6.2)*	227 (2.5)	223 (4.5)
Hispanic/Puerto Rican	230 (5.0)	242 (6.0)	231 (4.1)	249 (5.7)*	221 (5.1)	244 (5.6)*
Hispanic/Cuban	233 (10.0)	207 (18.1)	247 (11.1)	227 (23.6)	249 (19.5)	257 (14.6)
Hispanic/Central or South American	229 (5.4)	204 (8.3)*	239 (4.5)	220 (7.7)*	229 (4.9)	234 (6.6)
Hispanic/Other	269 (5.4)	242 (5.4)*	268 (5.3)	250 (7.6)	261 (5.4)	254 (5.7)

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. All adults of Hispanic origin are classified as Hispanic, regardless of race. Because adults provided their income in ranges rather than by precise dollar figures, adults could not be exactly matched to a poverty category. The categories shown in this table represent the best matches possible based upon the categorical data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-9. Estimates and standard errors for Table 2-2. Percentage of Hispanic adults, by Hispanic ethnicity: 1992 and 2003

Hispanic ethnicity	1992	2003
Hispanic/Mexican	55 (2.5)	58 (4.3)
Hispanic/Puerto Rican	12 (1.5)	10 (1.3)
Hispanic/Cuban	5 (0.6)	4 (1.6)
Hispanic/Central or South American	11 (1.0)	16 (2.1)*
Hispanic/Other	17 (1.9)	12 (1.4)*

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. All adults of Hispanic origin are classified as Hispanic, regardless of race.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-10. Estimates and standard errors for Figures 2-8a, 2-8b, and 2-8c. Percentage of adults in each prose, document, and quantitative literacy level, by Hispanic ethnicity: 1992 and 2003

Literacy scale and Hispanic ethnicity	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Hispanic/Mexican	40 (1.4)	49 (2.5)*	32 (0.9)	27 (1.4)*	24 (1.0)	20 (1.4)*	4 (0.4)	4 (0.6)
Hispanic/Puerto Rican	34 (3.8)	28 (3.8)	40 (3.2)	38 (3.0)	24 (3.2)	31 (3.5)	2 (1.0)	3 (1.2)
Hispanic/Cuban	37 (4.2)	49 (8.0)	29 (2.6)	22 (3.7)	26 (3.4)	24 (5.4)	8 (2.0)	5 (1.7)
Hispanic/Central or South American	38 (3.0)	50 (3.5)*	32 (2.1)	27 (2.0)*	26 (2.5)	19 (1.8)*	4 (1.1)	4 (1.0)
Hispanic/Other	14 (2.2)	28 (3.4)*	32 (2.8)	36 (2.5)	44 (3.0)	33 (3.2)*	10 (2.4)	4 (1.1)*
Document								
Hispanic/Mexican	33 (1.4)	42 (2.3)*	29 (0.9)	24 (0.9)*	35 (1.1)	29 (1.4)*	4 (0.5)	5 (0.6)*
Hispanic/Puerto Rican	31 (3.1)	19 (4.1)*	32 (2.9)	32 (3.6)	34 (2.5)	45 (4.7)*	4 (1.2)	4 (2.1)
Hispanic/Cuban	25 (5.0)	40 (6.9)	28 (3.0)	15 (2.2)*	37 (3.8)	30 (3.6)	10 (4.0)	15 (4.2)
Hispanic/Central or South American	24 (4.5)	37 (3.1)*	36 (3.6)	27 (1.8)*	38 (4.7)	31 (2.6)	2 (1.5)	5 (1.0)
Hispanic/Other	14 (2.0)	21 (3.4)	23 (2.1)	26 (2.3)	50 (2.7)	45 (3.5)	13 (2.3)	8 (2.0)
Quantitative								
Hispanic/Mexican	54 (1.6)	55 (2.2)	29 (1.1)	27 (1.3)	15 (0.9)	15 (1.1)	3 (0.4)	3 (0.5)
Hispanic/Puerto Rican	59 (4.2)	44 (4.5)*	30 (3.1)	34 (2.9)	10 (2.1)	20 (3.4)*	1 (0.6)	2 (1.2)
Hispanic/Cuban	40 (10.2)	36 (5.3)	33 (5.6)	28 (2.6)	20 (6.0)	25 (3.4)	6 (4.5)	11 (3.5)
Hispanic/Central or South American	53 (4.1)	49 (4.0)	34 (3.0)	31 (2.2)	12 (2.2)	17 (2.5)	1 (0.7)	3 (1.1)
Hispanic/Other	31 (3.3)	39 (3.8)	36 (2.6)	33 (2.3)	28 (2.7)	23 (2.6)	5 (1.5)	6 (1.7)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. All adults of Hispanic origin are classified as Hispanic, regardless of race. Because adults provided their income in ranges rather than by precise dollar figures, adults could not be exactly matched to a poverty category. The categories shown in this table represent the best matches possible based upon the categorical data.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-11. Estimates and standard errors for Figure 2-9. Average prose, document, and quantitative literacy scores of adults, by language spoken before starting school: 1992 and 2003

Language spoken before starting school	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
English only	282 (1.2)	283 (1.4)	275 (1.2)	276 (1.3)	280 (1.2)	289 (1.2)*
English and Spanish	255 (2.9)	262 (3.1)	253 (3.6)	259 (3.4)	247 (4.6)	261 (3.8)*
English and other	273 (4.0)	278 (3.1)	260 (4.5)	268 (3.2)	271 (5.6)	289 (4.1)*
Spanish	205 (2.9)	188 (3.8)*	216 (2.8)	199 (4.6)*	212 (3.3)	211 (4.6)
Other language	239 (3.4)	249 (4.6)	241 (3.7)	257 (4.2)*	246 (4.3)	270 (4.3)*

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. English and Spanish category includes adults who spoke languages in addition to both English and Spanish. Spanish category includes adults who spoke Spanish and additional non-English languages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-12. Estimates and standard errors for Figures 2-10a, 2-10b, and 2-10c. Percentage of adults in each prose, document, and quantitative literacy level, by language spoken before starting school: 1992 and 2003

Literacy scale and language spoken before starting school	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
English only	11 (0.4)	9 (0.5)*	27 (0.5)	27 (0.7)	46 (0.6)	49 (0.8)*	16 (0.5)	15 (0.7)
English and Spanish	19 (2.1)	14 (2.1)	38 (2.1)	38 (2.2)	39 (2.3)	42 (2.4)	4 (1.0)	6 (1.3)
English and other	15 (1.8)	7 (1.5)*	30 (1.7)	33 (2.8)	43 (2.1)	51 (3.1)*	13 (1.6)	9 (2.1)
Spanish	52 (1.5)	61 (1.8)*	30 (0.9)	25 (1.1)*	16 (1.0)	13 (0.9)*	2 (0.4)	1 (0.3)*
Other language	32 (2.0)	26 (2.2)	35 (1.3)	33 (2.0)	29 (1.7)	34 (2.3)	5 (0.8)	7 (1.3)
Document								
English only	12 (0.5)	9 (0.5)*	21 (0.4)	21 (0.6)	51 (0.6)	56 (0.8)*	16 (0.5)	13 (0.7)*
English and Spanish	18 (1.8)	12 (2.5)	30 (2.1)	29 (3.0)	45 (2.3)	54 (3.8)*	7 (1.4)	5 (1.8)
English and other	19 (2.4)	10 (2.0)*	24 (1.4)	25 (2.3)	46 (2.4)	57 (2.9)*	11 (1.5)	8 (2.0)
Spanish	41 (2.0)	49 (2.0)*	30 (1.1)	25 (1.0)*	27 (1.6)	23 (1.3)	2 (0.5)	3 (0.4)
Other language	29 (1.9)	20 (1.9)*	26 (1.2)	24 (1.3)	39 (1.8)	46 (2.0)*	7 (0.9)	10 (1.2)*
Quantitative								
English only	23 (0.6)	18 (0.6)*	32 (0.4)	33 (0.6)	32 (0.5)	35 (0.6)*	13 (0.5)	15 (0.6)
English and Spanish	43 (2.6)	31 (3.3)*	31 (1.8)	39 (2.6)*	21 (1.8)	26 (2.8)	6 (1.3)	4 (1.3)
English and other	31 (2.7)	15 (2.7)*	29 (1.4)	38 (2.7)*	27 (1.7)	34 (3.0)*	14 (1.7)	14 (2.6)
Spanish	62 (1.8)	62 (2.2)	25 (1.1)	25 (1.2)	11 (1.0)	11 (1.1)	2 (0.4)	2 (0.5)
Other language	42 (2.1)	28 (2.3)*	31 (1.3)	33 (1.7)	20 (1.4)	29 (1.9)*	7 (1.1)	10 (1.5)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. English and Spanish category includes adults who spoke languages in addition to both English and Spanish. Spanish category includes adults who spoke Spanish and additional non-English languages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-13. Estimates and standard errors for Figure 2-11. Average prose, document, and quantitative literacy scores of adults who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003

Age learned English	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
10 or younger	263 (2.1)	274 (1.9)*	257 (2.2)	267 (1.9)*	260 (2.4)	278 (2.5)*
11–15	235 (5.2)	242 (4.9)	248 (4.9)	251 (6.4)	251 (6.0)	265 (6.3)
16–20	205 (6.2)	208 (5.8)	211 (5.4)	229 (5.5)*	218 (6.9)	238 (5.0)*
21 or older	187 (5.2)	191 (3.7)	203 (4.3)	206 (3.5)	196 (5.5)	223 (4.0)*

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-14. Estimates and standard errors for Figures 2-12a, 2-12b, and 2-12c. Percentage of adults in each prose, document, and quantitative literacy level who spoke a language other than or in addition to English before starting school, by age learned English: 1992 and 2003

Literacy scale and age learned English	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
10 or younger	18 (1.0)	10 (0.9)*	33 (0.9)	34 (1.3)	39 (1.0)	47 (1.5)*	10 (0.8)	10 (1.0)
11–15	34 (3.0)	28 (3.0)	34 (2.1)	38 (3.1)	27 (2.2)	30 (3.4)	4 (1.2)	4 (1.3)
16–20	53 (3.6)	51 (3.3)	30 (2.2)	31 (2.6)	15 (2.4)	16 (1.9)	2 (0.9)	3 (1.1)
21 or older	65 (3.3)	62 (2.2)	25 (2.2)	26 (1.6)	10 (1.9)	12 (1.4)	# (0.2)	# (0.2)
Document								
10 or younger	19 (1.1)	10 (1.0)*	26 (0.8)	26 (1.4)	46 (1.2)	57 (1.8)*	9 (0.8)	8 (1.2)
11–15	23 (2.6)	24 (2.9)	26 (2.0)	25 (2.0)	43 (2.8)	41 (2.7)	7 (1.6)	10 (1.9)
16–20	45 (3.4)	34 (3.6)*	29 (2.0)	29 (2.2)	25 (2.5)	34 (3.0)*	2 (0.8)	3 (1.1)
21 or older	51 (3.9)	45 (2.5)	31 (2.4)	32 (1.5)	18 (2.8)	22 (1.8)	1 (0.4)	1 (0.4)
Quantitative								
10 or younger	35 (1.3)	22 (1.6)*	32 (0.9)	36 (1.4)*	25 (0.9)	32 (1.4)*	9 (0.8)	10 (1.2)
11–15	39 (3.1)	31 (3.0)	33 (2.1)	33 (2.6)	21 (2.1)	25 (2.1)	6 (1.6)	10 (2.1)
16–20	59 (3.6)	48 (3.0)*	26 (2.1)	30 (2.3)	13 (1.9)	17 (1.9)	2 (1.0)	5 (1.3)
21 or older	70 (2.5)	57 (2.5)*	21 (1.8)	27 (1.6)*	7 (1.1)	14 (1.5)*	2 (1.1)	2 (0.6)

Rounds to zero.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-15. Estimates and standard errors for Figure 2-13. Average prose, document, and quantitative literacy scores of adults, by age: 1992 and 2003

Age	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
16–18	270 (2.3)	267 (2.8)	270 (2.2)	268 (2.9)	264 (2.5)	267 (3.1)
19–24	280 (2.0)	276 (2.4)	282 (2.2)	277 (2.5)	277 (2.0)	279 (2.3)
25–39	288 (1.3)	283 (1.7)*	286 (1.2)	282 (1.8)	286 (1.3)	292 (1.8)*
40–49	293 (2.0)	282 (2.3)*	284 (1.9)	277 (1.8)*	292 (1.8)	289 (1.9)
50–64	269 (1.4)	278 (1.9)*	258 (1.4)	270 (2.1)*	272 (1.8)	289 (1.9)*
65 and older	235 (1.7)	248 (2.0)*	221 (2.2)	235 (2.0)*	235 (2.7)	257 (2.2)*

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. Age was calculated based on the birth date information provided by respondents and grouped according to key life stages as described in appendix B.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-16. Estimates and standard errors for Figures 2-14a, 2-14b, and 2-14c. Percentage of adults in each prose, document, and quantitative literacy level, by age: 1992 and 2003

Literacy scale and age	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
16–18	10 (1.4)	11 (1.7)	35 (2.0)	37 (2.5)	49 (2.2)	48 (2.7)	6 (1.3)	5 (1.4)
19–24	10 (0.8)	11 (1.1)	29 (1.2)	29 (1.3)	49 (1.3)	48 (1.5)	13 (1.1)	12 (1.1)
25–39	10 (0.5)	12 (0.6)*	24 (0.5)	25 (0.7)	46 (0.6)	45 (0.7)	20 (0.6)	18 (0.8)
40–49	9 (0.5)	11 (0.9)	23 (0.8)	27 (1.1)*	45 (0.8)	47 (1.2)	23 (1.0)	15 (1.1)*
50–64	16 (0.7)	13 (0.8)*	31 (0.7)	27 (0.9)*	43 (0.8)	44 (1.1)	11 (0.6)	15 (0.8)*
65+	33 (1.2)	23 (1.3)*	37 (0.8)	38 (1.2)	27 (1.0)	34 (1.4)*	3 (0.4)	4 (0.6)
Document								
16–18	10 (1.1)	11 (1.4)	24 (1.5)	24 (1.8)	57 (1.7)	56 (2.4)	10 (1.2)	9 (1.7)
19–24	7 (0.7)	9 (1.1)	19 (1.0)	20 (1.2)	58 (1.4)	58 (1.7)	15 (1.4)	13 (1.5)
25–39	9 (0.4)	8 (0.7)	18 (0.4)	19 (0.7)	53 (0.6)	56 (1.1)*	21 (0.6)	17 (1.1)*
40–49	10 (0.7)	10 (0.7)	18 (0.6)	20 (0.8)*	52 (0.9)	54 (1.1)	20 (0.9)	15 (0.9)*
50–64	17 (0.8)	12 (0.9)*	27 (0.6)	23 (0.9)*	48 (1.0)	54 (1.2)*	9 (0.5)	12 (1.1)*
65+	38 (1.7)	27 (1.5)*	31 (1.0)	33 (1.0)	29 (1.4)	38 (1.4)*	2 (0.3)	3 (0.4)
Quantitative								
16–18	30 (1.8)	28 (2.3)	38 (1.5)	38 (2.1)	27 (1.5)	28 (2.1)	6 (0.9)	6 (1.3)
19–24	22 (1.3)	21 (1.4)	37 (1.3)	36 (1.3)	33 (1.4)	33 (1.4)	9 (1.0)	10 (1.1)
25–39	21 (0.7)	17 (0.8)*	31 (0.5)	31 (0.8)	33 (0.6)	35 (0.8)	15 (0.5)	17 (0.9)
40–49	19 (0.9)	19 (0.9)	28 (0.6)	32 (0.8)*	33 (0.7)	34 (0.8)	20 (0.7)	16 (0.9)*
50–64	27 (1.1)	19 (1.0)*	34 (0.7)	30 (0.8)*	29 (0.9)	34 (0.9)*	10 (0.6)	17 (0.8)*
65+	49 (1.5)	34 (1.6)*	29 (0.8)	37 (1.2)*	18 (0.9)	24 (1.2)*	5 (0.5)	5 (0.6)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. Age was calculated based on the birth date information provided by respondents and grouped according to key life stages as described in appendix B.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D2-17. Estimates and standard errors for Figure 2-15. Average prose, document, and quantitative literacy scores of adults, by learning disability status: 2003

Disability status	Prose	Document	Quantitative
Learning disability	252 (3.5)	247 (3.3)	254 (3.8)
No learning disability	276 (1.3)	272 (1.1)	284(1.1)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D2-18. Estimates and standard errors for Figure 2-16. Percentage of adults in each prose, document, and quantitative literacy level, by learning disability status: 2003

Literacy scale and disability status	Below Basic	Basic	Intermediate	Proficient
Prose				
Learning disability	24 (1.8)	34 (1.7)	35 (2.0)	7 (1.1)
No learning disability	13 (0.6)	28 (0.6)	45 (0.7)	14 (0.6)
Document				
Learning disability	24 (1.8)	28 (1.2)	42 (1.9)	7 (1.0)
No learning disability	12 (0.5)	22 (0.5)	53 (0.7)	13 (0.6)
Quantitative				
Learning disability	38 (2.0)	32 (1.3)	23 (1.4)	7 (1.1)
No learning disability	20 (0.6)	33 (0.5)	33 (0.5)	14 (0.5)

Note: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D2-19. Estimates and standard errors for Figure 2-17. Average prose, document, and quantitative literacy scores of adults, by household income: 2003

Literacy scale and household income	Average score
Prose	
Less than \$10,000	229 (2.5)
\$10,000–\$14,999	237 (2.9)
\$15,000–\$19,999	244 (3.7)
\$20,000–\$29,999	257 (2.3)
\$30,000–\$39,999	268 (2.6)
\$40,000–\$59,999	282 (1.7)
\$60,000–\$99,999	303 (1.7)
\$100,000 or greater	316 (2.0)
Document	
Less than \$10,000	225 (3.6)
\$10,000–\$14,999	232 (2.6)
\$15,000–\$19,999	240 (3.3)
\$20,000–\$29,999	256 (2.4)
\$30,000–\$39,999	263 (2.0)
\$40,000–\$59,999	278 (1.6)
\$60,000–\$99,999	297 (1.5)
\$100,000 or greater	304 (2.5)
Quantitative	
Less than \$10,000	223 (3.0)
\$10,000–\$14,999	237 (2.7)
\$15,000–\$19,999	244 (3.4)
\$20,000–\$29,999	261 (2.3)
\$30,000–\$39,999	271 (2.2)
\$40,000–\$59,999	286 (1.5)
\$60,000–\$99,999	303 (1.2)
\$100,000 or greater	314 (1.8)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D2-20. Estimates and standard errors for Table 2-3. Percentage of adults in each household income category, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$59,999	\$60,000 to \$99,999	\$100,000 or greater
Prose								
Below Basic	26 (1.5)	16 (1.1)	12 (1.0)	16 (1)	12 (1.1)	12 (1.1)	5 (0.9)	2 (0.5)
Basic	14 (0.8)	10 (0.6)	8 (0.5)	15 (0.7)	13 (0.7)	19 (0.8)	15 (1.0)	6 (0.6)
Intermediate	5 (0.4)	5 (0.4)	4 (0.3)	11 (0.6)	11 (0.6)	21 (0.7)	27 (1.0)	16 (1.0)
Proficient	2 (0.3)	1 (0.3)	2 (0.4)	5 (0.7)	7 (0.9)	18 (1.4)	35 (2.0)	30 (2.0)
Document								
Below Basic	27 (1.6)	17 (1.3)	11 (1.1)	16 (1.3)	11 (1.1)	11 (1.1)	5 (0.8)	3 (0.7)
Basic	13 (0.8)	12 (0.7)	8 (0.6)	15 (0.8)	14 (0.8)	18 (1.0)	13 (1.0)	6 (0.9)
Intermediate	6 (0.4)	5 (0.4)	4 (0.3)	11 (0.6)	11 (0.5)	21 (0.7)	26 (1.0)	16 (1.0)
Proficient	3 (0.5)	1 (0.3)	2 (0.4)	6 (0.9)	6 (0.9)	19 (1.7)	36 (2.4)	27 (2.8)
Quantitative								
Below Basic	26 (1.3)	16 (0.9)	11 (0.8)	16 (1.1)	11 (1.0)	12 (1.0)	7 (0.7)	2 (0.5)
Basic	9 (0.5)	8 (0.5)	6 (0.5)	14 (0.8)	14 (0.7)	21 (0.9)	19 (0.9)	9 (0.9)
Intermediate	4 (0.4)	4 (0.3)	3 (0.3)	10 (0.7)	11 (0.7)	22 (0.9)	28 (1.0)	18 (1.2)
Proficient	2 (0.4)	2 (0.3)	2 (0.4)	5 (0.9)	6 (1.0)	18 (1.6)	37 (2.0)	29 (2.3)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-1. Estimates and standard errors for Table 3-1. Percentage of adults, by highest educational attainment: 1992 and 2003

Educational attainment	1992	2003
Still in high school	4 (0.2)	3 (0.2)*
Less than/some high school	21 (0.5)	15 (0.6)*
GED/high school equivalency	4 (0.2)	5 (0.3)*
High school graduate	27 (0.5)	26 (0.6)*
Vocational/trade/business school	5 (0.2)	6 (0.3)
Some college	9 (0.3)	11 (0.4)*
Associate's/2-year degree	11 (0.3)	12 (0.4)*
Bachelor's degree	10 (0.3)	12 (0.5)*
Graduate studies/degree	9 (0.3)	11 (0.5)*

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D3-2. Estimates and standard errors for Table 3-2. Average prose, document, and quantitative literacy scores of adults, by highest educational attainment: 1992 and 2003

Educational attainment	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
Still in high school	268 (2.5)	262 (3.7)	270 (2.4)	265 (4.3)	263 (3.2)	261 (4.2)
Less than/some high school	216 (1.4)	207 (2.4)*	211 (1.5)	208 (2.6)	209 (2.1)	211 (2.2)
GED/high school equivalency	265 (2.2)	260 (2.1)	259 (2.3)	257 (2.5)	265 (2.3)	265 (3.1)
High school graduate	268 (1.0)	262 (1.3)*	261 (1.4)	258 (1.5)	267 (1.2)	269 (1.6)
Vocational/trade/business school	278 (2.1)	268 (2.7)*	273 (2.0)	267 (2.5)	280 (2.2)	279 (2.2)
Some college	292 (1.4)	287 (1.6)*	288 (1.6)	280 (1.7)*	295 (1.7)	294 (1.7)
Associate's/2-year degree	306 (1.9)	298 (2.4)*	301 (1.9)	291 (2.0)*	305 (2.0)	305 (2.1)
Bachelor's degree	325 (1.9)	314 (2.1)*	317 (1.9)	303 (2.2)*	324 (1.8)	323 (1.8)
Graduate studies/degree	340 (2.0)	327 (2.8)*	328 (1.9)	311 (2.2)*	336 (2.1)	332 (2.1)

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D3-3. Estimates and standard errors for Figures 3-1a, 3-1b, and 3-1c. Percentage of adults in each prose, document, and quantitative literacy level, by highest educational attainment: 1992 and 2003

Literacy scale and educational attainment	Below Basic		Basic		Intermediate		Proficient	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Still in high school	11 (1.6)	14 (2.5)	36 (2.3)	37 (2.8)	47 (2.5)	45 (3.1)	6 (1.4)	4 (1.5)
Less than/some high school	45 (1.2)	50 (1.4)*	38 (0.8)	33 (1.0)*	17 (0.8)	16 (0.9)	1 (0.2)	1 (0.2)
GED/high school equivalency	9 (1.9)	10 (1.8)	42 (3.2)	45 (2.9)	46 (3.5)	43 (3.0)	3 (1.4)	3 (1.1)
High school graduate	11 (0.7)	13 (1.0)	37 (1.0)	39 (1.2)	48 (1.1)	44 (1.3)*	5 (0.5)	4 (0.6)
Vocational/trade/business school	9 (1.1)	10 (1.8)	29 (1.7)	36 (2.6)*	53 (1.9)	49 (2.7)	9 (1.3)	5 (1.5)*
Some college	4 (0.6)	5 (0.7)	23 (1.4)	25 (1.4)	59 (1.7)	59 (1.7)	14 (1.4)	11 (1.4)
Associate's/2-year degree	2 (0.5)	4 (0.7)*	16 (1.3)	20 (1.5)*	58 (1.9)	56 (2.0)	23 (2.0)	19 (2.0)
Bachelor's degree	2 (0.4)	3 (0.5)	10 (0.8)	14 (1.0)*	49 (1.6)	53 (1.7)	40 (1.8)	31 (1.8)*
Graduate studies/degree	1 (0.3)	1 (0.4)	6 (0.8)	10 (1.2)*	43 (2.0)	48 (2.3)	51 (2.2)	41 (2.6)*
Document								
Still in high school	10 (1.1)	13 (2.3)	24 (1.6)	24 (2.2)	57 (2.0)	54 (3.0)	9 (1.4)	9 (1.9)
Less than/some high school	44 (1.3)	45 (1.4)	32 (0.7)	29 (0.7)*	23 (1.0)	25 (1.0)	1 (0.2)	2 (0.3)
GED/high school equivalency	9 (1.8)	13 (1.9)	31 (2.9)	30 (2.3)	58 (3.4)	53 (2.8)	3 (1.2)	4 (1.2)
High school graduate	12 (0.8)	13 (1.0)	28 (0.9)	29 (1.1)	54 (1.2)	52 (1.4)	6 (0.7)	5 (0.7)
Vocational/trade/business school	8 (1.0)	9 (1.5)	22 (1.3)	26 (2.3)	60 (1.8)	59 (2.7)	10 (1.3)	7 (1.7)
Some college	4 (0.6)	5 (0.8)	15 (1.1)	19 (1.3)*	67 (1.7)	65 (1.8)	14 (1.6)	10 (1.5)
Associate's/2-year degree	3 (0.5)	3 (0.7)	12 (1.0)	15 (1.5)	60 (1.7)	66 (2.3)*	25 (1.8)	16 (2.2)*
Bachelor's degree	2 (0.3)	2 (0.6)	9 (0.7)	11 (1.2)	52 (1.6)	62 (2.5)*	37 (1.7)	25 (2.7)*
Graduate studies/degree	1 (0.2)	1 (0.4)	5 (0.6)	9 (1.1)*	48 (1.9)	59 (2.6)*	45 (2.0)	31 (2.8)*
Quantitative								
Still in high school	31 (2.2)	31 (2.9)	37 (1.8)	38 (2.5)	27 (1.8)	25 (2.3)	6 (1.1)	5 (1.4)
Less than/some high school	65 (1.3)	64 (1.3)	25 (0.8)	25 (0.8)	9 (0.6)	10 (0.7)	1 (0.2)	1 (0.2)
GED/high school equivalency	25 (2.9)	26 (3.1)	46 (2.8)	43 (3.1)	26 (2.6)	28 (2.9)	3 (1.2)	3 (1.2)
High school graduate	26 (1.1)	24 (1.4)	41 (1.0)	42 (1.3)	29 (1.0)	29 (1.3)	5 (0.5)	5 (0.7)
Vocational/trade/business school	18 (1.8)	18 (2.1)	39 (2.0)	41 (2.3)	35 (2.0)	35 (2.3)	8 (1.4)	6 (1.4)
Some college	11 (1.1)	10 (1.2)	34 (1.6)	36 (1.8)	42 (1.7)	43 (1.8)	13 (1.4)	11 (1.5)
Associate's/2-year degree	8 (1.1)	7 (1.1)	29 (1.8)	30 (1.9)	45 (1.9)	45 (2.1)	18 (1.9)	18 (2.1)
Bachelor's degree	5 (0.7)	4 (0.6)	21 (1.2)	22 (1.2)	44 (1.5)	43 (1.5)	31 (1.8)	31 (1.9)
Graduate studies/degree	2 (0.5)	3 (0.6)	15 (1.3)	18 (1.5)	43 (2.0)	43 (2.1)	39 (2.4)	36 (2.6)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D3-4. Estimates and standard errors for Table 3-3. Average prose, document, and quantitative literacy scores of adults, by highest educational attainment and race/ethnicity: 1992 and 2003

Literacy scale and educational attainment	White		Black		Hispanic		Asian/Pacific Islander	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Still in high school	280 (3.0)	278 (4.0)	243 (3.1)	236 (5.8)	243 (7.4)	226 (10.0)	264 (16.7)	274 (12.4)
Less than high school/some high school	227 (1.7)	231 (2.9)	199 (2.1)	202 (3.3)	183 (3.2)	161 (4.3)*	184 (14.6)	212 (28.1)
High school graduate/GED/vocational classes	276 (1.0)	271 (1.2)*	236 (1.5)	241 (1.9)*	243 (2.8)	231 (4.2)*	239 (12.7)	230 (7.4)
Some college/associate's degree	306 (1.5)	300 (2.0)*	270 (2.6)	266 (2.2)	281 (3.8)	265 (2.6)*	279 (7.8)	284 (7.0)
College degree or higher	339 (1.6)	328 (1.8)*	288 (3.3)	280 (3.0)	294 (7.4)	283 (7.3)	282 (5.3)	292 (6.5)
Document								
Still in high school	283 (3.3)	279 (4.6)	242 (4.0)	241 (6.0)	241 (5.0)	223 (12.8)	261 (18.2)	279 (14.0)
Less than high school/some high school	220 (1.8)	229 (3.5)*	192 (2.0)	197 (3.9)	193 (3.3)	171 (4.2)*	200 (14.5)	207 (19.5)
High school graduate/GED/vocational classes	269 (1.3)	266 (1.6)	230 (1.7)	234 (2.3)	244 (2.9)	239 (3.6)	234 (9.8)	240 (9.8)
Some college/associate's degree	301 (1.7)	292 (1.7)*	261 (2.4)	259 (2.5)	280 (3.5)	265 (3.0)*	279 (6.7)	280 (8.3)
College degree or higher	328 (1.7)	313 (1.7)*	277 (3.3)	272 (3.4)	292 (7.1)	281 (5.4)	287 (6.9)	291 (5.7)
Quantitative								
Still in high school	279 (3.5)	279 (5.2)	225 (5.0)	227 (7.5)	233 (8.1)	218 (10.2)	254 (31.7)	270 (17.3)
Less than high school/some high school	224 (2.5)	235 (3.0)*	169 (3.3)	190 (4.2)*	178 (3.8)	177 (4.2)	191 (17.4)	205 (20.9)
High school graduate/GED/vocational classes	278 (1.1)	280 (1.3)	225 (1.8)	235 (2.3)*	242 (3.5)	245 (3.2)	245 (13.0)	243 (9.7)
Some college/associate's degree	308 (1.6)	309 (1.7)	261 (2.7)	262 (2.6)	278 (2.9)	275 (3.4)	281 (7.3)	291 (6.1)
College degree or higher	335 (1.5)	334 (1.2)	279 (2.2)	280 (3.6)	299 (7.6)	302 (5.8)	305 (9.3)	313 (3.5)

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D3-5. Estimates and standard errors for Figure 3-2. Average prose, document, and quantitative literacy scores of adults, by age obtained high school diploma or GED: 2003

Age	Prose	Document	Quantitative
19 or younger	290 (1.2)	283 (1.1)	297 (1.0)
20–24	252 (2.8)	251 (3.6)	257 (3.4)
25 or older	256 (2.6)	244 (3.5)	266 (3.6)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-6. Estimates and standard errors for Figure 3-3. Average prose, document, and quantitative literacy scores of adults, by age obtained college degree: 2003

Age	Prose	Document	Quantitative
23 or younger	325 (2.0)	313 (1.8)	332 (1.5)
24–29	310 (3.6)	294 (2.6)	317 (3.5)
30 or older	311 (4.1)	293 (3.6)	322 (4.1)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-7. Estimates and standard errors for Table 3-4. Percentage of adults in the *Below Basic* and *Basic* prose literacy levels who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003

Literacy level	Currently enrolled	Took class less than 2 years ago	Took class 2-5 years ago	Took class more than 5 years ago	Never took class
Below Basic	4 (0.9)	9 (1.2)	9 (1.1)	17 (1.5)	61 (2.0)
Basic	5 (1.7)	13 (3.0)	11 (1.9)	34 (3.4)	36 (3.9)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-8. Estimates and standard errors for Figure 3-4. Percentage of adults in each prose literacy level who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003

Enrollment status	Below Basic	Basic	Intermediate	Proficient
Never enrolled	82 (2.2)	12 (1.6)	6 (1.1)	1 (0.4)
Previously enrolled	63 (2.6)	26 (1.9)	10 (1.5)	# (0.2)
Currently enrolled	69 (8.8)	24 (5.8)	8 (4.9)	# (0.4)

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-9. Estimates and standard errors for Figure 3-5. Average document and quantitative literacy scores of adults, by whether they had received information technology certification: 2003

Certification status	Document	Quantitative
Certification	285 (2.7)	302 (2.4)
No certification	269 (1.3)	281 (1.2)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D3-10. Estimates and standard errors for Figure 3-6. Average document and quantitative literacy scores of adults who had received information technology certification, by highest educational attainment: 2003

Educational attainment	Document	Quantitative
Less than/some high school	252 (10.6)	255 (12.5)
High school graduate/GED	273 (4.6)	284 (5.1)
Some college/associate's degree	284 (4.0)	301 (4.1)
College graduate/postsecondary	303 (5.1)	327 (4.1)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-1. Estimates and standard errors for Figures 4-1a, 4-1b, and 4-1c. Percentage of adults in each employment status category, by prose, document, and quantitative literacy level: 1992 and 2003

Literacy scale and literacy level	Not in labor force		Unemployed		Part time		Full time	
	1992	2003	1992	2003	1992	2003	1992	2003
Prose								
Below Basic	57 (1.3)	51 (1.8)*	6 (0.5)	5 (0.6)	8 (0.6)	10 (0.9)	29 (1.3)	35 (1.8)*
Basic	40 (0.8)	38 (1.1)	6 (0.4)	6 (0.4)	12 (0.5)	12 (0.6)	42 (0.8)	44 (1.1)
Intermediate	26 (0.6)	27 (0.9)	5 (0.3)	5 (0.3)	15 (0.5)	14 (0.6)	54 (0.7)	54 (0.9)
Proficient	17 (0.9)	18 (1.3)	3 (0.4)	3 (0.5)	14 (0.9)	14 (1.1)	66 (1.2)	64 (1.6)
Document								
Below Basic	60 (1.4)	55 (1.9)*	5 (0.5)	5 (0.6)	9 (0.6)	9 (1.0)	27 (1.4)	32 (1.7)*
Basic	41 (0.9)	40 (1.1)	7 (0.4)	6 (0.5)	12 (0.5)	12 (0.7)	40 (0.9)	42 (1.1)
Intermediate	27 (0.6)	27 (0.8)	6 (0.3)	5 (0.3)	14 (0.4)	14 (0.6)	54 (0.7)	55 (0.9)
Proficient	15 (1.0)	19 (1.5)*	3 (0.4)	4 (0.7)	15 (0.9)	15 (1.4)	68 (1.3)	63 (1.9)*
Quantitative								
Below Basic	53 (1.1)	50 (1.4)	7 (0.4)	7 (0.5)	10 (0.5)	10 (0.8)	31 (1.0)	34 (1.3)
Basic	32 (0.7)	34 (1.0)	5 (0.3)	5 (0.4)	15 (0.5)	14 (0.7)	48 (0.8)	47 (1.0)
Intermediate	23 (0.7)	25 (0.9)	5 (0.3)	4 (0.3)	14 (0.5)	14 (0.7)	58 (0.8)	57 (1.0)
Proficient	18 (1.1)	17 (1.3)	3 (0.4)	4 (0.6)	12 (0.9)	13 (1.2)	67 (1.4)	66 (1.6)

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D4-2. Estimates and standard errors for Table 4-2. Percentage of adults in each occupational group: 1992 and 2003

Occupational group	1992	2003
Management, Business, and Financial	8 (0.3)	12 (0.5)
Professional and related	17 (0.4)	20 (0.5)
Service	20 (0.5)	19 (0.6)
Sales and related	12 (0.4)	11 (0.4)
Office and Administrative Support	17 (0.4)	14 (0.4)
Farming, Fishing, and Forestry	1 (0.2)	1 (0.1)
Construction and Extraction	5 (0.3)	7 (0.3)
Installation, Maintenance, and Repair	4 (0.2)	4 (0.2)
Production	10 (0.5)	8 (0.6)
Transportation and Material Moving	6 (0.3)	6 (0.3)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupational groups should be made with caution.

Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-3. Estimates and standard errors for Figures 4-2a, 4-2b, and 4-2c. Average prose, document, and quantitative literacy scores of adults, by occupational group: 1992 and 2003

Occupational group	Prose		Document		Quantitative	
	1992	2003	1992	2003	1992	2003
Management, Business, and Financial	316 (2.3)	306 (2.3)*	308 (2.1)	297 (2.3)*	322 (1.9)	318 (2.1)
Professional and related	321 (1.7)	317 (1.7)*	316 (1.6)	305 (1.8)*	320 (1.7)	321 (1.6)
Service	266 (1.6)	262 (2.3)	262 (1.7)	259 (2.4)	261 (1.7)	263 (1.9)
Sales and related	288 (2.0)	279 (2.3)*	282 (1.7)	281 (2.3)	287 (2.0)	293 (2.3)
Office and Administrative Support	292 (1.5)	287 (1.7)*	287 (1.6)	284 (1.6)	289 (1.4)	293 (2.0)
Farming, Fishing, and Forestry	254 (7.7)	219 (12.8)*	251 (6.0)	225 (11.7)	260 (6.9)	241 (15.3)
Construction and Extraction	261 (3.1)	255 (3.4)	261 (3.7)	251 (3.4)*	271 (3.7)	265 (3.4)
Installation, Maintenance, and Repair	273 (2.8)	279 (3.7)	272 (3.1)	280 (4.6)	280 (3.8)	293 (3.8)*
Production	257 (2.5)	255 (3.0)	253 (2.4)	253 (2.7)	257 (2.8)	267 (3.2)*
Transportation and Material Moving	261 (2.8)	252 (3.2)*	259 (2.9)	250 (3.3)*	263 (3.1)	263 (3.4)

*Significantly different from 1992.

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupation groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D4-4. Estimates and standard errors for Table 4-3. Percentage of adults in each occupational group, by prose, document, and quantitative literacy level: 1992 and 2003

Literacy scale and literacy level	Management, Business, and Financial		Professional and related		Service		Sales and related		Office and administrative support	
	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003
Prose										
Below Basic	3 (0.5)	3 (0.9)	3 (0.6)	4 (0.7)	32 (1.6)	30 (1.9)	6 (1.0)	8 (1.1)	8 (0.9)	8 (1.0)
Basic	5 (0.4)	8 (0.8)*	8 (0.5)	10 (0.6)*	25 (0.9)	24 (1.0)	12 (0.8)	12 (0.8)	15 (0.7)	14 (0.8)
Intermediate	9 (0.4)	15 (0.8)*	18 (0.6)	21 (0.7)*	18 (0.6)	16 (0.7)	14 (0.6)	12 (0.6)*	20 (0.6)	16 (0.6)*
Proficient	17 (1.0)	19 (1.7)	36 (1.4)	42 (1.8)*	10 (0.8)	10 (1.0)	9 (1.1)	7 (1.0)	15 (1.1)	13 (1.2)
Document										
Below Basic	3 (0.5)	3 (1.0)	4 (0.6)	5 (0.8)	33 (1.6)	35 (2.1)	7 (0.9)	6 (1.1)	8 (0.9)	6 (1.2)
Basic	5 (0.4)	7 (1.0)*	8 (0.5)	10 (0.9)*	25 (0.9)	24 (1.1)	12 (0.7)	10 (0.9)	15 (0.8)	13 (1.0)
Intermediate	9 (0.4)	15 (0.8)*	17 (0.5)	20 (0.8)*	18 (0.6)	16 (0.6)*	13 (0.5)	12 (0.6)*	19 (0.6)	17 (0.7)*
Proficient	15 (1.0)	17 (2.4)	36 (1.3)	39 (2.4)	11 (0.9)	12 (1.3)	9 (0.9)	9 (1.4)	15 (1.1)	12 (1.7)
Quantitative										
Below Basic	3 (0.3)	3 (0.6)	5 (0.5)	5 (0.7)	32 (1.2)	33 (1.5)	9 (0.8)	8 (0.8)	10 (0.9)	10 (1.1)
Basic	6 (0.4)	9 (0.7)*	12 (0.6)	14 (0.8)*	22 (0.7)	22 (0.9)	13 (0.6)	12 (0.6)	19 (0.8)	16 (0.8)*
Intermediate	10 (0.5)	15 (0.9)*	21 (0.7)	23 (0.9)*	15 (0.6)	14 (0.7)	13 (0.6)	11 (0.6)	20 (0.8)	16 (0.8)*
Proficient	19 (1.2)	22 (1.8)	36 (1.6)	37 (1.9)	9 (0.8)	7 (0.9)	9 (1.1)	10 (1.1)	11 (1.3)	12 (1.4)
Literacy scale and literacy level	Farming, Fishing, and Forestry		Construction and Extraction		Installation, Maintenance, and Repair		Production		Transportation and Material Moving	
	1992	2003	1992	2003	1992	2003	1992	2003	1992	2003
Prose										
Below Basic	4 (0.6)	3 (0.6)	10 (0.9)	15 (1.2)*	5 (0.7)	2 (0.7)*	19 (1.5)	15 (1.6)	12 (1.0)	11 (1.2)
Basic	2 (0.2)	1 (0.1)*	7 (0.5)	9 (0.5)	5 (0.4)	4 (0.6)	13 (0.8)	11 (0.8)*	8 (0.5)	9 (0.6)
Intermediate	1 (0.2)	# (0.1)*	5 (0.3)	5 (0.3)	4 (0.3)	4 (0.4)	8 (0.5)	7 (0.6)	5 (0.3)	4 (0.3)
Proficient	1 (0.2)	# (0.2)	3 (0.4)	3 (0.5)	2 (0.4)	2 (0.6)	3 (0.5)	3 (0.5)	3 (0.4)	2 (0.4)*
Document										
Below Basic	3 (0.7)	3 (0.6)	9 (1.0)	15 (1.5)*	5 (0.7)	2 (0.8)*	17 (1.5)	15 (1.7)	11 (1.1)	10 (1.5)
Basic	2 (0.3)	1 (0.2)*	7 (0.5)	9 (0.6)*	5 (0.4)	4 (0.7)	14 (0.9)	12 (1.0)	8 (0.6)	9 (0.8)
Intermediate	1 (0.2)	# (0.1)*	5 (0.3)	6 (0.4)	4 (0.3)	4 (0.4)	8 (0.5)	7 (0.5)*	6 (0.3)	5 (0.4)
Proficient	1 (0.2)	1 (0.2)	3 (0.5)	3 (0.6)	3 (0.4)	3 (1.1)	3 (0.5)	3 (0.7)	3 (0.5)	1 (0.5)*
Quantitative										
Below Basic	2 (0.5)	2 (0.4)	8 (0.7)	12 (1.0)*	5 (0.5)	2 (0.6)*	16 (1.1)	13 (1.2)	11 (0.7)	10 (0.9)
Basic	2 (0.3)	1 (0.1)*	5 (0.4)	8 (0.5)*	4 (0.3)	4 (0.5)	11 (0.6)	9 (0.7)	6 (0.4)	7 (0.5)
Intermediate	1 (0.2)	# (0.1)*	5 (0.4)	5 (0.4)	4 (0.3)	4 (0.5)	7 (0.5)	6 (0.6)	5 (0.3)	4 (0.4)
Proficient	1 (0.2)	1 (0.2)	4 (0.5)	3 (0.6)	4 (0.5)	3 (0.8)	4 (0.6)	4 (0.7)	4 (0.5)	2 (0.5)*

Rounds to zero.

*Significantly different from 1992.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this table. The 1992 and 2003 occupational groups were coded using different classifications. For the analyses presented in this report, 1992 results were recoded into 2003 categories using a crosswalk developed by the U.S. Census Bureau. However, some occupations could not be precisely linked between 1992 and 2003, and there was some sampling error in how other occupations were linked. Therefore, all comparisons between 1992 and 2003 occupation groups should be made with caution. Occupational information is available only for adults who were employed at some point during the 3 years prior to the assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 1992 National Adult Literacy Survey and 2003 National Assessment of Adult Literacy.

Table D4-5. Estimates and standard errors for Figures 4-3a, 4-3b, and 4-3c. Percentage of full-time employed adults in each weekly gross earnings category, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Less than \$300	\$300–\$499	\$500–\$649	\$650–\$849	\$850–\$1149	\$1150–\$1449	\$1450–\$1949	\$1950 or more
Prose								
Below Basic	18 (1.9)	41 (2.9)	18 (2.2)	12 (1.6)	7 (1.3)	3 (0.8)	1 (0.5)	2 (0.8)
Basic	12 (1.0)	31 (1.5)	19 (1.2)	16 (1.2)	12 (1.0)	5 (0.6)	2 (0.5)	4 (0.7)
Intermediate	8 (0.6)	19 (1.0)	17 (0.8)	18 (0.9)	17 (0.9)	8 (0.6)	6 (0.7)	8 (0.8)
Proficient	4 (0.7)	10 (1.3)	11 (1.4)	17 (1.7)	20 (1.9)	13 (1.4)	13 (1.7)	12 (1.7)
Document								
Below Basic	18 (2.1)	41 (3.0)	16 (2.4)	11 (2.1)	8 (1.6)	3 (1.2)	1 (1.0)	3 (1.2)
Basic	11 (1.0)	32 (1.6)	19 (1.5)	16 (1.6)	11 (1.2)	5 (0.9)	3 (1.1)	4 (0.9)
Intermediate	8 (0.6)	19 (0.9)	17 (0.8)	19 (1.0)	16 (0.9)	8 (0.7)	7 (1.0)	7 (0.8)
Proficient	6 (1.0)	14 (1.6)	10 (1.8)	14 (2.3)	22 (2.4)	12 (2.1)	10 (3.1)	12 (2.2)
Quantitative								
Below Basic	17 (1.7)	42 (2.3)	17 (1.9)	12 (1.6)	7 (1.1)	2 (0.7)	2 (0.8)	2 (0.7)
Basic	11 (0.9)	27 (1.3)	19 (1.1)	18 (1.2)	13 (0.9)	6 (0.8)	3 (0.6)	5 (0.7)
Intermediate	7 (0.7)	17 (1.0)	17 (1.1)	18 (1.1)	17 (1.0)	10 (0.9)	7 (0.9)	8 (0.9)
Proficient	3 (0.7)	10 (1.3)	10 (1.5)	16 (1.9)	22 (2.0)	13 (1.9)	13 (2.0)	14 (2.0)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-6. Estimates and standard errors for Figure 4-4. Percentage of adults who thought their reading skills limited their job opportunities, by prose and document literacy level: 2003

Literacy scale and literacy level	Not at all	A little	Some	A lot
Prose				
Below Basic	30 (2.0)	13 (1.2)	22 (1.4)	35 (2.0)
Basic	62 (1.2)	14 (0.8)	15 (0.8)	9 (0.7)
Intermediate	85 (0.7)	7 (0.4)	6 (0.4)	3 (0.3)
Proficient	96 (0.6)	2 (0.4)	1 (0.3)	1 (0.2)
Document				
Below Basic	33 (2.0)	13 (1.3)	20 (1.5)	34 (2.0)
Basic	62 (1.3)	12 (0.7)	16 (0.9)	11 (0.8)
Intermediate	81 (0.7)	8 (0.4)	7 (0.4)	4 (0.3)
Proficient	92 (0.9)	4 (0.7)	2 (0.5)	2 (0.4)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-7. Estimates and standard errors for Figure 4-5. Percentage of adults who thought their mathematics skills limited their job opportunities, by quantitative literacy level: 2003

Literacy level	Not at all	A little	Some	A lot
Below Basic	40 (1.6)	16 (1.0)	19 (1.2)	25 (1.4)
Basic	66 (1.0)	13 (0.6)	13 (0.7)	8 (0.6)
Intermediate	80 (0.8)	11 (0.6)	7 (0.5)	3 (0.3)
Proficient	89 (1.0)	8 (0.8)	3 (0.6)	1 (0.3)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-8. Estimates and standard errors for Figure 4-6. Percentage of adults who thought their computer skills limited their job opportunities, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Not at all	A little	Some	A lot
Document				
Below Basic	28 (1.8)	9 (1.1)	12 (1.2)	51 (2.1)
Basic	45 (1.4)	14 (0.8)	14 (0.8)	27 (1.3)
Intermediate	58 (1.1)	17 (0.6)	13 (0.5)	13 (0.7)
Proficient	67 (1.9)	18 (1.6)	9 (1.1)	6 (0.8)
Quantitative				
Below Basic	32 (1.5)	11 (0.8)	14 (0.9)	43 (1.7)
Basic	50 (1.2)	15 (0.7)	14 (0.7)	20 (1.0)
Intermediate	61 (1.2)	17 (0.7)	12 (0.6)	11 (0.7)
Proficient	70 (1.6)	18 (1.3)	8 (0.9)	5 (0.7)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-9. Estimates and standard errors for Figure 4-7. Percentage of adults in each prose and document literacy level who thought their reading skills limited their job opportunities "a lot" or "some," by whether or not they participated in job training that emphasized reading: 2003

Literacy scale and participation	Below Basic	Basic	Intermediate	Proficient
Prose				
Participated	27 (3.7)	41 (3.4)	30 (3.6)	2 (1.1)
Did not participate	42 (1.7)	35 (1.1)	22 (1.1)	2 (0.3)
Document				
Participated	23 (3.9)	33 (3.4)	40 (4.2)	3 (1.8)
Did not participate	35 (1.6)	29 (0.8)	33 (1.3)	3 (0.5)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-10. Estimates and standard errors for Figure 4-8. Percentage of adults in each quantitative literacy level who thought their mathematics skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized mathematics: 2003

Participation	Below Basic	Basic	Intermediate	Proficient
Participated	38 (4.5)	34 (3.6)	23 (3.6)	4 (1.7)
Did not participate	47 (1.7)	33 (1.2)	17 (1.0)	3 (0.5)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-11. Estimates and standard errors for Figure 4-9. Percentage of adults in each quantitative literacy level who thought their computer skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized computers: 2003

Participation	Below Basic	Basic	Intermediate	Proficient
Participated	20 (2.4)	37 (2.3)	33 (2.5)	10 (1.8)
Did not participate	38 (1.2)	35 (0.8)	22 (0.8)	5 (0.5)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-12. Estimates and standard errors for Figures 4-10a, 4-10b, and 4-10c. Percentage of women who were currently receiving public assistance or had received public assistance in the past, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Past participation	Current participation
Prose			
Below Basic	86 (1.5)	10 (1.4)	4 (0.6)
Basic	86 (0.9)	11 (0.9)	3 (0.4)
Intermediate	91 (0.6)	8 (0.6)	1 (0.2)
Proficient	97 (0.8)	3 (0.8)	# (0.1)
Document			
Below Basic	86 (1.8)	11 (1.7)	4 (0.7)
Basic	87 (1.0)	10 (1.0)	3 (0.4)
Intermediate	91 (0.6)	8 (0.6)	2 (0.2)
Proficient	96 (1.1)	4 (1.1)	# (0.2)
Quantitative			
Below Basic	83 (1.4)	13 (1.3)	4 (0.5)
Basic	89 (0.8)	10 (0.8)	2 (0.2)
Intermediate	93 (0.7)	6 (0.7)	1 (0.2)
Proficient	98 (0.8)	2 (0.8)	# (0.1)

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D4-13. Estimates and standard errors for Table 4-4. Percentage of women who received public assistance for varying lengths of time, by prose, document, and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Less than 6 months	6 months to 1 year	1–2 years	2–3 years	More than 3 years
Prose						
Below Basic	87 (1.4)	2 (0.5)	1 (0.6)	3 (0.7)	2 (0.4)	6 (0.9)
Basic	87 (0.9)	2 (0.3)	2 (0.4)	2 (0.4)	2 (0.4)	5 (0.5)
Intermediate	91 (0.6)	2 (0.2)	2 (0.3)	1 (0.2)	2 (0.2)	3 (0.3)
Proficient	97 (0.7)	1 (0.2)	1 (0.4)	1 (0.4)	# (0.3)	1 (0.2)
Document						
Below Basic	86 (1.6)	2 (0.6)	1 (0.7)	2 (0.7)	2 (0.7)	7 (0.9)
Basic	87 (1.0)	2 (0.4)	2 (0.4)	2 (0.4)	2 (0.6)	5 (0.5)
Intermediate	91 (0.6)	2 (0.3)	2 (0.3)	2 (0.2)	2 (0.3)	3 (0.3)
Proficient	96 (1.0)	1 (0.4)	1 (0.5)	1 (0.3)	# (0.4)	1 (0.4)
Quantitative						
Below Basic	84 (1.3)	2 (0.5)	2 (0.6)	3 (0.5)	2 (0.6)	7 (0.7)
Basic	89 (0.8)	2 (0.3)	2 (0.4)	2 (0.3)	2 (0.4)	4 (0.4)
Intermediate	93 (0.7)	1 (0.3)	1 (0.4)	1 (0.2)	1 (0.3)	2 (0.3)
Proficient	98 (0.7)	1 (0.4)	# (0.3)	1 (0.3)	# (0.3)	1 (0.3)

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-1. Estimates and standard errors for Figure 5-1. Percentage of parents who read to or with their children under age 8 during the previous week, by prose literacy level: 2003

Literacy level	Never	1 to 2 days	3 to 4 days	5 or more days
Below Basic	41 (2.6)	14 (1.7)	18 (2.1)	27 (2.4)
Basic	25 (1.6)	19 (1.3)	21 (1.5)	36 (1.9)
Intermediate	17 (1.0)	18 (1.1)	21 (1.3)	44 (1.7)
Proficient	14 (1.7)	14 (1.5)	22 (2.3)	50 (2.7)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-2. Estimates and standard errors for Figure 5-2. Percentage of parents whose children between the ages of 3 and 5 knew the letters of the alphabet, by prose literacy level: 2003

Literacy level	Child already knows letters
Below Basic	12 (2.7)
Basic	21 (2.2)
Intermediate	27 (2.1)
Proficient	31 (3.8)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-3. Estimates and standard errors for Figure 5-3. Percentage of parents with children who did not already know the letters of the alphabet who tried to teach their children between the ages of 3 and 5 the letters of the alphabet during the previous month, by prose literacy level: 2003

Literacy level	Never	Less than once a week	Once a week	Every day/a few times a week
Below Basic	19 (3.2)	10 (2.3)	10 (2.2)	62 (3.9)
Basic	7 (1.3)	10 (1.7)	10 (1.5)	73 (2.6)
Intermediate	7 (1.1)	11 (1.6)	10 (1.3)	73 (2.2)
Proficient	8 (2.2)	14 (2.9)	12 (2.5)	66 (4.0)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-4. Estimates and standard errors for Table 5-1. Percentage of parents who tried to teach their children under the age of 8 to read words during the previous month, by prose literacy level: 2003

Literacy level	Child already reads well	Never	Less than once a week	Once a week	Every day/a few times a week
Below Basic	5 (1.0)	25 (2.5)	9 (1.3)	8 (1.4)	53 (2.7)
Basic	4 (0.8)	22 (1.6)	8 (0.9)	7 (0.8)	59 (1.8)
Intermediate	4 (0.6)	20 (1.2)	8 (0.7)	7 (0.7)	61 (1.4)
Proficient	4 (1.0)	20 (2.1)	11 (1.5)	8 (1.3)	57 (2.6)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-5. Estimates and standard errors for Figure 5-4. Percentage of parents who engaged in rhyming activities with their children under the age of 8 during the previous month, by prose literacy level: 2003

Literacy level	Never	Less than once a week	Once a week	Every day/a few times a week
Below Basic	19 (1.9)	9 (1.5)	11 (1.5)	62 (2.5)
Basic	13 (1.2)	8 (1.0)	11 (0.9)	68 (1.7)
Intermediate	10 (0.9)	8 (0.8)	10 (0.8)	71 (1.4)
Proficient	10 (1.4)	7 (1.2)	11 (1.3)	73 (2.2)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-6. Estimates and standard errors for Figure 5-5. Percentage of parents who talked to their school-age children about things they studied in school, by prose literacy level: 2003

Literacy level	Never	Once a week or less	A few times a week	Every day
Below Basic	11 (1.6)	13 (1.8)	21 (2.2)	56 (2.8)
Basic	2 (0.4)	12 (1.2)	21 (1.4)	65 (1.7)
Intermediate	2 (0.3)	8 (0.8)	21 (1.2)	69 (1.3)
Proficient	2 (0.5)	5 (1.2)	22 (2.2)	71 (2.4)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-7. Estimates and standard errors for Figure 5-6. Percentage of parents who helped or worked with their school-age child on homework, by prose literacy level: 2003

Literacy level	Never	Once a week or less	A few times a week	Every day
Below Basic	25 (2.2)	17 (2.1)	19 (2.1)	39 (2.5)
Basic	14 (1.0)	19 (1.3)	26 (1.6)	42 (1.7)
Intermediate	11 (0.8)	22 (1.1)	30 (1.3)	38 (1.3)
Proficient	8 (1.0)	27 (2.3)	32 (2.4)	34 (2.4)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-8. Estimates and standard errors for Figure 5-7. Percentage of parents whose children ages 2 through 17 often saw them reading, by prose literacy level: 2003

Literacy level	Often sees adult reading
Below Basic	60 (2.7)
Basic	73 (1.5)
Intermediate	81 (1.2)
Proficient	90 (1.5)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-9. Estimates and standard errors for Figure 5-8. Percentage of adults who lived with children under age 18 and had reading materials in the home, by prose literacy level: 2003

Literacy level	None	Some	Many
Below Basic	19 (1.8)	28 (1.9)	54 (2.5)
Basic	3 (0.4)	14 (1.0)	83 (1.1)
Intermediate	1 (0.2)	8 (0.6)	92 (0.6)
Proficient	# (0.1)	4 (0.6)	96 (0.7)

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-10. Estimates and standard errors for Figure 5-9. Percentage of parents whose children ages 2 through 17 had their own books, by prose literacy level: 2003

Literacy level	Child has own books
Below Basic	93 (1.2)
Basic	98 (0.4)
Intermediate	99 (0.2)
Proficient	100 (0.3)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-11. Estimates and standard errors for Figure 5-10. Percentage of all adults and adults living in households with children under age 18 who had a computer in their home with word processing capability or Internet access, by prose literacy level: 2003

Computer capability and literacy level	All adults	Adults living with children
Computer with word processing capability		
Below Basic	40 (2.0)	50 (2.6)
Basic	66 (1.2)	75 (1.4)
Intermediate	84 (0.7)	89 (0.8)
Proficient	94 (0.7)	96 (0.7)
Computer with Internet access		
Below Basic	33 (1.9)	39 (2.7)
Basic	59 (1.3)	67 (1.6)
Intermediate	78 (0.8)	83 (1.0)
Proficient	90 (1.0)	93 (1.1)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D5-12. Estimates and standard errors for Figure 5-11. Percentage of parents who were involved in one to four activities in their children's schools, by prose literacy level: 2003

Literacy level	None	One	Two	Three	Four
Below Basic	15 (2.3)	16 (2.0)	18 (2.2)	28 (2.4)	23 (2.1)
Basic	11 (1.3)	14 (1.2)	23 (1.5)	28 (1.5)	25 (1.6)
Intermediate	9 (1.0)	11 (0.8)	21 (1.1)	29 (1.2)	29 (1.3)
Proficient	7 (1.5)	9 (1.5)	15 (1.7)	29 (2.3)	40 (2.5)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-1. Estimates and standard errors for Figure 6-1. Percentage of adult citizens of voting age who voted in the 2000 presidential election, by prose and document literacy level: 2003

Literacy level	Prose	Document
Below Basic	53 (2.2)	57 (2.2)
Basic	62 (1.3)	63 (1.4)
Intermediate	73 (1.0)	71 (1.0)
Proficient	84 (1.4)	84 (1.7)

NOTE: Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-2. Estimates and standard errors for Figure 6-2. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: newspapers, magazines, books or brochures, the Internet, by prose literacy level: 2003

Source and literacy level	None	A little	Some	A lot
Newspapers				
Below Basic	29 (1.4)	25 (1.3)	26 (1.3)	20 (1.3)
Basic	12 (0.6)	23 (0.8)	35 (0.9)	30 (0.9)
Intermediate	8 (0.5)	23 (0.6)	36 (0.7)	33 (0.8)
Proficient	7 (0.7)	26 (1.5)	32 (1.5)	35 (1.7)
Magazines				
Below Basic	42 (1.6)	23 (1.4)	25 (1.4)	9 (0.8)
Basic	25 (0.8)	30 (0.9)	34 (1.0)	12 (0.6)
Intermediate	18 (0.6)	35 (0.8)	37 (0.8)	10 (0.5)
Proficient	16 (1.1)	37 (1.7)	37 (1.7)	10 (0.9)
Books or brochures				
Below Basic	44 (1.6)	23 (1.3)	25 (1.4)	8 (0.7)
Basic	26 (0.9)	30 (1.0)	33 (1.0)	11 (0.6)
Intermediate	20 (0.7)	34 (0.8)	35 (0.8)	11 (0.5)
Proficient	21 (1.3)	39 (1.7)	30 (1.7)	9 (0.8)
Internet				
Below Basic	77 (1.5)	6 (0.8)	9 (1.0)	8 (0.8)
Basic	53 (1.2)	13 (0.7)	17 (0.8)	17 (0.9)
Intermediate	31 (1.0)	18 (0.6)	25 (0.8)	26 (0.8)
Proficient	16 (1.3)	22 (1.4)	31 (1.7)	31 (1.7)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-3. Estimates and standard errors for Figure 6-3. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: family members, friends, or coworkers, radio and television, by prose literacy level: 2003

Source and literacy level	None	A little	Some	A lot
Family, friends, or coworkers				
Below Basic	21 (1.2)	24 (1.4)	33 (1.5)	23 (1.3)
Basic	10 (0.5)	25 (0.8)	42 (1.0)	23 (0.8)
Intermediate	6 (0.3)	29 (0.7)	44 (0.8)	21 (0.7)
Proficient	4 (0.5)	34 (1.6)	44 (1.7)	18 (1.2)
Radio and television				
Below Basic	5 (0.5)	14 (0.9)	26 (1.5)	56 (1.7)
Basic	2 (0.2)	9 (0.5)	27 (0.9)	62 (1.0)
Intermediate	1 (0.1)	7 (0.3)	30 (0.8)	62 (0.9)
Proficient	1 (0.2)	9 (0.7)	32 (1.6)	58 (1.7)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-4. Estimates and standard errors for Figure 6-4. Percentage of adults who volunteered during the past year, by prose and document literacy level: 2003

Literacy scale and literacy level	Never	Less than once a week	Once a week or more
Prose			
Below Basic	83 (1.2)	8 (0.8)	10 (0.9)
Basic	69 (1.0)	16 (0.8)	15 (0.8)
Intermediate	55 (0.9)	25 (0.8)	20 (0.7)
Proficient	43 (1.8)	32 (1.7)	25 (1.6)
Document			
Below Basic	82 (1.4)	9 (0.9)	10 (1.1)
Basic	69 (1.1)	16 (0.8)	14 (0.9)
Intermediate	57 (0.9)	24 (0.7)	19 (0.7)
Proficient	47 (2.1)	29 (1.8)	24 (2.0)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-5. Estimates and standard errors for Figure 6-5. Percentage of adults who sent or received e-mail messages and found information on the Internet, by prose literacy level: 2003

Source and literacy level	Never	Less than once a week	Once a week	A few times a week	Every day
E-mail					
Below Basic	80 (1.4)	4 (0.6)	3 (0.5)	5 (0.6)	8 (1.0)
Basic	52 (1.3)	9 (0.6)	5 (0.4)	11 (0.6)	24 (1.2)
Intermediate	24 (1.0)	10 (0.5)	5 (0.3)	14 (0.6)	48 (1.1)
Proficient	8 (0.9)	6 (0.9)	4 (0.7)	15 (1.2)	67 (1.8)
Internet					
Below Basic	77 (1.4)	6 (0.7)	3 (0.5)	7 (0.7)	7 (0.9)
Basic	46 (1.3)	14 (0.7)	7 (0.5)	14 (0.7)	20 (1.1)
Intermediate	20 (0.9)	14 (0.6)	8 (0.4)	22 (0.7)	35 (1.0)
Proficient	6 (0.7)	11 (1.1)	9 (1.1)	24 (1.5)	49 (2.1)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-6. Estimates and standard errors for Figure 6-6. Percentage of adults who sent or received e-mail messages and found information on the Internet, by document literacy level: 2003

Source and literacy level	Never	Less than once a week	Once a week	A few times a week	Every day
E-mail					
Below Basic	82 (1.4)	4 (0.7)	2 (0.4)	5 (0.6)	8 (1.1)
Basic	55 (1.4)	9 (0.8)	4 (0.5)	10 (0.6)	22 (1.3)
Intermediate	26 (0.9)	10 (0.5)	5 (0.3)	14 (0.5)	46 (1.1)
Proficient	9 (1.0)	6 (1.2)	4 (1.0)	16 (1.4)	65 (2.3)
Internet					
Below Basic	79 (1.4)	6 (0.8)	3 (0.5)	7 (0.8)	6 (0.9)
Basic	50 (1.4)	12 (0.8)	6 (0.6)	14 (0.8)	18 (1.1)
Intermediate	21 (0.9)	15 (0.6)	9 (0.5)	20 (0.6)	35 (1.0)
Proficient	8 (0.9)	12 (1.6)	9 (1.4)	26 (1.9)	46 (2.5)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table D6-7. Estimates and standard errors for Figure 6-7. Percentage of adults who sent or received e-mail messages and found information on the Internet, by quantitative literacy level: 2003

Source and literacy level	Never	Less than once a week	Once a week	A few times a week	Every day
E-mail					
Below Basic	74 (1.3)	6 (0.7)	3 (0.4)	6 (0.6)	10 (0.9)
Basic	41 (1.2)	11 (0.6)	5 (0.4)	12 (0.6)	32 (1.1)
Intermediate	21 (1.0)	9 (0.6)	5 (0.4)	15 (0.6)	51 (1.1)
Proficient	9 (1.0)	5 (0.9)	3 (0.6)	14 (1.2)	69 (1.8)
Internet					
Below Basic	69 (1.4)	8 (0.7)	5 (0.5)	9 (0.7)	9 (0.8)
Basic	36 (1.2)	14 (0.7)	8 (0.5)	18 (0.7)	25 (1.0)
Intermediate	18 (0.9)	15 (0.7)	9 (0.5)	22 (0.8)	37 (1.0)
Proficient	8 (0.9)	10 (1.2)	8 (1.0)	25 (1.6)	50 (1.9)

NOTE: Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.



Additional Analyses

Additional Tables for Chapter 3: Education and Literacy

Table E-1. Percentage of adults in the *Below Basic* and *Basic* quantitative literacy levels who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003

Literacy level	Currently enrolled	Took class less than 2 years ago	Took class 2–5 years ago	Took class more than 5 years ago	Never took class
Below Basic	4 (0.9)	8 (1.1)	10 (1.2)	18 (1.5)	60 (2.0)
Basic	4 (1.2)	14 (2.1)	13 (2.0)	28 (2.5)	41 (2.8)

NOTE: This table is an extension of table 3-4 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Results are not reported for the document scale because the model did not converge for this scale.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-2. Percentage of adults in each quantitative literacy level who learned English at 16 years of age or older, by enrollment status in an adult English as a Second Language class: 2003

Enrollment status	Below Basic	Basic	Intermediate	Proficient
Never enrolled	73 (2.1)	15 (1.2)	9 (1.0)	3 (0.6)
Previously enrolled	58 (2.2)	28 (1.5)	12 (1.2)	3 (0.6)
Currently enrolled	68 (7.9)	22 (4.6)	10 (3.9)	1 (0.7)

NOTE: This table is an extension of figure 3-4 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Results are not reported for the document scale because the model did not converge for this scale.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-3. Average prose literacy scores of adults, by whether they had received information technology certification: 2003

Certification status	Average score
Certification	291 (2.0)
No certification	273 (1.4)

NOTE: This table is an extension of figure 3-5 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-4. Average prose literacy scores for adults who had received information technology certification, by highest educational attainment: 2003

Educational attainment	Average score
Less than/some high school	255 (10.4)
High school graduate/GED	274 (3.9)
Some college/associate's degree	292 (3.1)
College graduate/postsecondary	313 (4.0)

NOTE: This table is an extension of figure 3-6 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Additional Tables for Chapter 4: Employment, Earnings, and Job Training

Table E-5. Percentage of adults who thought their reading skills limited their job opportunities, by quantitative literacy level: 2003

Literacy level	Not at all	A little	Some	A lot
Below Basic	40 (1.6)	15 (1.0)	21 (1.2)	25 (1.5)
Basic	72 (1.0)	10 (0.6)	11 (0.7)	7 (0.5)
Intermediate	86 (0.7)	6 (0.5)	5 (0.5)	3 (0.3)
Proficient	94 (0.8)	4 (0.6)	1 (0.4)	1 (0.3)

NOTE: This table is an extension of figure 4-4 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-6. Percentage of adults who thought their mathematics skills limited their job opportunities, by prose and document literacy level: 2003

Literacy scale and literacy level	Not at all	A little	Some	A lot
Prose				
Below Basic	38 (1.9)	15 (1.1)	18 (1.3)	30 (1.8)
Basic	61 (1.2)	14 (0.7)	15 (0.8)	10 (0.7)
Intermediate	76 (0.8)	11 (0.5)	8 (0.5)	4 (0.4)
Proficient	87 (1.0)	9 (0.8)	3 (0.5)	2 (0.4)
Document				
Below Basic	39 (2.1)	15 (1.3)	16 (1.4)	31 (2.0)
Basic	60 (1.3)	14 (0.8)	15 (0.9)	11 (0.8)
Intermediate	75 (0.8)	11 (0.5)	9 (0.5)	5 (0.4)
Proficient	84 (1.4)	9 (1.0)	4 (0.8)	3 (0.4)

NOTE: This table is an extension of figure 4-5 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-7. Percentage of adults who thought their computer skills limited their job opportunities, by prose literacy level: 2003

Literacy level	Not at all	A little	Some	A lot
Below Basic	28 (1.8)	8 (0.9)	13 (1.1)	51 (2.0)
Basic	46 (1.4)	14 (0.7)	15 (0.7)	26 (1.2)
Intermediate	58 (1.1)	18 (0.7)	12 (0.6)	12 (0.7)
Proficient	72 (1.6)	15 (1.2)	8 (0.9)	5 (0.6)

NOTE: This table is an extension of figure 4-6 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-8. Percentage of adults in each quantitative literacy level who thought their reading skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized reading: 2003

Participation	Below Basic	Basic	Intermediate	Proficient
Participated	46 (5.2)	33 (3.8)	19 (3.8)	2 (1.2)
Did not participate	53 (1.6)	31 (1.1)	14 (0.8)	2 (0.4)

NOTE: This table is an extension of figure 4-7 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-9. Percentage of adults in each prose and document literacy level who thought their mathematics skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized mathematics: 2003

Literacy scale and participation	Below Basic	Basic	Intermediate	Proficient
Prose				
Participated	20 (3.2)	40 (3.2)	35 (3.6)	6 (1.7)
Did not participate	32 (1.6)	35 (1.1)	29 (1.2)	4 (0.5)
Document				
Participated	18 (3.4)	27 (3.3)	49 (4.3)	6 (2.3)
Did not participate	28 (1.5)	28 (0.9)	38 (1.3)	6 (0.7)

NOTE: This table is an extension of figure 4-8 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-10. Percentage of adults in each prose and document literacy level who thought their computer skills limited their job opportunities “a lot” or “some,” by whether or not they participated in job training that emphasized computers: 2003

Literacy scale and participation	Below Basic	Basic	Intermediate	Proficient
Prose				
Participated	11 (1.9)	29 (2.2)	49 (2.6)	12 (1.9)
Did not participate	27 (1.2)	35 (0.9)	33 (1.0)	5 (0.5)
Document				
Participated	7 (1.8)	25 (2.8)	62 (3.5)	7 (2.2)
Did not participate	24 (1.1)	27 (0.7)	42 (1.0)	7 (0.5)

NOTE: This table is an extension of figure 4-9 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. Adults who reported they were retired are not included in these analyses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Additional Tables for Chapter 5: Literacy and the Family

Table E-11. Percentage of parents who read to or with their children under age 8 during the previous week, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Never	1 to 2 days	3 to 4 days	5 or more days
Document				
Below Basic	47 (3.3)	15 (2.4)	16 (2.6)	22 (3.1)
Basic	26 (1.7)	18 (1.6)	21 (1.8)	36 (2.3)
Intermediate	18 (1.0)	18 (1.1)	21 (1.3)	43 (1.7)
Proficient	16 (2.0)	15 (2.2)	20 (2.9)	49 (3.7)
Quantitative				
Below Basic	33 (2.2)	17 (1.6)	19 (1.8)	31 (2.4)
Basic	23 (1.3)	18 (1.2)	20 (1.4)	39 (1.9)
Intermediate	18 (1.2)	17 (1.2)	22 (1.4)	44 (1.9)
Proficient	16 (2.0)	15 (1.8)	22 (2.4)	48 (3.2)

NOTE: This table is an extension of figure 5-1 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-12. Percentage of parents whose children between the ages of 3 and 5 knew the letters of the alphabet, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Child already knows letters
Document	
Below Basic	11 (3.4)
Basic	20 (2.9)
Intermediate	26 (2.1)
Proficient	30 (5.2)
Quantitative	
Below Basic	12 (2.2)
Basic	23 (2.2)
Intermediate	27 (2.3)
Proficient	36 (4.4)

NOTE: This table is an extension of figure 5-2 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-13. Percentage of parents with children who did not already know the letters of the alphabet who tried to teach their children between the ages of 3 and 5 the letters of the alphabet during the previous month, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Less than once a week	Once a week	Everyday/a few times a week
Document				
Below Basic	24 (4.5)	7 (4.0)	11 (2.9)	59 (5.6)
Basic	7 (1.2)	11 (2.8)	9 (1.5)	73 (3.3)
Intermediate	6 (1.0)	12 (1.9)	9 (1.2)	72 (2.4)
Proficient	12 (3.0)	9 (4.2)	15 (3.0)	65 (5.2)
Quantitative				
Below Basic	14 (2.4)	8 (2.4)	10 (1.9)	68 (3.5)
Basic	8 (1.3)	12 (2.1)	9 (1.3)	72 (2.6)
Intermediate	6 (1.3)	12 (2.1)	10 (1.3)	72 (2.7)
Proficient	9 (2.7)	11 (3.8)	15 (3.0)	66 (4.9)

NOTE: This table is an extension of figure 5-3 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-14. Percentage of parents who tried to teach their children under the age of 8 to read words during the previous month, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Child already reads well	Never	Less than once a week	Once a week	Everyday/ a few times a week
Document					
Below Basic	4 (1.5)	27 (3.0)	8 (1.9)	8 (1.8)	53 (3.6)
Basic	4 (0.8)	20 (1.5)	7 (1.1)	8 (1.0)	61 (2.1)
Intermediate	4 (0.6)	20 (1.2)	9 (0.8)	7 (0.7)	60 (1.4)
Proficient	4 (1.2)	24 (2.3)	9 (1.7)	7 (1.5)	56 (3.3)
Quantitative					
Below Basic	4 (0.9)	21 (2.1)	7 (1.1)	8 (1.3)	59 (2.4)
Basic	3 (0.6)	23 (1.5)	8 (0.8)	7 (0.8)	60 (1.7)
Intermediate	4 (0.7)	21 (1.4)	8 (0.8)	7 (0.8)	59 (1.6)
Proficient	6 (1.2)	19 (2.3)	11 (1.7)	8 (1.5)	57 (3.0)

NOTE: This table is an extension of table 5-1 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-15. Percentage of parents who engaged in rhyming activities with their children under the age of 8 during the previous month, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Less than once a week	Once a week	Everyday/ a few times a week
Document				
Below Basic	22 (2.6)	10 (1.8)	10 (2.0)	58 (3.4)
Basic	14 (1.3)	8 (0.9)	9 (1.1)	69 (1.9)
Intermediate	11 (0.8)	7 (0.7)	11 (0.8)	71 (1.3)
Proficient	10 (1.6)	10 (1.5)	12 (2.0)	68 (2.9)
Quantitative				
Below Basic	16 (1.6)	10 (1.3)	11 (1.1)	64 (2.2)
Basic	10 (0.9)	8 (0.8)	10 (0.9)	72 (1.5)
Intermediate	11 (1.0)	7 (0.8)	10 (0.8)	71 (1.5)
Proficient	14 (1.9)	9 (1.5)	12 (1.6)	66 (2.7)

NOTE: This table is an extension of figure 5-4 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-16. Percentage of parents who talked to their school-age children about things they studied in school, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Once a week or less	A few times a week	Every day
Document				
Below Basic	10 (1.6)	13 (2.0)	24 (2.8)	54 (3.2)
Basic	3 (0.5)	12 (1.2)	21 (1.6)	64 (1.9)
Intermediate	2 (0.3)	9 (0.7)	21 (1.1)	69 (1.2)
Proficient	2 (0.5)	5 (1.2)	21 (2.3)	72 (2.6)
Quantitative				
Below Basic	5 (0.9)	13 (1.5)	23 (1.8)	59 (2.2)
Basic	3 (0.4)	10 (1.0)	20 (1.2)	67 (1.4)
Intermediate	2 (0.3)	8 (0.9)	21 (1.3)	69 (1.4)
Proficient	2 (0.6)	6 (1.4)	24 (2.1)	68 (2.4)

NOTE: This table is an extension of figure 5-5 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-17. Percentage of parents who helped or worked with their school-age child on homework, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Never	Once a week or less	A few times a week	Every day
Document				
Below Basic	28 (2.5)	20 (2.4)	17 (2.2)	36 (2.8)
Basic	14 (1.1)	19 (1.4)	25 (1.7)	42 (1.8)
Intermediate	10 (0.7)	21 (1.0)	30 (1.2)	39 (1.2)
Proficient	10 (1.2)	27 (2.4)	31 (2.8)	33 (2.7)
Quantitative				
Below Basic	19 (1.6)	17 (1.7)	21 (1.8)	43 (2.1)
Basic	12 (0.9)	19 (1.1)	28 (1.4)	40 (1.5)
Intermediate	10 (0.8)	22 (1.2)	31 (1.4)	37 (1.4)
Proficient	11 (1.4)	28 (2.4)	30 (2.5)	31 (2.5)

NOTE: This table is an extension of figure 5-6 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-18. Percentage of parents whose children ages 2 through 17 often saw them reading, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Often sees adult reading
Document	
Below Basic	61 (2.8)
Basic	73 (1.5)
Intermediate	80 (1.0)
Proficient	89 (1.5)
Quantitative	
Below Basic	67 (2.0)
Basic	76 (1.3)
Intermediate	82 (1.2)
Proficient	87 (1.7)

NOTE: This table is an extension of figure 5-7 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-19. Percentage of adults who lived with children under age 18 and had reading materials in the home, by document and quantitative literacy level: 2003

Literacy scale and literacy level	None	Some	Many
Document			
Below Basic	19 (1.9)	25 (2.1)	56 (2.7)
Basic	4 (0.5)	16 (1.1)	80 (1.3)
Intermediate	2 (0.2)	9 (0.6)	90 (0.7)
Proficient	1 (0.1)	5 (0.9)	94 (0.9)
Quantitative			
Below Basic	13 (1.2)	23 (1.4)	65 (1.9)
Basic	2 (0.3)	11 (0.7)	87 (0.9)
Intermediate	1 (0.2)	7 (0.6)	92 (0.6)
Proficient	# (0.1)	6 (1.0)	94 (1.0)

Rounds to zero.

NOTE: This table is an extension of figure 5-8 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-20. Percentage of parents whose children ages 2 through 17 had their own books, by document and quantitative literacy level: 2003

Literacy scale and literacy level	Child has own books
Document	
Below Basic	92 (1.3)
Basic	97 (0.4)
Intermediate	99 (0.2)
Proficient	100 (0.2)
Quantitative	
Below Basic	95 (0.8)
Basic	98 (0.3)
Intermediate	99 (0.3)
Proficient	100 (0.2)

NOTE: This table is an extension of figure 5-9 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-21. Percentage of all adults and adults living in households with children under age 18 who had a computer in their home with word processing capability or Internet access, by document and quantitative literacy level: 2003

Computer capability, literacy scale, and literacy level	All adults	Adults living with children
Computer with word processing capability		
Document		
Below Basic	39 (1.9)	51 (2.9)
Basic	63 (1.3)	73 (1.5)
Intermediate	83 (0.7)	87 (0.8)
Proficient	93 (0.8)	94 (1.0)
Quantitative		
Below Basic	45 (1.5)	56 (2.0)
Basic	73 (1.0)	81 (1.1)
Intermediate	87 (0.7)	92 (0.7)
Proficient	94 (0.7)	97 (0.6)
Computer with Internet access		
Document		
Below Basic	32 (1.8)	40 (2.9)
Basic	56 (1.3)	65 (1.8)
Intermediate	77 (0.8)	81 (1.0)
Proficient	88 (1.2)	89 (1.5)
Quantitative		
Below Basic	38 (1.5)	13 (0.7)
Basic	66 (1.1)	32 (0.8)
Intermediate	81 (0.9)	39 (0.8)
Proficient	90 (1.0)	17 (0.9)

NOTE: This table is an extension of figure 5-10 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-22. Percentage of parents who were involved in one to four activities in their children's schools, by document and quantitative literacy level: 2003

Literacy scale and literacy level	None	One	Two	Three	Four
Document					
Below Basic	18 (2.7)	18 (2.3)	22 (2.7)	22 (2.7)	21 (2.5)
Basic	11 (1.3)	14 (1.3)	22 (1.6)	28 (1.7)	25 (1.7)
Intermediate	9 (0.9)	11 (0.8)	20 (1.1)	30 (1.2)	30 (1.3)
Proficient	9 (1.6)	8 (1.4)	18 (2.3)	30 (2.8)	36 (2.9)
Quantitative					
Below Basic	13 (2.0)	17 (1.6)	21 (1.9)	27 (1.8)	23 (1.9)
Basic	11 (1.1)	11 (1.0)	21 (1.2)	29 (1.4)	28 (1.4)
Intermediate	9 (1.0)	10 (0.9)	20 (1.3)	29 (1.3)	31 (1.5)
Proficient	9 (1.8)	11 (1.4)	20 (2.0)	28 (2.2)	33 (2.3)

NOTE: This table is an extension of figure 5-11 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table. *Parents* includes parents, grandparents, and guardians who had a child living with them 10 or more days a month.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Additional Tables for Chapter 6: Community and Civic Involvement

Table E-23. Percentage of adult citizens of voting age who voted in the 2000 presidential election, by quantitative literacy level: 2003

Literacy level	Percent
Below Basic	53 (1.7)
Basic	66 (1.1)
Intermediate	75 (1.0)
Proficient	84 (1.3)

NOTE: This table is an extension of figure 6-1 in the text. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-24. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: newspapers, magazines, books or brochures, the Internet, by document and quantitative literacy level: 2003

Source, literacy scale, and literacy level	None	A little	Some	A lot
Newspapers				
Document				
Below Basic	27 (1.5)	24 (1.4)	27 (1.4)	23 (1.4)
Basic	12 (0.6)	21 (0.8)	35 (1.0)	31 (1.0)
Intermediate	9 (0.4)	23 (0.6)	35 (0.7)	33 (0.7)
Proficient	10 (0.8)	30 (1.7)	32 (1.7)	29 (1.8)
Quantitative				
Below Basic	21 (1.1)	23 (1.0)	31 (1.1)	25 (1.1)
Basic	10 (0.5)	23 (0.7)	36 (0.8)	31 (0.8)
Intermediate	9 (0.5)	24 (0.7)	35 (0.8)	33 (0.8)
Proficient	9 (0.8)	26 (1.4)	31 (1.4)	35 (1.6)
Magazines				
Document				
Below Basic	40 (1.7)	24 (1.5)	26 (1.4)	10 (0.9)
Basic	25 (0.9)	28 (1.0)	35 (1.0)	13 (0.7)
Intermediate	19 (0.6)	34 (0.8)	36 (0.8)	10 (0.5)
Proficient	20 (1.2)	40 (1.9)	33 (1.7)	7 (1.0)
Quantitative				
Below Basic	35 (1.3)	24 (1.1)	29 (1.2)	12 (0.7)
Basic	21 (0.7)	32 (0.9)	36 (0.9)	11 (0.5)
Intermediate	18 (0.7)	36 (0.9)	36 (0.9)	10 (0.5)
Proficient	20 (1.3)	37 (1.6)	34 (1.6)	9 (0.8)
Books or brochures				
Document				
Below Basic	41 (1.7)	24 (1.4)	26 (1.4)	9 (0.9)
Basic	25 (0.9)	28 (1.0)	35 (1.0)	13 (0.7)
Intermediate	21 (0.7)	34 (0.8)	35 (0.8)	11 (0.5)
Proficient	27 (1.6)	39 (1.9)	27 (1.7)	7 (0.9)
Quantitative				
Below Basic	35 (1.3)	25 (1.1)	30 (1.2)	11 (0.7)
Basic	23 (0.8)	31 (0.9)	35 (0.9)	12 (0.6)
Intermediate	21 (0.8)	35 (0.9)	34 (0.9)	10 (0.5)
Proficient	24 (1.4)	41 (1.7)	29 (1.6)	7 (0.8)
Internet				
Document				
Below Basic	78 (1.5)	6 (0.8)	8 (0.9)	7 (0.9)
Basic	56 (1.3)	12 (0.8)	16 (0.9)	16 (1.0)
Intermediate	32 (1.0)	18 (0.6)	24 (0.7)	26 (0.8)
Proficient	17 (1.5)	21 (1.8)	33 (2.0)	29 (2.1)
Quantitative				
Below Basic	70 (1.3)	8 (0.7)	10 (0.9)	11 (0.8)
Basic	45 (1.1)	15 (0.6)	20 (0.8)	20 (0.8)
Intermediate	29 (1.0)	19 (0.7)	27 (0.9)	26 (0.8)
Proficient	17 (1.4)	22 (1.4)	29 (1.7)	33 (1.6)

NOTE: This table is an extension of figure 6-2 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-25. Percentage of adults who got information about current events, public affairs, and the government from each of the following sources: family members, friends, or coworkers, radio and television, by document and quantitative literacy level: 2003

Source, literacy scale, and literacy level	None	A little	Some	A lot
Family, friends, or co-workers				
Document				
Below Basic	20 (1.3)	23 (1.4)	33 (1.7)	23 (1.4)
Basic	11 (0.6)	26 (0.9)	41 (1.1)	22 (0.8)
Intermediate	6 (0.3)	29 (0.7)	44 (0.8)	21 (0.6)
Proficient	5 (0.6)	31 (1.9)	45 (2.0)	19 (1.4)
Quantitative				
Below Basic	17 (0.9)	23 (1.0)	36 (1.3)	24 (1.0)
Basic	8 (0.4)	26 (0.7)	43 (0.9)	23 (0.7)
Intermediate	6 (0.4)	30 (0.7)	44 (0.9)	20 (0.7)
Proficient	6 (0.6)	36 (1.5)	43 (1.6)	15 (1.1)
Radio and television				
Document				
Below Basic	5 (0.6)	13 (1.0)	25 (1.6)	57 (1.8)
Basic	2 (0.2)	9 (0.5)	27 (1.0)	63 (1.1)
Intermediate	1 (0.1)	7 (0.3)	30 (0.7)	62 (0.8)
Proficient	2 (0.3)	10 (0.8)	32 (1.9)	57 (2.0)
Quantitative				
Below Basic	4 (0.4)	11 (0.7)	25 (1.1)	60 (1.3)
Basic	2 (0.2)	8 (0.4)	28 (0.8)	62 (0.9)
Intermediate	1 (0.2)	8 (0.4)	30 (0.8)	61 (0.9)
Proficient	1 (0.2)	9 (0.8)	33 (1.6)	57 (1.7)

NOTE: This table is an extension of figure 6-3 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

Table E-26. Percentage of adults who volunteered during the past year, by quantitative literacy level: 2003

Literacy level	Never	Less than once a week	Once a week or more
Below Basic	80 (1.0)	9 (0.8)	12 (0.8)
Basic	64 (0.9)	20 (0.8)	17 (0.8)
Intermediate	53 (1.0)	27 (0.9)	20 (0.8)
Proficient	47 (1.8)	29 (1.7)	24 (1.6)

NOTE: This table is an extension of figure 6-4 in the text. Detail may not sum to totals because of rounding. Standard errors are in parentheses. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

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