

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

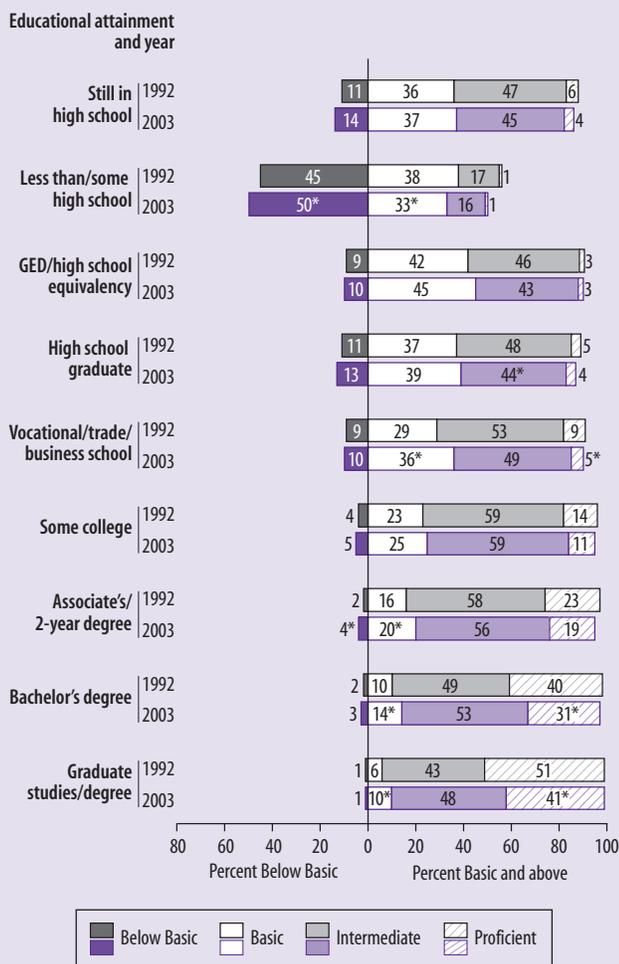
Postsecondary education in the United States takes a number of forms, including 2-year degree programs and community colleges; certificates or degrees from vocational, trade, or business schools; 4-year colleges and universities; and graduate studies after completion of a 4-year degree. In 2003, the 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

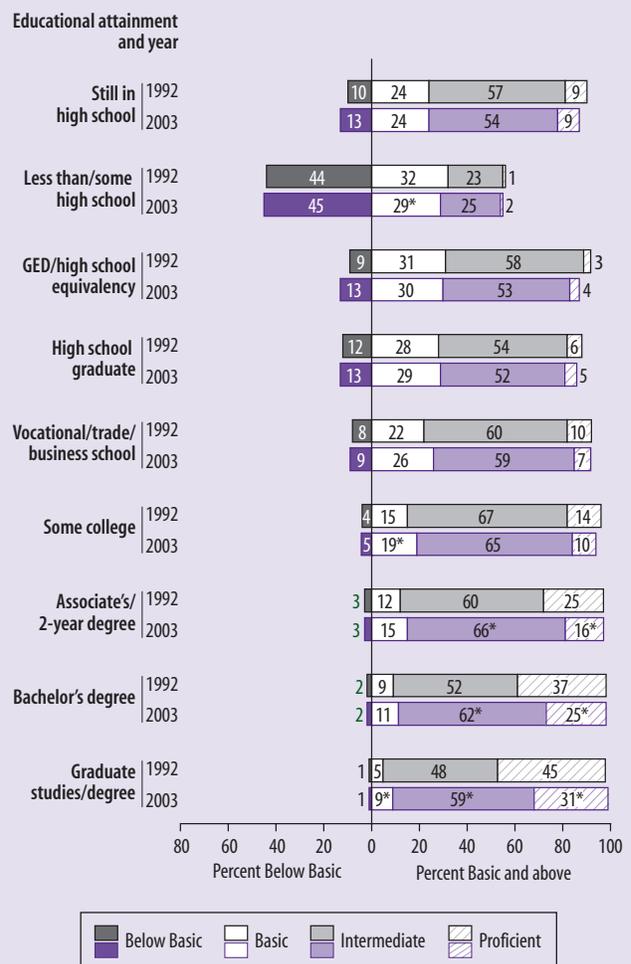
document scale, 31 percent of adults who had either received a graduate degree or taken graduate courses and 25 percent of adults who graduated from a 4-year college or university had *Proficient* literacy, compared with 16 percent of adults who ended their education with an associate's or 2-year degree;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

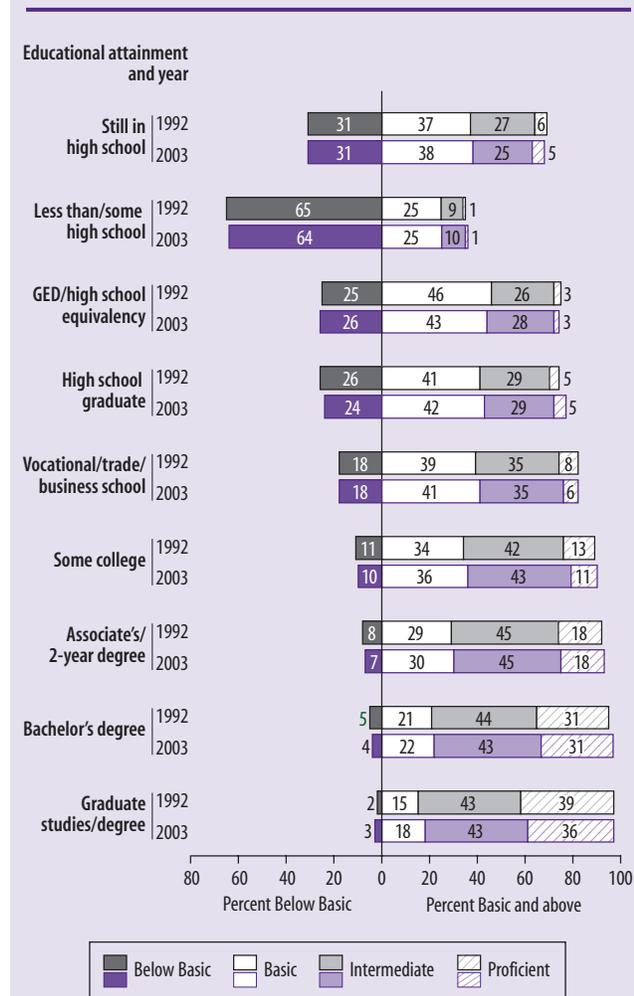
Highest Level of Educational Attainment by Race/Ethnicity

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

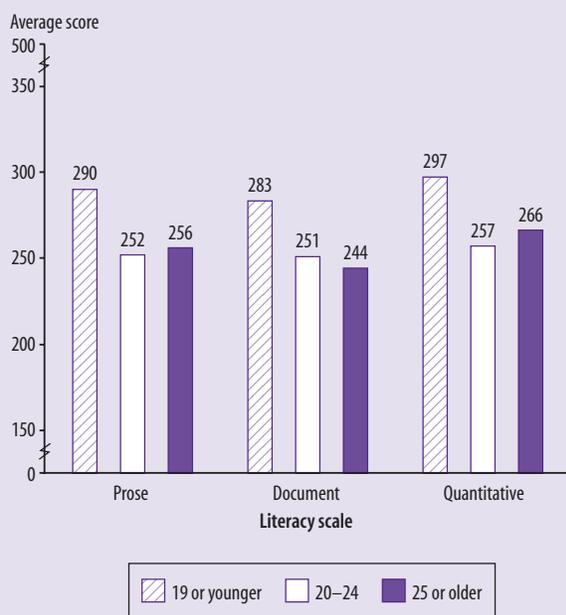
Adults who received their high school degree or college degree at an age that indicated they likely began school at the traditional age and continued straight through until graduation had higher levels of prose, document, and quantitative literacy than adults who received their degrees when they were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

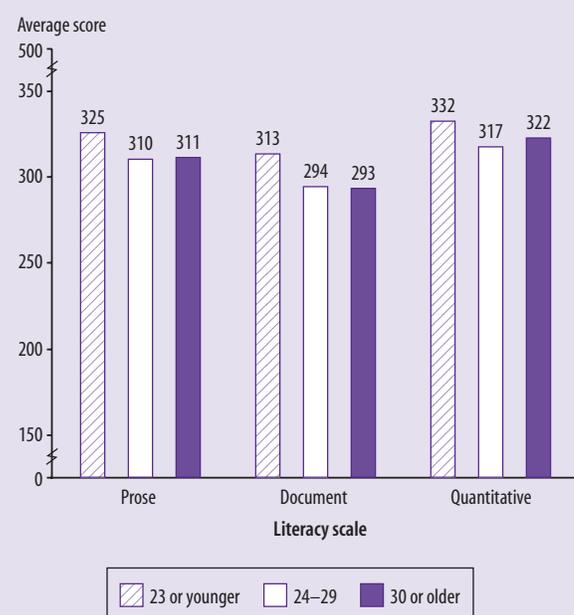
Figure 3-2. Average prose, document, and quantitative literacy scores of adults, by age obtained high school diploma or GED: 2003



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 |

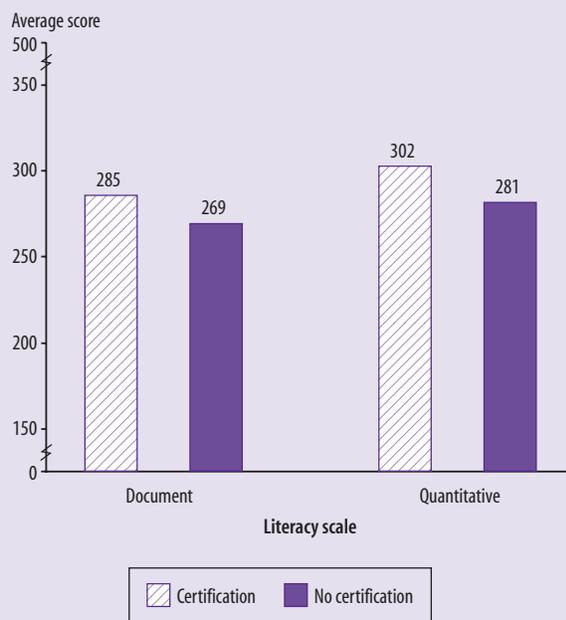
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this table.
 SOURCE: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

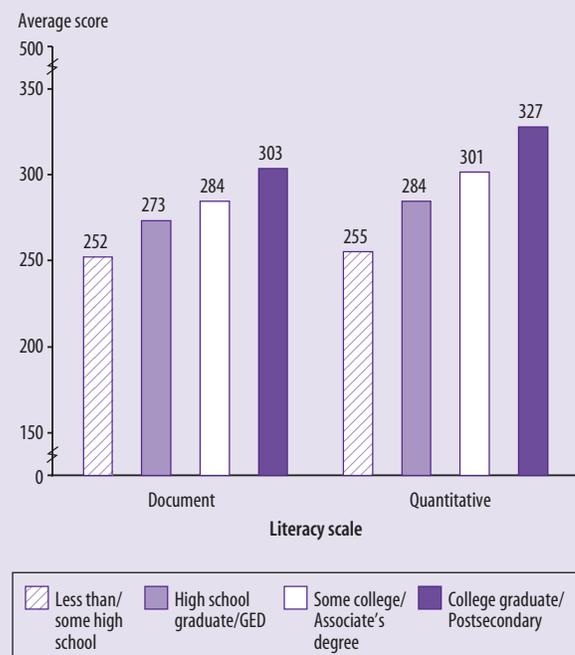


NOTE: Adults are defined as people 16 years of age and older living in households or prisons. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.

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

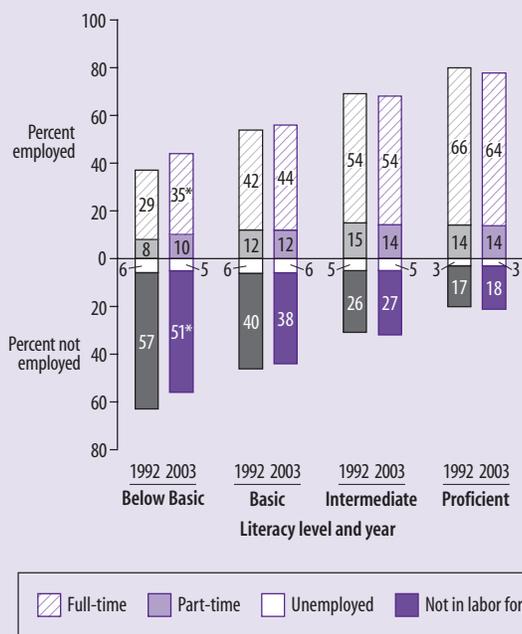
Employment Status

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

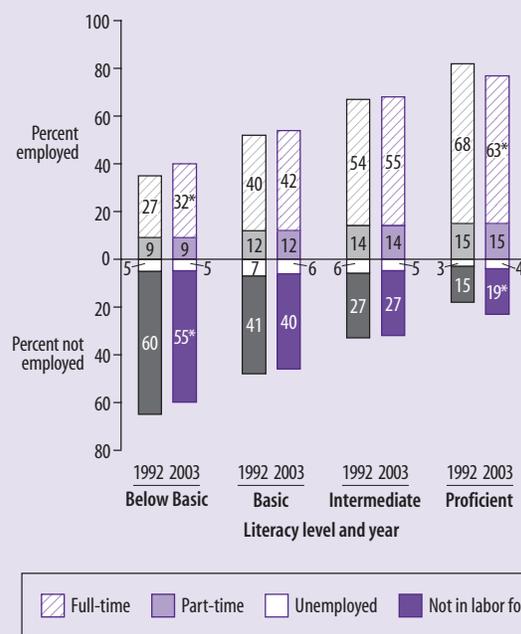


*Significantly different from 1992.

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.

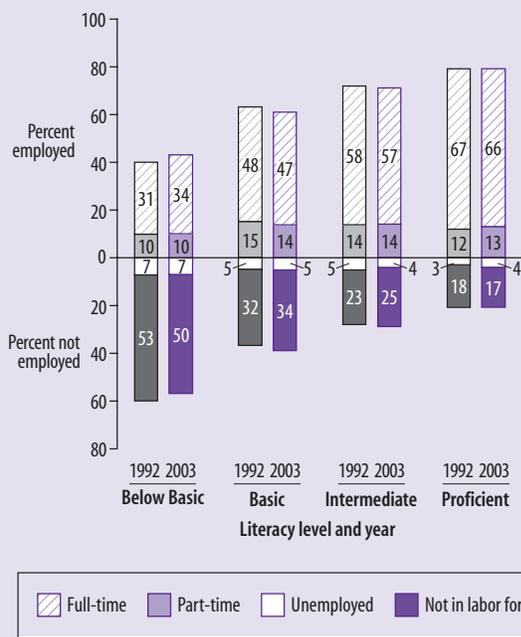
The percentages of adults with *Below Basic* prose and document literacy who were employed full-time increased between 1992 and 2003, but there was no statistically significant change on the quantitative scale. Between 1992 and 2003 there were also corresponding decreases in the percentages of adults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

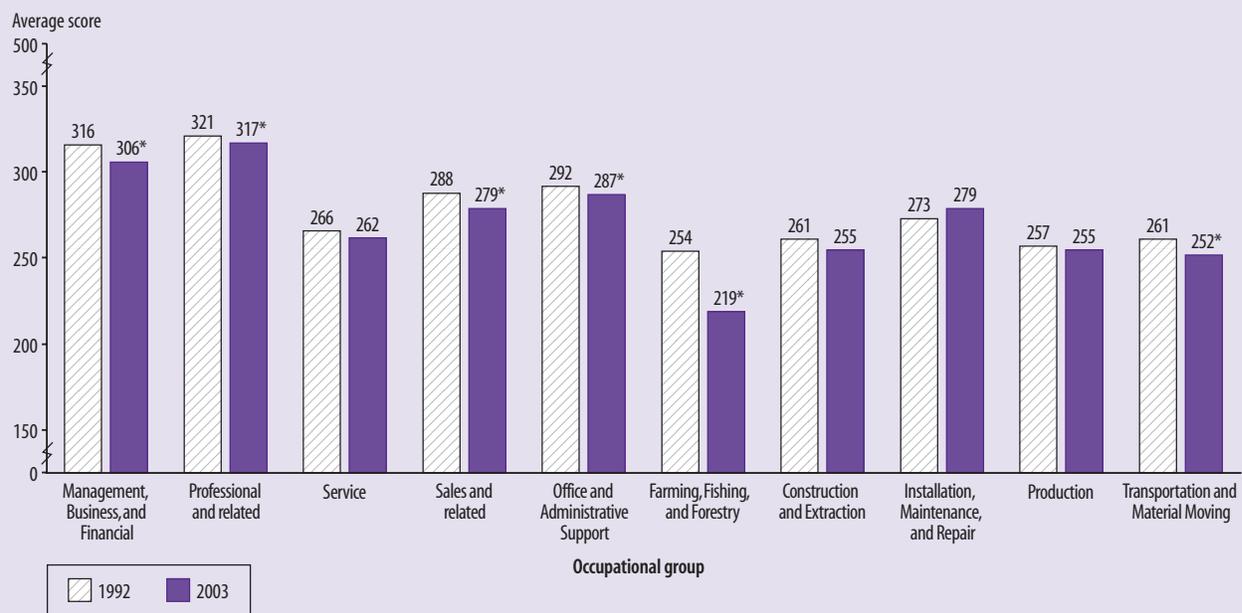
According to the U.S. Bureau of Labor Statistics, job growth in *Professional and related* and *Service* occupations is projected to account for over half the new jobs added to the nation's workforce from 2004 to 2014 (Hecker 2005). Because these occupational groups have very different educational requirements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

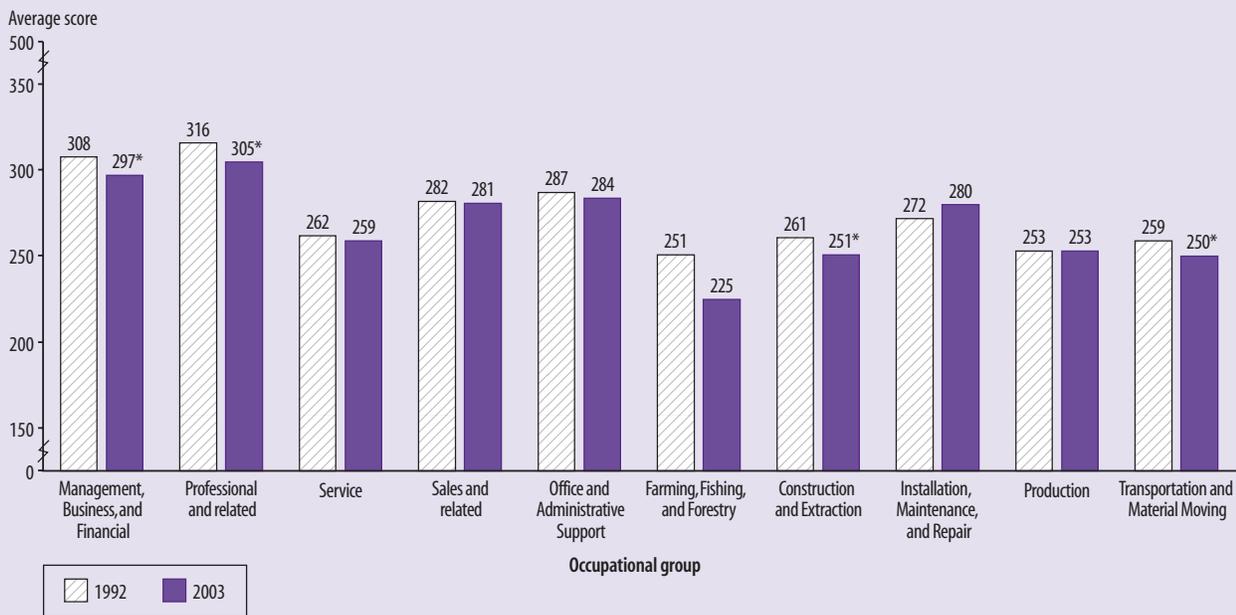
NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003 and 4 percent in 1992) are excluded from this figure. The 1992 and 2003 occupational groups were coded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

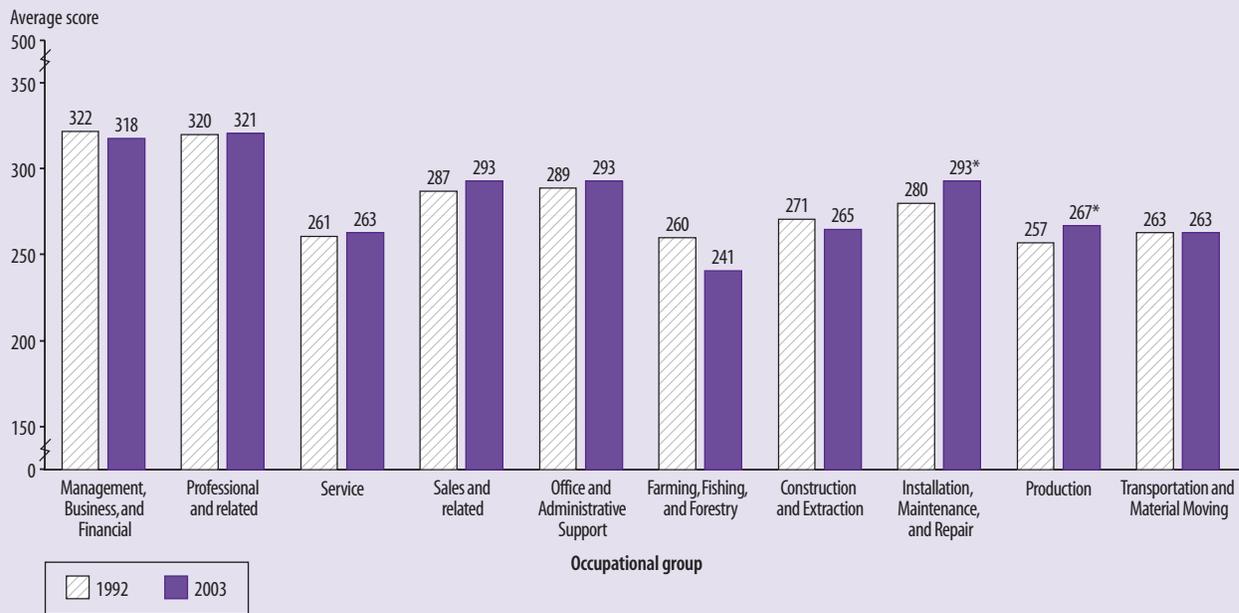


*Significantly different from 1992.

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

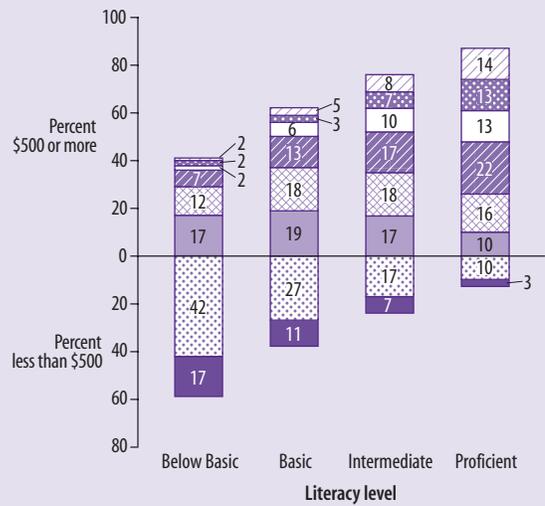


Figure 4-3b. Percentage of full-time employed adults in each weekly gross earnings category, by document literacy level: 2003



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.

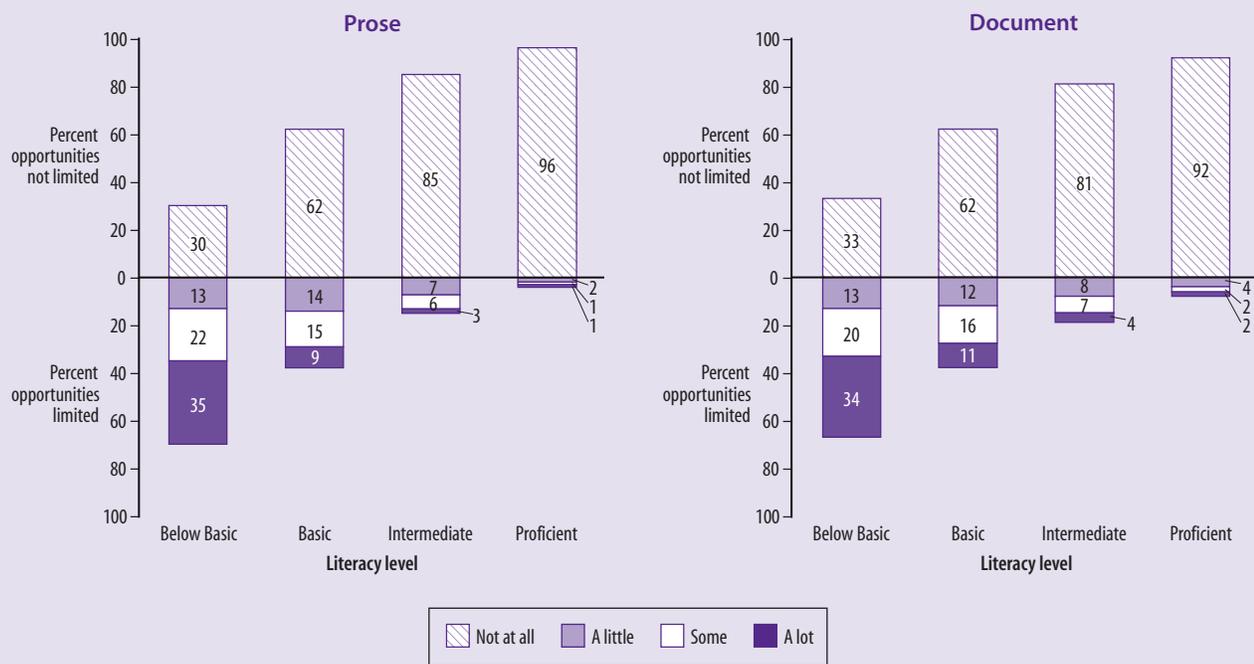
Job Skills and Job Training

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.

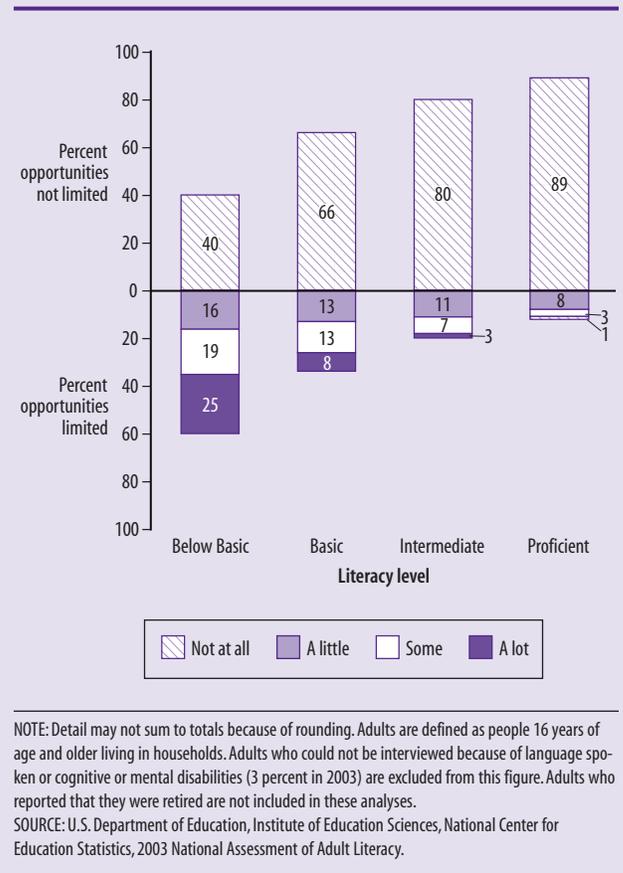
Thirty percent of adults with *Below Basic* prose literacy and 33 percent of adults with *Below Basic* document literacy indicated that their reading skills did “not at all” limit their job opportunities. Also, 62 percent of adults with *Basic* literacy indicated that their job opportunities were “not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

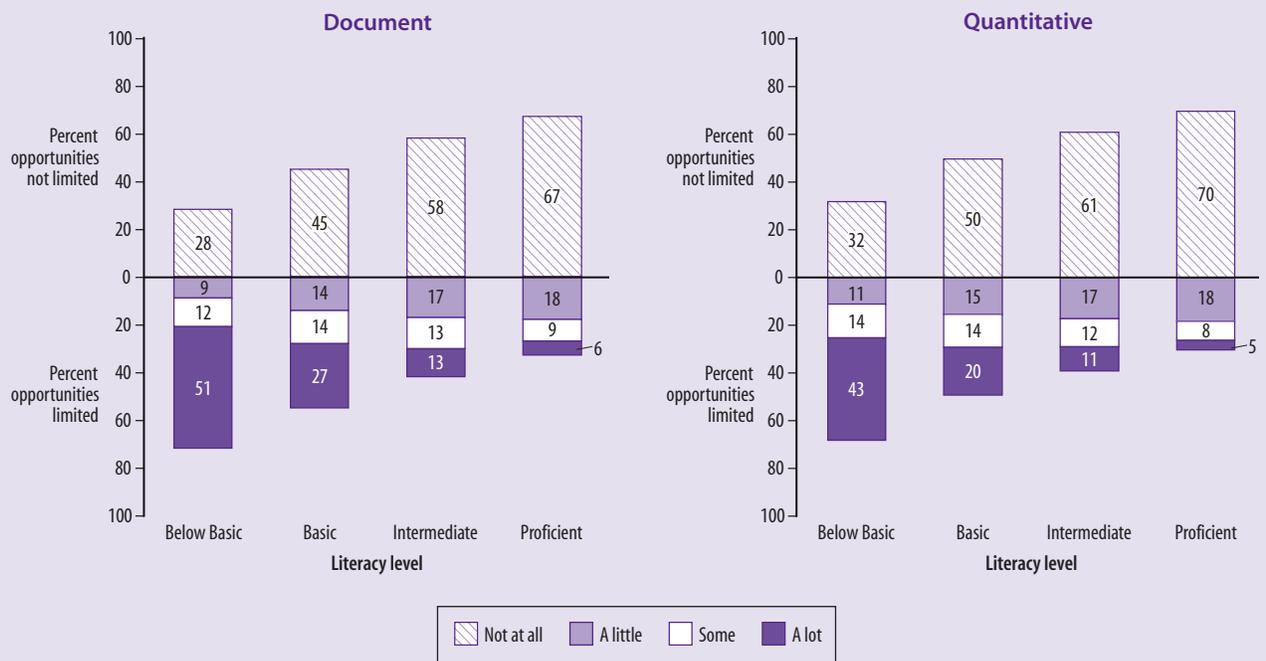
In 2003, 51 percent of adults with *Below Basic* document literacy and 43 percent of adults with *Below Basic* quantitative literacy believed that their job opportunities were limited “a lot” by their computer skills. Yet 28 percent of adults with *Below Basic* document literacy and 32 percent of adults 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.

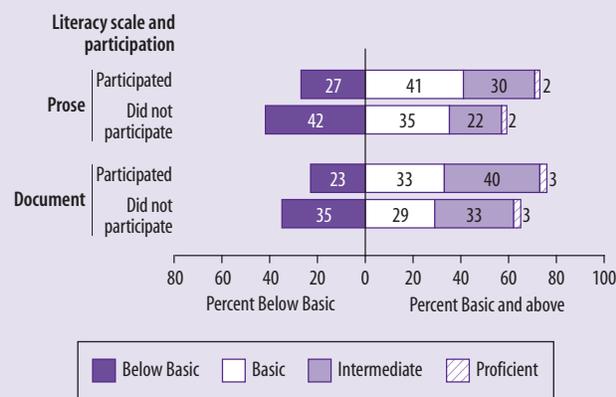
A lower percentage of adults who reported that their reading skills limited their job opportunities and who participated in job training activities with a reading focus had *Below Basic* prose literacy and a higher percentage had *Intermediate* prose literacy than adults who reported that their reading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

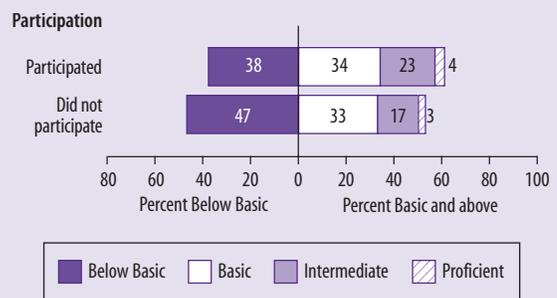
quantitative literacy than adults who reported that their computer skills limited their job opportunities and had not participated in job training with a computer focus (figure 4-9).

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



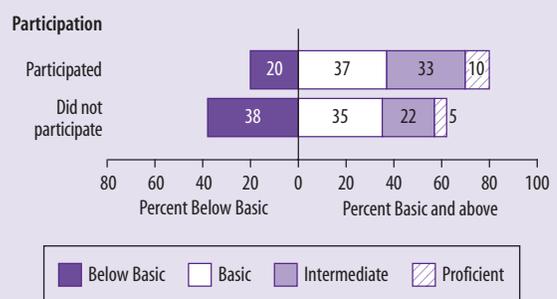
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. Adults who reported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

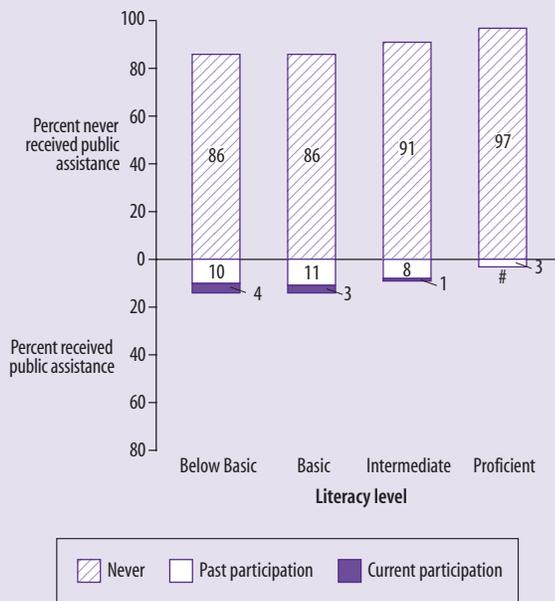
Public Assistance Participation¹⁰

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.

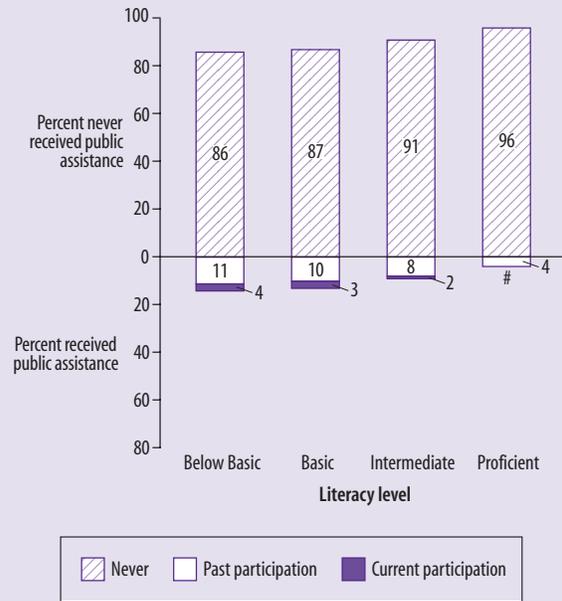
cy, 10 percent had previously received public assistance and 4 percent were currently receiving public assistance (figure 4-10a). For women with *Basic* prose literacy, 11 percent had previously received public assistance and 3 percent were currently receiving public assistance. In contrast, among women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



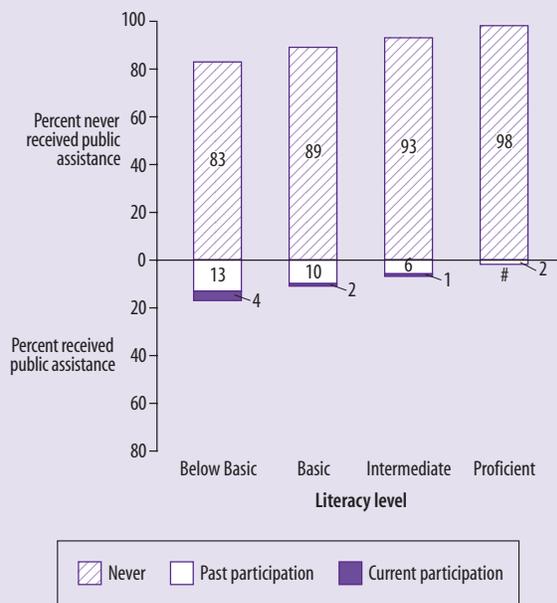
Rounds to zero.
 NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure.
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

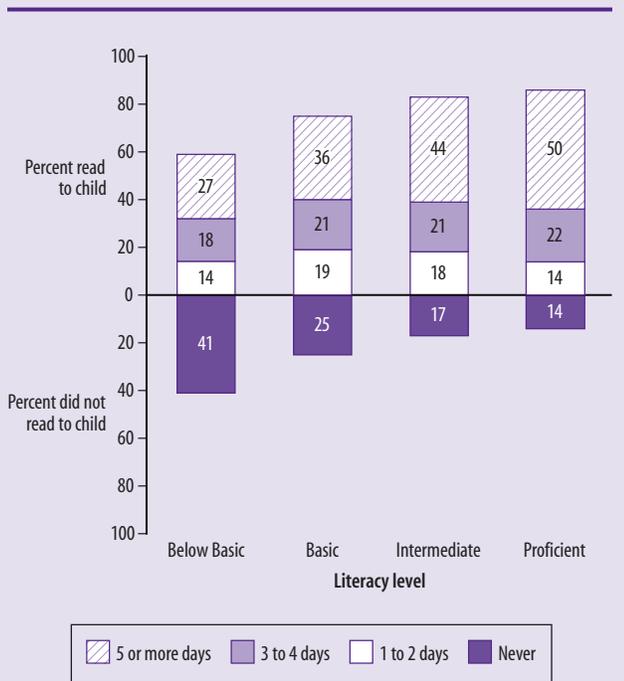
Reading to Children

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.

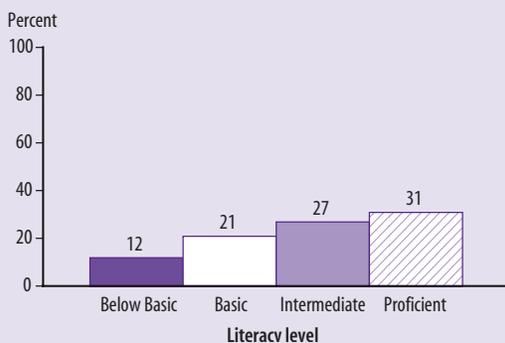
A higher percentage of parents with *Intermediate* or *Proficient* prose literacy than parents with *Basic* prose literacy reported that they had children between the ages of 3 and 5 who knew the letters of the alphabet. Additionally, a higher percentage of parents with *Basic*, *Intermediate*, or *Proficient*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

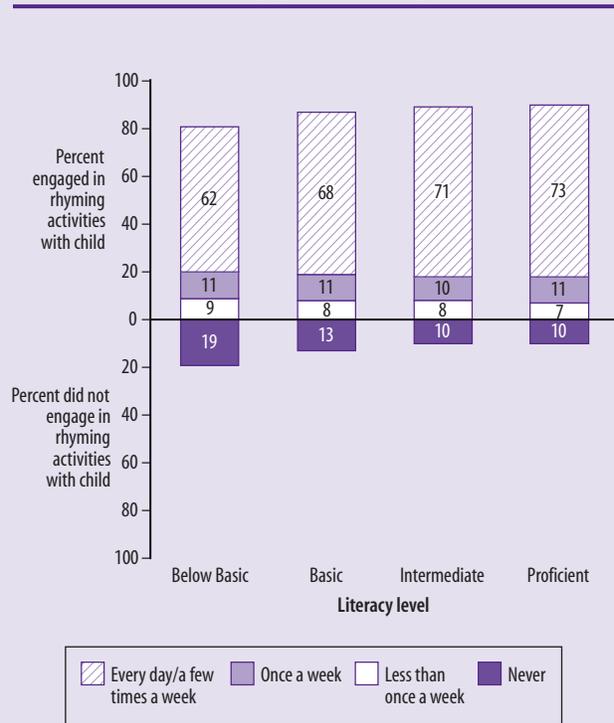
The ability to hear and understand rhymes is an important skill for children learning to read (Anthony and Lonigan 2004). Parents of young children often engage in a variety of activities that help make their children sensitive to the sounds of rhymes: singing songs, reciting nursery rhymes, or playing 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.

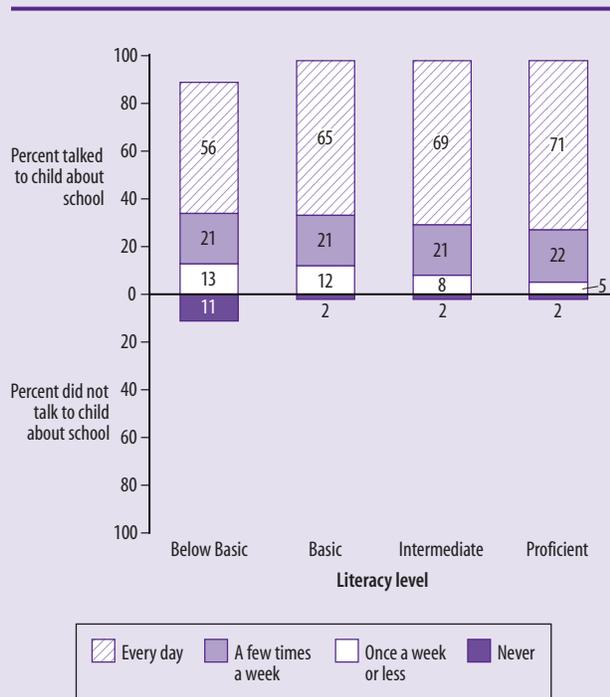
Educational Resources in the Home

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

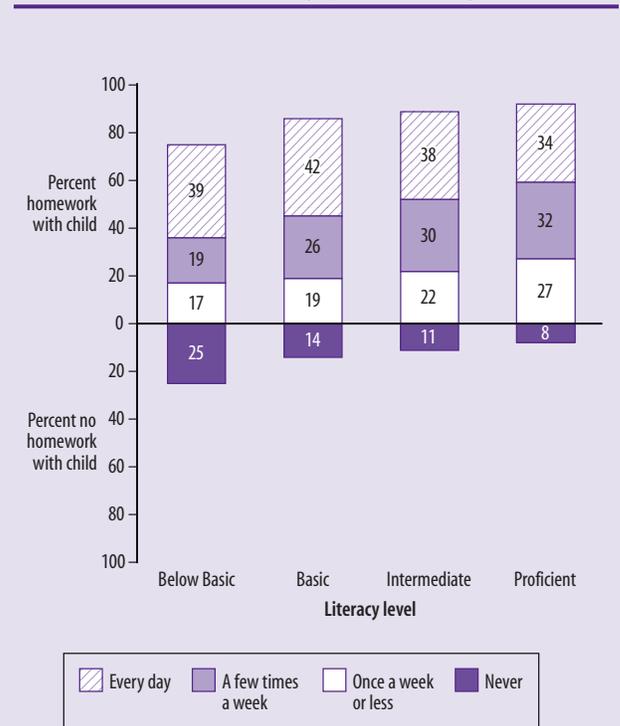
According to parents' self-reports, parents with high literacy levels were more likely to be seen reading by their children. Ninety percent of adults with *Proficient* prose literacy, 81 percent of adults with *Intermediate*

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.

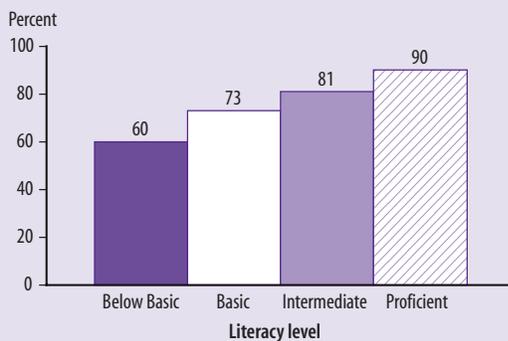
prose literacy, 73 percent of adults with *Basic* prose literacy, and 60 percent of adults with *Below Basic* prose literacy said that their children ages 2 through 17 often saw them reading (figure 5-7).

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

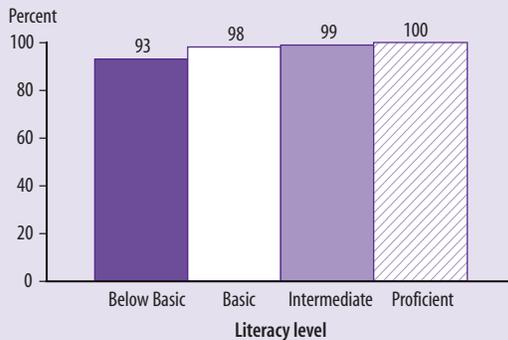


Rounds to zero.
NOTE: Detail may not sum to totals because of rounding. Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents*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



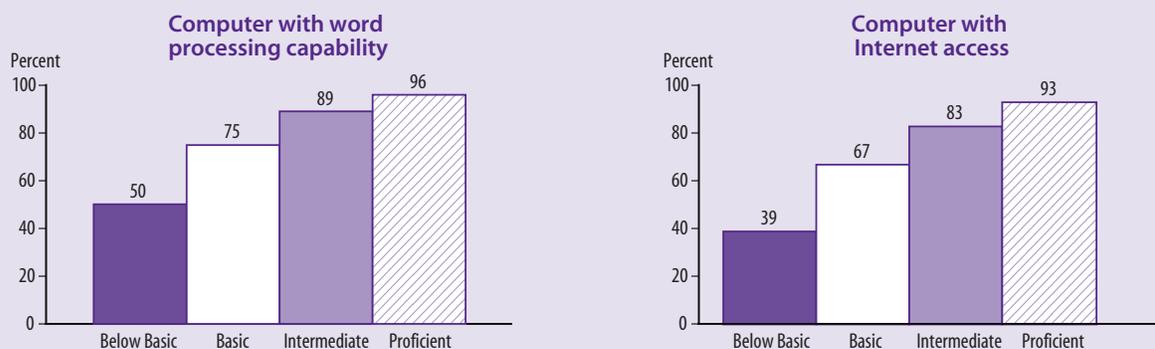
NOTE: Adults are defined as people 16 years of age and older living in households. Adults who could not be interviewed because of language spoken or cognitive or mental disabilities (3 percent in 2003) are excluded from this figure. *Parents* includes parents, grandparents, and guardians who had a child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

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

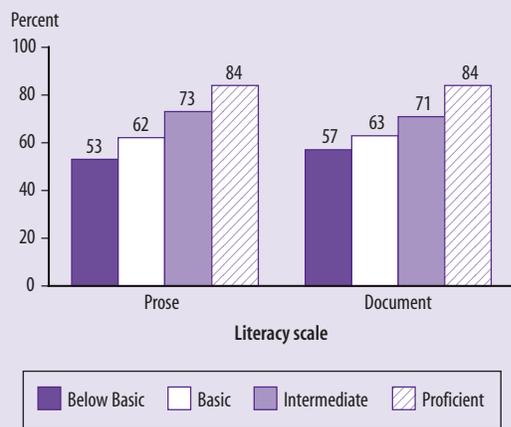
Sources of Information About Current Events, Public Affairs, and the Government

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.

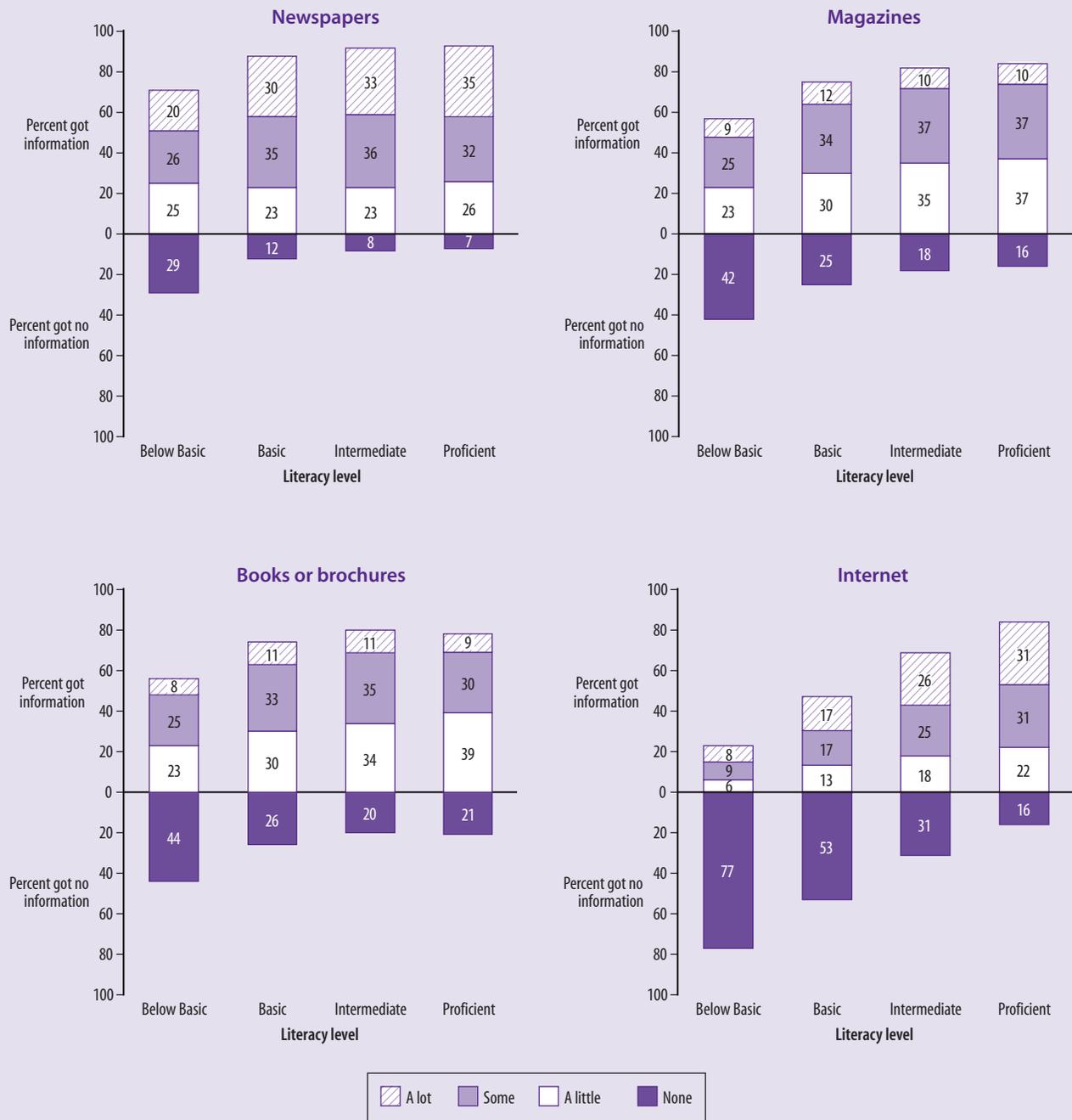
Comparisons across levels. Lower percentages of adults with *Below Basic* prose and document literacy than other adults reported reading any information about current events, public affairs, and the government in newspapers, magazines, books, or brochures or on the Internet¹⁴ (figure 6-2). Twenty-nine 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

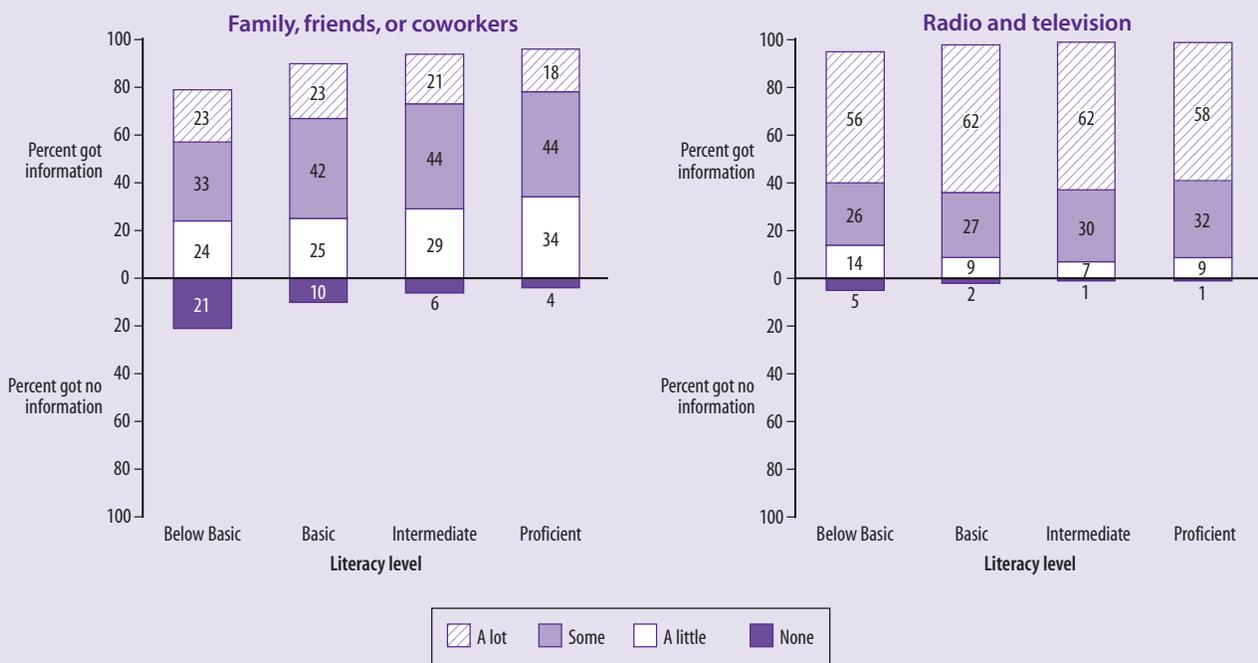
adults with *Proficient* prose literacy. The differences were smaller or not statistically significant among adults at different literacy levels with regard to the amount of information about these topics they got from radio and television.

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.

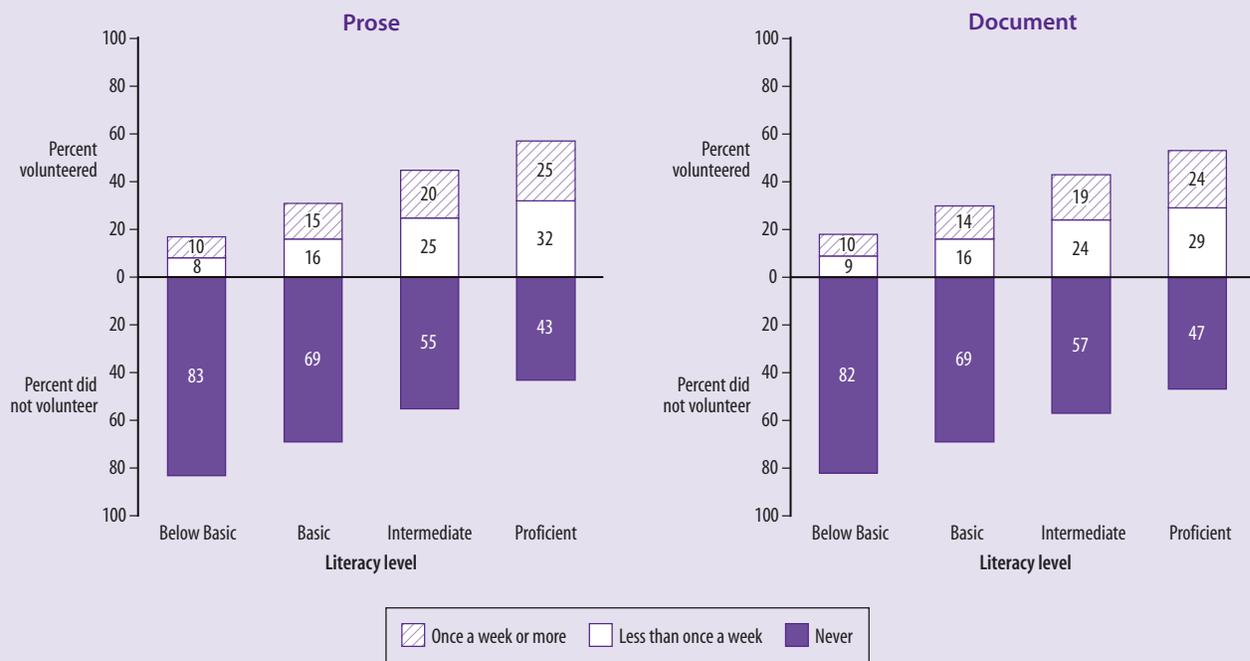
The percentages of adults who volunteered once a week or more were higher in each prose and document literacy level than in the next lower level (figure 6-4). Twenty-five percent of adults with *Proficient* prose literacy reported volunteering once a week or more during the previous year compared with 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

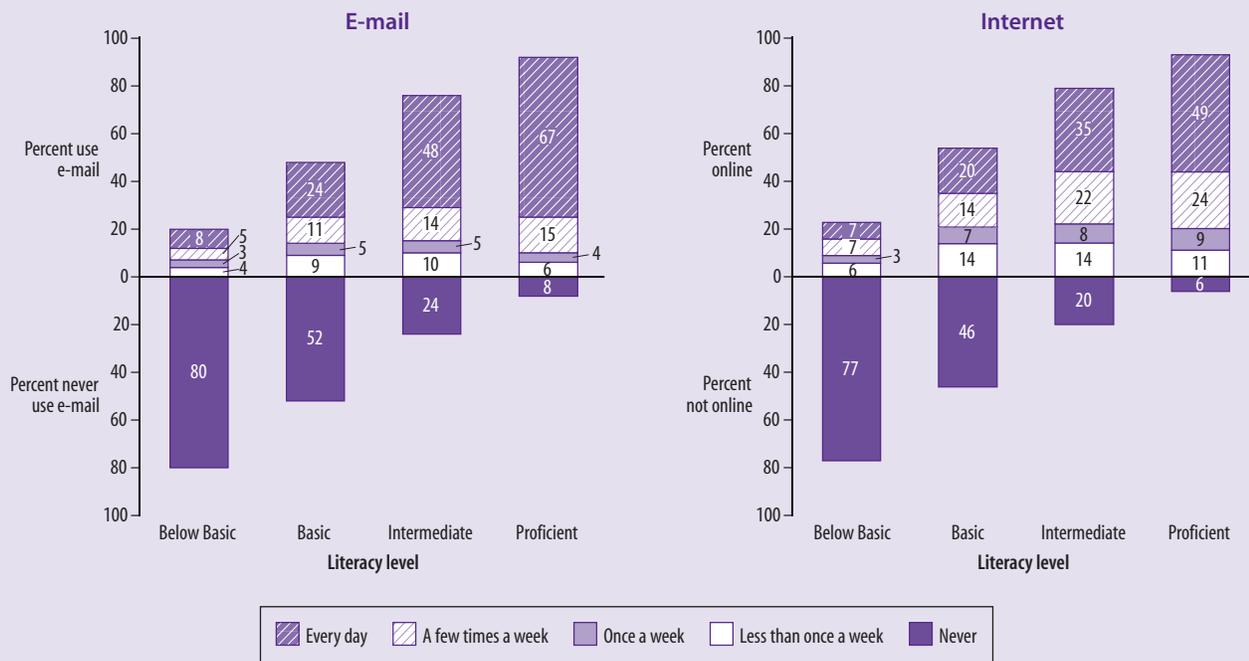
Basic prose literacy, 20 percent of adults with *Intermediate* prose literacy, and 6 percent of adults with *Proficient* prose literacy (figure 6-5). Almost half of adults with *Proficient* prose literacy used the Internet every day in the year prior to the 2003 adult literacy assessment compared with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

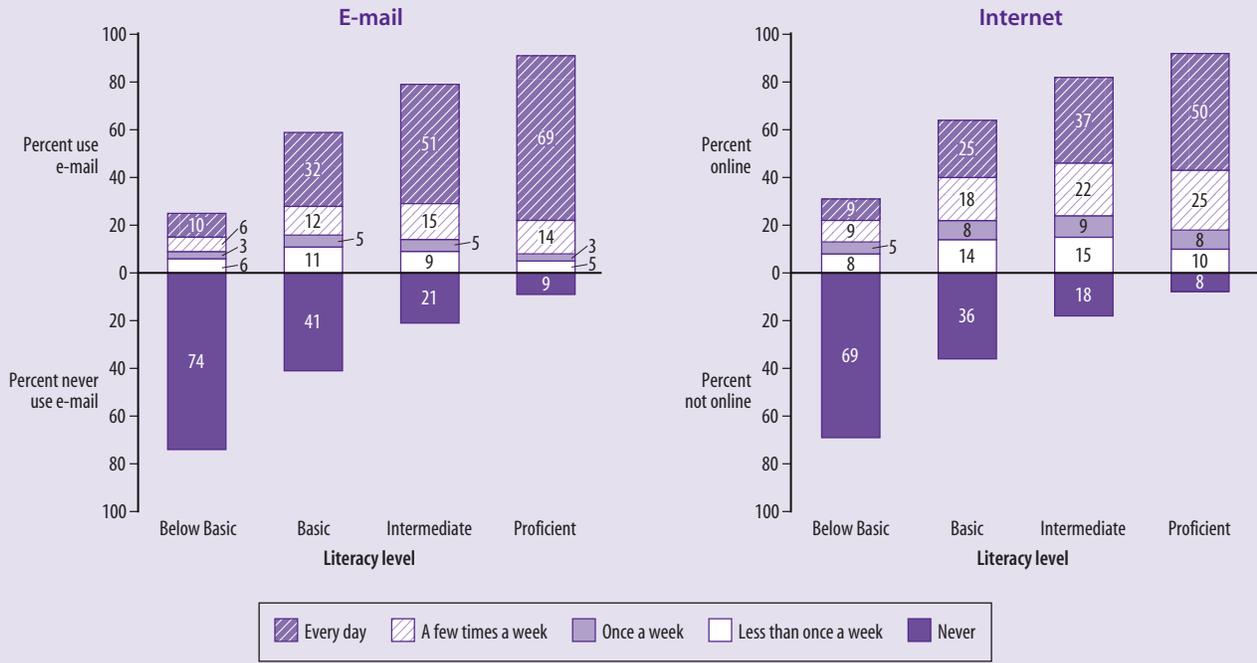
Adults with higher levels of prose and document literacy volunteered more frequently than adults with lower levels of literacy: the percentage of adults who volunteered once a week or more during the previous year was higher at each increasing level of literacy. Adults with higher levels of prose and 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.