ADULT LITERACY

in Pennsylvania

Results of the National Adult Literacy Survey

Lynn B. Jenkins and Irwin S. Kirsch

MAY 1994
EXECUTIVE SUMMARY

Adult Literacy in Pennsylvania

This executive summary presents a portrait of adult literacy in Pennsylvania based on the results of the State Adult Literacy Survey, an important research project in which 12 states assessed the literacy skills of their adult populations. The project, conducted in 1992, is a component of the National Adult Literacy Survey, a large-scale study funded by the U.S. Department of Education and administered by Educational Testing Service.

Many past studies of adult literacy have tried to count the number of “illiterates” in this nation, thereby treating literacy as a condition that individuals either do or do not have. We believe that such efforts are inherently arbitrary and misleading. They are also damaging, in that they fail to acknowledge both the complexity of the literacy problem and the range of solutions needed to address it.

The Pennsylvania State Adult Literacy Survey, like the National Adult Literacy Survey of which it is a part, is based on a different definition of literacy and therefore follows a different approach to measuring it. The aim of this survey is to characterize adults’ literacy skills in English based on their performance on diverse tasks that reflect the types of materials and demands they encounter in their daily lives.

To gather information on the literacy skills of adults in Pennsylvania, trained staff interviewed selected individuals age 16 and older during the first eight months of 1992. These participants were randomly chosen to represent the adult population in the state as a whole. In total, more than 1,600 adults in Pennsylvania were surveyed, representing approximately 9.25 million adults statewide.

Each survey participant was asked to spend approximately an hour responding to a series of varied literacy tasks as well as questions about his or her demographic characteristics, educational background, employment, income, reading practices, and other areas related to literacy. Based on their responses to the survey tasks, adults received proficiency scores along three scales, each ranging from 0 to 500. The score points along these scales reflect varying degrees of skill in prose, document, and quantitative literacy. To provide a way to examine the distribution of performance within various subpopulations of interest, five levels of proficiency were defined along each scale: Level 1 (0 to 225), Level 2 (226 to 275), Level 3 (276 to 325), Level 4 (326 to 375), and Level 5 (376 to 500).

The full report offers a comprehensive look at the results of the Pennsylvania survey. It describes the average literacy proficiencies and the levels of proficiency demonstrated by adults in this state, compared with individuals in the region and nation, and explores connections between literacy and an array of variables. Some of the major findings are highlighted in the pages that follow.

Profiles of Adult Literacy in Pennsylvania

- Eighteen to 22 percent of the adults in Pennsylvania demonstrated skills in the lowest level of prose, document, and quantitative proficiencies (Level 1). Though all adults in this level displayed limited skills, their characteristics are diverse. Many adults in this level were successful in performing simple, routine tasks involving brief and uncomplicated texts and documents. For example, they were able to total the entries on a deposit slip, locate the time or place of a meeting on a form, and identify a piece of specific information in a brief news article. Others did not perform these types of tasks successfully, however, and some had such limited skills that they were unable to respond to much of the survey.

- The composition of the Level 1 population differs in some important respects from the state population as a whole. For example, just 36 percent of the Pennsylvania adults who performed in the lowest quantitative proficiency level had completed high school or a General Educational Development (GED) certificate or attended a postsecondary institution, compared with 74 percent of the state population as a whole. Fifty percent of those who performed in Level 1 on the quantitative scale were age 65 or older, and 40 percent had physical or mental conditions that kept them from participating fully in work, school, housework, or other activities.
Twenty-five to 28 percent of the Pennsylvania respondents performed in the next higher level of proficiency (Level 2) on each literacy scale. While their skills were more varied than those of individuals in Level 1, their repertoires were still quite limited. They were generally able to locate information in text, to make low-level inferences using printed materials, and to integrate easily identifiable pieces of information. Further, they demonstrated the ability to perform quantitative tasks that involve a single operation where the numbers are either stated or can be easily found in text. For example, adults in this level were able to calculate the total cost of a purchase or determine the difference in price between two items. They could also locate a particular intersection on a street map and enter background information on a simple form.

Individuals in Levels 1 and 2 were sometimes, but not consistently, able to respond correctly to the more challenging literacy tasks in the assessment—those requiring higher level reading and problem-solving skills. In particular, they appeared to have considerable difficulty with tasks that required them to integrate or synthesize information from complex or lengthy texts or to perform quantitative tasks in which the individual had to set up the problem and then carry out two or more sequential operations.

Approximately one-third (32 to 35 percent) of the survey participants in Pennsylvania performed in Level 3 on each literacy scale. Respondents with skills in this level on the prose and document scales integrated information from relatively long or dense text or from documents. Those in Level 3 on the quantitative scale demonstrated an ability to determine the appropriate arithmetic operation based on information contained in the directive, and to identify the quantities needed to perform that operation.

Seventeen to 21 percent of the respondents in Pennsylvania scored in the two highest levels of prose, document, and quantitative literacy (Levels 4 and 5). These adults consistently demonstrated the ability to perform the most challenging tasks in this assessment, many of which involved long and complex documents and text passages.

The average prose, document, and quantitative proficiencies of adults in Pennsylvania were slightly (5 to 7 points) higher than those of adults living in the Northeast region but approximately the same as those of adults nationwide. In all three populations—the state, region, and nation—average scores were in the high end of the Level 2 range (226 to 275).

Individuals in the middle age categories were more likely than those in both the younger and older age groups to reach the highest levels of literacy on each scale.

Pennsylvania residents who were born in the United States had higher prose and quantitative proficiencies, on average, than foreign-born individuals. The number of foreign-born adults in Pennsylvania was too small to compare the proficiencies of those who had lived in the United States for different numbers of years. Nationwide, however, foreign-born adults who had lived in this country for more than a decade outperformed more recent immigrants by roughly 20 points on each scale.

African American adults in Pennsylvania were more likely than White adults to perform in the two lowest literacy levels and less likely to attain the two highest levels.

Fourteen percent of the Pennsylvania residents reported having physical or mental conditions that keep them from participating fully in work or other activities. These individuals were more likely than adults in the population as a whole to perform in the lowest levels on each literacy scale.

The average prose and document proficiencies of men and women in Pennsylvania did not differ, but the average quantitative proficiencies of men were 15 points higher than those of women.
Education and Training

- The educational attainments of Pennsylvania residents were, on the whole, similar to those of adults nationwide. A high school diploma was the highest level of education attained by 35 percent of the state’s adults, and another 36 percent had continued their education past high school.

- On all three literacy scales, average scores climb steadily across the education levels. The average prose proficiency score of Pennsylvania adults who did not continue their education past eighth grade was 205, for example, compared with 226 for those who completed nine to 12 years of schooling and 273 for those who earned a high school diploma but went no further. Individuals whose highest level of education was a two-year degree had an average prose score of 311, and those with a four-year degree had an average score of 328.

- Pennsylvania adults had completed an average of 12.5 years of schooling. Differences in the average years of schooling completed by adults in various subpopulations tend to parallel the differences in literacy proficiencies. Older adults had completed fewer years of schooling, on average, than adults in the other age groups, and adults born in the United States had finished more years of schooling in this country than those born abroad.

- On each literacy scale, the average scores of school dropouts nationwide who had studied for a GED or high school equivalency diploma were approximately 50 points higher than those of dropouts who had not participated in such a program. Eighty-four percent of the GED program participants in Pennsylvania were age 25 or older.

- Twenty percent of the adults in Pennsylvania who had not earned a high school diploma or GED and who were employed indicated that they would be willing to pursue a high school equivalency diploma during work hours, if their employers allowed them to do so.

- Pennsylvania residents who were enrolled in school or college at the time of the survey had higher literacy proficiencies, on average, than adults who were not enrolled in an academic program. Most enrollees stated that their goal was a four-year college degree.

- Slightly more than two-thirds of the adults in Pennsylvania felt that employers have an obligation to provide literacy education to employees who need it. These individuals had lower average proficiencies than those who did not share this view.

Employment, Economic Status, and Civic Responsibility

- Employed adults were less likely than adults who were unemployed or out of the labor force to perform in the lowest levels on each literacy scale and more likely to attain the highest levels. On each scale, 30 to 45 percent of the employed adults in Pennsylvania performed in Levels 1 and 2, in contrast to approximately two-thirds to three-quarters of the adults who were unemployed or out of the labor force.

- Pennsylvania residents who reported being in professional, technical, or managerial positions in their current or most recent jobs had higher average literacy scores than those in other types of jobs. On the prose scale, for example, the former group had an average score of 323, compared with 296 for individuals in sales or clerical positions, 274 for those in craft or service positions, and 265 for those in labor, assembly, fishing, or farming positions.

- On each literacy scale, adults who performed in the higher levels had worked more weeks in the past year, on average, than individuals in the lower levels. Among Pennsylvania residents, those in the two highest literacy levels reported working an average of 39 to 43 weeks in the past year, compared with only 11 to 13 weeks for individuals performing in Level 1.
Across the scales, Pennsylvania adults with proficiencies in Level 1 reported median weekly earnings of $227 to $240. In contrast, those in Level 3 earned about $326 to $355, while those in Level 5 earned between $506 and $671. Similarly, the median annual household income reported by adults in the highest proficiency levels was far higher than that of adults in the lowest levels.

From 39 to 42 percent of Pennsylvania residents designated as either poor or near poor demonstrated skills in Level 1 on each literacy scale, and another 30 to 31 percent performed in Level 2; in contrast, 35 to 43 percent of the not poor performed in these levels. As a result, the average literacy scores of poor and near poor adults are considerably lower than the scores of adults who were not poor.

Among Pennsylvania residents, voting appears to be unrelated to literacy proficiency. On all three scales, the average literacy proficiencies of state residents who said they had voted in a recent election were no higher than those of nonvoters.

Language Use and Literacy Practices

Most Pennsylvania residents (89 percent) reported speaking only English before beginning school. Nationwide, individuals who spoke only English as children displayed higher average proficiencies than adults who reported having spoken another language either in addition to or instead of English.

Sixty-five percent of Pennsylvania’s adults reported that they had grown up in homes where various books, magazines, and other printed materials were available. Fifty-six percent said they had been read to as children, and nearly one-third reported having been helped with their schoolwork by parents or guardians. Individuals who had received any of these types of early home support for literacy and learning outperformed those who had not.

Almost all of the survey respondents in Pennsylvania reported getting some or a lot of information about current events, public affairs, or government from nonprint media—that is, from television or radio. A smaller percentage (86 percent) said they get much of their information from print media, such as newspapers or magazines. Those who get some or a lot of information from print media earned higher average scores in the assessment than those who do not.

More than half (56 percent) of the adults in the state said they read a newspaper every day, while another 34 percent said they do so at least once a week. Four percent reported never reading a newspaper, and their average prose, document, and quantitative proficiencies were far lower than those of newspaper readers.

Sixteen percent of the Pennsylvania respondents said they do not read any magazines in English on a regular basis, and 19 percent had not read a book in English in the past six months. The average literacy scores of individuals who do not read books or magazines regularly were considerably (approximately 50 points) lower than the scores of those who do.

Forty-one percent of the state’s residents reported that they never use a library, and another 29 percent said they do so only once or twice a year. In general, individuals who reported frequent use of the library outperformed less frequent users.

Virtually all Pennsylvania residents said they watch some television every day, although 18 percent said they spend no more than an hour on this activity. Roughly one-third of the state’s residents reported watching four or more hours of television each day. Individuals who watch the least television had significantly higher average scores than those who watch the most.

There are very large differences in prose proficiency between Pennsylvania residents who read and write prose frequently, either for their personal use or for their jobs, and those who do not. Similarly, the average document proficiencies of individuals who use documents at least a few times a week are far higher than the scores of individuals who do not use these materials often. Finally, in the
dimension of quantitative literacy, adults who said they frequently use mathematics outperformed those who rarely or never do so.

**Reflections on the Results**

In reflecting on the results of this study, many readers will undoubtedly seek an answer to a fundamental question: Are the outcomes satisfactory? That is, are the distributions of prose, document, and quantitative proficiency observed in this survey adequate to ensure individual opportunities for all adults, to increase worker productivity, or to strengthen America’s competitiveness around the world?

Because it is impossible to say precisely what literacy skills are essential for individuals to succeed in this or any other society, the results of the State and National Adult Literacy Surveys provide no firm answers to such questions. As the authors examined the survey data and deliberated on the results with members of the advisory committees, however, several observations and concerns emerged.

Perhaps the most salient finding of this study is that such large percentages of adults performed in the lowest levels (Levels 1 and 2) of prose, document, and quantitative literacy. In and of itself, this may not indicate a serious problem. After all, the majority of adults who demonstrated limited skills described themselves as reading or writing English well, and relatively few said they get a lot of assistance from others in performing everyday literacy tasks. Perhaps these individuals are able to meet most of the literacy demands they encounter currently at work, at home, and in their communities.

Yet, some argue that lower literacy skills mean a lower quality of life and more limited employment opportunities. As noted in a recent report from the American Society for Training and Development, “The association between skills and opportunity for individual Americans is powerful and growing.... Individuals with poor skills do not have much to bargain with; they are condemned to low earnings and limited choices.”

The data from this survey appear to support such views. On each of the literacy scales, adults who were unemployed or out of the labor force and who earned low wages tended to demonstrate far more limited skills than those who were employed and who earned high wages. Adults who rarely or never read displayed lower average proficiencies than those who were at least occasional readers. Moreover, the average literacy scores of individuals who received food stamps and who were poor or near poor were much lower than those of their more affluent peers.

Literacy is not the only factor that contributes to how we live our lives, however. Some adults who were out of work or who earned low wages performed relatively well in the assessment, while some full-time workers or adults who earned high wages did relatively poorly. Thus, having advanced literacy skills is not necessarily associated with individual opportunities.

Still, literacy can be thought of as a currency in this society. Just as adults with little money have difficulty meeting their basic needs, those with limited literacy skills are likely to find it more challenging to pursue their goals—whether these involve job advancement, consumer decision making, citizenship, or other aspects of their lives. Even if adults who performed in the lowest literacy levels are not experiencing difficulties at present, they may be at risk as the nation’s economy and social fabric continue to change.

Beyond these personal consequences, what implications are there for society when so many individuals display limited skills? The answer to this question is elusive. Still, it seems apparent that a nation in which large numbers of citizens display limited literacy skills has fewer resources with which to meet its goals and objectives, whether these are social, political, civic, or economic.

If large percentages of adults had to do little more than be able to sign their name on a form or locate a single fact in a newspaper or table, then the levels of literacy seen in this survey might not warrant concern. We live in a nation, however, where both the volume and variety of written information are growing and where increasing numbers of citizens are expected to be able to read, understand, and use these materials.

Historians remind us that during the last 200 years, our nation’s literacy skills have increased dramatically in response to new requirements and expanded opportunities for social and economic

---

growth. Today we are a better-educated and more literate society than at any time in our history. Yet, there have also been periods of imbalance—times when demands seemed to surpass levels of attainment.

In recent years, our society has grown more technologically advanced and the roles of formal institutions have expanded. As this has occurred, many have argued that there is a greater need for all individuals to become more literate and for a larger proportion to develop advanced skills. Growing numbers of individuals are expected to be able to attend to multiple features of information in lengthy and sometimes complex displays, to compare and contrast information, to integrate information from various parts of a text or document, to generate ideas and information based on what they read, and to apply arithmetic operations sequentially to solve a problem.

The results from this and other surveys, however, indicate that many adults do not demonstrate these levels of proficiency. Further, the continuing process of demographic, social, and economic change within this country could lead to a more divided society along both racial and socioeconomic lines.

Already there is evidence of a widening division. According to the report America’s Choice: High Skills or Low Wages!, over the past 15 years the gap in earnings between professionals and clerical workers has grown from 47 to 86 percent while the gap between white collar workers and skilled tradespeople has risen from 2 to 37 percent. At the same time, earnings for college educated males 24 to 34 years of age have increased by 10 percent while earnings for those with high school diplomas have declined by 9 percent. Moreover, the poverty rate for African American families is nearly three times that for White families. One child in five is born into poverty, and for minority populations, this rate approaches one in two.

In 1990, President Bush and the nation’s governors, including Governor Clinton, adopted the goal that all of America’s adults be literate by the year 2000. The responsibility for meeting this objective must, in the end, be shared among individuals, groups, and organizations throughout our society. Programs that serve adult learners cannot be expected to solve the literacy problem alone, and neither can the schools. Other institutions—ranging from the largest and most complex government agency, to large and small businesses, to the family—all have a role to play in ensuring that adults who need or wish to improve their literacy skills have the opportunity to do so. It is also important that individuals themselves come to realize the value of literacy in their lives and to recognize the benefits associated with having better skills. Only then will more adults in this nation develop the literacy resources they need to function in society, to achieve their goals, and to develop their knowledge and potential.

---

