



# ADULT EDUCATION IN AMERICA

*A First Look  
at Results  
from the  
Adult Education  
Program and  
Learner Surveys*

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# **Adult Education in America: A First Look at Results from the Adult Education Program and Learner Surveys**

Claudia Tamassia, Marylou Lennon,  
Kentaro Yamamoto and Irwin Kirsch

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## Table of Contents

|   |           |
|---|-----------|
| <b>Acknowledgements</b>   | <b>3</b>  |
| <hr/>   |           |
| <b>General Introduction</b>   | <b>9</b>  |
| <b>Overview of the Study</b>  | <b>10</b> |
| <b>Organization of the Report</b>                                       | <b>12</b> |
| <b>Overview of Key Findings</b>   | <b>13</b> |
| <b>Note to Readers</b>  | <b>15</b> |
| <hr/>   |           |
| <b>PART I:</b>  |           |
| <b>The Program Survey</b>   | <b>17</b> |
| A Description of the Program Survey                                     | 17        |
| Program Survey Highlights   | 18        |
| <hr/>   |           |
| <b>CHAPTER 1</b>  |           |
| <b>Characterizing Adult Education Programs<br/>in the United States</b> | <b>19</b> |
| <b>Introduction and Highlights</b>                                      | <b>19</b> |
| Key Findings  | 20        |
| <b>Program Profiles</b>   | <b>22</b> |
| Types of Providers  | 22        |
| Program Size  | 24        |
| Budgets and per Pupil Spending  | 26        |
| Funding Sources   | 27        |
| Types of Expenditures   | 29        |
| Collaborations with Public and Private<br>Community Organizations       | 30        |
| <hr/>   |           |
| <b>Instructional and Support Services</b>                               | <b>31</b> |
| Types of Instructional Services   | 31        |
| Intensity of Instructional Programs and Educational Gains               | 33        |
| Instructional Settings  | 34        |
| Providing Services to Populations with<br>Special Needs                 | 35        |
| Providing Services to Adults with English<br>as a Second Language       | 37        |
| <hr/>   |           |

## Table of Contents

|   |           |
|---|-----------|
| <b>Program Staff Profile and Characteristics</b>  | <b>38</b> |
| Distribution of Staff within Types of Providers   | 39        |
| Roles, Experience, and Credentials of Adult Education Staff                                     | 40        |
| <b>Role and Uses of Assessment</b>  | <b>42</b> |
| <b>Uses of Technology</b>   | <b>44</b> |
| <b>Geographic Distribution of Adult Education Programs</b>                                      | <b>46</b> |
| <b>A Profile of Adult Education Providers</b>   | <b>47</b> |
| Local Education Agencies (LEA)  | 47        |
| Community-Based Organizations (CBO)   | 48        |
| Community Colleges  | 49        |
| Correctional Institutions   | 50        |
| <b>Final Remarks</b>  | <b>50</b> |
| <b>PART II:</b>   |           |
| <b>The Learner Survey</b>   | <b>53</b> |
| <b>A Description of the Learner Survey</b>  | <b>53</b> |
| Defining and Measuring Literacy and Numeracy  | 53        |
| Reporting Results   | 55        |
| Conducting the Survey   | 57        |
| <b>Organization of Part II</b>  | <b>58</b> |
| <b>Learner Survey Highlights</b>  | <b>58</b> |
| <b>Chapter 2</b>  |           |
| <b>Profiling Literacy and Numeracy Skills among Adult Learners</b>                              | <b>61</b> |
| <b>Introduction and Highlights</b>  | <b>61</b> |
| Key Findings  | 62        |
| <b>Literacy and Numeracy Skills of Adult Learners</b>   | <b>64</b> |
| A Profile of Skills   | 64        |
| The Distribution of Skills across Instructional Programs  | 68        |
| <b>Background Characteristics of Adult Learners</b>   | <b>70</b> |
| Gender and Skills   | 71        |
| Age and Skills  | 72        |
| Skills and the Role of Race, Ethnicity, Immigration<br>Status, and Language                     | 76        |
| Educational Attainment, Place of Birth and Skills   | 80        |
| <b>Complex Characteristics Related to the Adult Learner<br/>    Population and Skill Levels</b> | <b>84</b> |
| Literacy and Reading Engagement   | 84        |
| Literacy and Wealth   | 89        |
| Literacy and Health   | 91        |

|  |            |
|--|------------|
| <b>Geographic Distribution of Adult Program Participants</b>   | <b>94</b>  |
| <b>Final Remarks</b>   | <b>95</b>  |
| <b>Chapter 3</b>   |            |
| <b>Comparing the Adult Learner and General Household Populations</b>   | <b>97</b>  |
| <b>Introduction and Highlights</b>   | <b>97</b>  |
| Key Findings   | 98         |
| <b>General Comparison of the Adult Learner and Household Populations</b>   | <b>99</b>  |
| <b>Comparing Literacy and Numeracy Distributions</b>   | <b>100</b> |
| <b>Comparing Background Characteristics</b>  | <b>104</b> |
| Gender and Skills  | 104        |
| Age and Skills   | 107        |
| Skills and the Role of Race, Ethnicity, Place of Birth, and Language   | 109        |
| Educational Attainment and Skills  | 114        |
| <b>Comparing Complex Characteristics of Adults</b>   | <b>116</b> |
| Literacy and Reading Engagement  | 116        |
| Literacy and Wealth  | 120        |
| Literacy and Health  | 122        |
| <b>Final Remarks</b>   | <b>125</b> |
| <b>Chapter 4</b>   |            |
| <b>Comparing Literacy Skills of English- and Spanish-Speaking Hispanic Adult Learners</b>  | <b>127</b> |
| <b>Introduction and Highlights</b>   | <b>127</b> |
| Key Findings   | 129        |
| <b>An Overview of Hispanic Learners in the United States</b>   | <b>129</b> |
| Profile of Literacy  | 129        |
| Relevant Characteristics within the Hispanic Population of Adult Learners  | 133        |
| Age and Skills   | 134        |
| Place of Birth and Mother Tongue   | 136        |
| Educational Attainment   | 141        |
| <b>Comparisons between Hispanic Adult Learners in the United States and Adults in the General Population in a Region of Mexico</b> | <b>143</b> |
| <b>Final Remarks</b>   | <b>145</b> |

## Table of Contents

---

|  |            |
|--|------------|
| <b>Appendices</b>                                  | <b>147</b> |
| <b>Appendix A</b>                                  | <b>149</b> |
| <b>Appendix A1: Reader's Guide</b>                 | <b>149</b> |
| List of Acronyms                                   | 149        |
| Roundind Procedures                                | 150        |
| Glossary of Statistical Values Used in this Report | 150        |
| <hr/>  |            |
| <b>Appendix A2: AEPS Program Questionnaire</b>     | <b>151</b> |
| <hr/>  |            |
| <b>Appendix A3: AEPS Background Questionnaire</b>  | <b>181</b> |
| <hr/>  |            |
| <b>Appendix A4: AEPS Instruments and Methods</b>   | <b>205</b> |
| Program Survey                                     | 205        |
| Learner Survey                                     | 210        |
| <hr/>  |            |
| <b>Appendix B</b>                                  | <b>221</b> |
| <b>Appendix B1: Chapter 1 Tables</b>               | <b>221</b> |
| <hr/>  |            |
| <b>Appendix B2: Chapter 2 Tables</b>               | <b>243</b> |
| <hr/>  |            |
| <b>Appendix B3: Chapter 3 Tables</b>               | <b>277</b> |
| <hr/>  |            |
| <b>Appendix B4: Chapter 4 Tables</b>               | <b>309</b> |
| <hr/>  |            |
| <b>References</b>                                  | <b>325</b> |

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# General Introduction

Today in America the rewards for what one knows and can do are large and growing. Literacy and numeracy skills have become a currency both here in the United States and in many developed countries around the world. Those in our society with below average skills cannot hope to earn above average wages in a global economy. Neither can they hope to participate fully in an evolving society where individuals are required to take on additional responsibility for more aspects of their lives in the face of increasing types and amounts of information. Policy makers and others are coming to recognize that, in modern societies, human capital, or what one knows and can do, may be the most important form of capital.

The skills that participants in adult education programs do or do not develop have increasingly important implications in terms of workforce participation, long-term self-sufficiency, acculturation, and citizenship. A growing body of data shows that, in addition to obtaining and succeeding in a job, literacy and numeracy skills are associated with the likelihood that individuals will participate in lifelong learning, keep abreast of social and political events, and vote in state and national elections (Benjamini and Hochberg 1995; OECD and Statistics Canada 2005; Sum, Kirsch, and Yamamoto 2004a). These data also suggest that literacy is likely to be one of the major pathways linking education and health and may be a contributing factor to the disparities that have been observed in the quality of health care in developed countries. Thus, the noneconomic returns to literacy in the form of enhanced personal well-being and greater social cohesion have been viewed by some as being as important as economic and labor-market returns.

Given the social and economic stakes involved, one might reasonably argue that adult education programs have the potential to impact the lives of their participants in unprecedented ways. Adult education has a rich and diverse history in the United States and a range of groups—public and private, state and federal—has long been involved in educating America's adults. In addition to public schools and voluntary organizations, various groups have played a role in promoting literacy. These include religious schools that promoted literacy so that adherents could read the Bible, lending libraries that worked with community members so they could read the latest in American literature or pursue personal enrichment, vocational schools that strove to advance the occupational skills of students, governments that saw literacy as a way to support citizenship, and the military, which promoted literacy to ensure a well-trained fighting force.

While diversity within the field persists, the past forty years have been characterized by a sustained federal and state partnership in adult education. In the 1960s, as part of the federal War on Poverty, the U.S. Congress passed the Economic Opportunity Act (1964), which included the Adult Basic Education program. This

legislation established a program of federal grants to states and focused on setting up basic education classes for adults who had not completed secondary education. Funding for states that first year was \$18.6 million with an enrollment of just under 38,000 adults (Eyre 1998). In 1966, the program expanded beyond basic education and moved to the U.S. Department of Education with the passage of the Adult Education Act. The thirty years that followed saw an increase in the commitment of federal dollars to adult education, with a concomitant increase in the number of adults enrolled in federally supported programs. By 1992, federal funds had increased to over \$235.7 million and enrollments had risen to over 3.8 million (Sticht 1998).

Adult education programs in the United States are currently governed by the Adult Education and Family Literacy Act (AEFLA), Title II of the Workforce Investment Act of 1998. This legislation directs how federal dollars are distributed and defines the general goals of adult education programs as

- assisting adults to become literate and obtain the knowledge and skills necessary for employment and self-sufficiency;
- assisting adults who are parents to obtain the educational skills necessary to become full partners in the educational development of their children;
- assisting adults in the completion of a secondary school education.

In addition, the legislation establishes performance accountability standards organized around “core indicators” that the Act defines as

- demonstrated improvements in literacy skill levels in reading, writing, and speaking the English language; numeracy and problem-solving; English language acquisition; and other literacy skills;
- placement in, retention in, or completion of, postsecondary education, training, unsubsidized employment, or career advancement;
- receipt of a secondary school diploma or its recognized equivalent.

The Adult Education Program Study (AEPS) was conducted to provide comprehensive information about federally funded adult education programs and the skills of participants enrolled in those programs. The study had two primary goals. The first was to gather and disseminate information about the programs that constitute the adult education system in the United States. The second was to assess and report on the literacy and numeracy skills of a nationally representative sample of adults who participated in those programs. Such information is particularly timely given that the major federal statute authorizing adult education activities—the Workforce Investment Act—expired at the end of fiscal year 2004 and has yet to be reauthorized by Congress. For the more than two million adults who currently participate in federally supported adult education programs, acquiring literacy and numeracy skills matters, perhaps now more than ever, and adult education programs have a critical role to play in improving their educational opportunities and outcomes.

## Overview of the Study

Efforts to understand the structure and characteristics of adult education programs and the learners they serve are not new. Between 1990 and 1994, the U.S. Department of Education conducted the National Evaluation of Adult Education Programs to “evaluate adult education programs funded under the basic grants provision of the [Adult Education] Act regarding their potential for significantly reducing deficits in the adult population with respect to literacy, English proficiency, and secondary

education” (Young et al. 1995, 4). This evaluation effort involved collecting general data from the universe of adult programs in 1990, followed by the collection of more specific data from a sample of adult education programs. This was later followed by the collection of data from adult education learners through a telephone interview to adults who had been out of adult education programs for about six months. While these studies collected detailed information about adult education programs, limited information was available on the literacy level of adult learners.

The overall goal of the AEPS was to provide nationally representative information about adult education programs and their participants. Sponsored by the Office of Vocational and Adult Education, the AEPS represented a collaborative effort. The study was designed and conducted by the Educational Testing Service (ETS) and Westat, Inc., working in conjunction with staff from the Office of Vocational and Adult Education and the National Center for Education Statistics. The AEPS consisted of two surveys: the Program Survey, which collected information about the characteristics of adult education programs and the services they offered, and the Learner Survey, which assessed the literacy skills of learners in a sample of adult education programs. The Program Survey covered the program year from July 1, 2001 to June 30, 2002 and data collection for the Learner Survey took place from March through June of 2003.

The Program Survey focused on adult education programs and was designed to provide a description of those programs in terms of

- the characteristics of institutions offering such programs, including their size in terms of number of programs, number of sites, number of participants, and budget;
- the types of learners enrolled in programs and the kinds of support systems offered to those learners;
- characteristics of program staff members and their qualifications;
- the types of assessments employed and ways in which assessment information was used;
- the extent to which technology was employed and purposes for its use.

Strict sampling procedures were designed to ensure that the program questionnaire was representative of programs of all sizes in all regions of the United States. The results of this survey are presented in Part I of this report.

The Learner Survey was designed to provide a profile of a nationally representative sample of adult learners enrolled in adult education programs. Two instruments were used to gather this information. The first was a background questionnaire used to collect information about learner characteristics with respect to language background, educational background and experiences, labor force participation and other activities, and general demographic information such as gender and age. The second instrument was an assessment of literacy and numeracy skills. This instrument was derived from the Adult Literacy and Life Skills Survey (ALL), an international, large-scale assessment of adults conducted in 2003 with the United States as one of the seven participants (OECD and Statistics Canada 2005). The ALL was designed and implemented in collaboration with several international organizations, including Statistics Canada, ETS, and the Organisation for Economic Cooperation and Development (OECD). Results from the Learner Survey are presented in Part II of this report.

The results from the AEPS provide a comprehensive picture of federally supported adult education activities in the United States during the 2001-2002

program year. This picture includes a description of adult education programs, a profile of the learners that are being served by these programs, and a description of their skills in prose literacy, document literacy, and numeracy. The AEPS can, in many ways, be considered a survey of firsts.

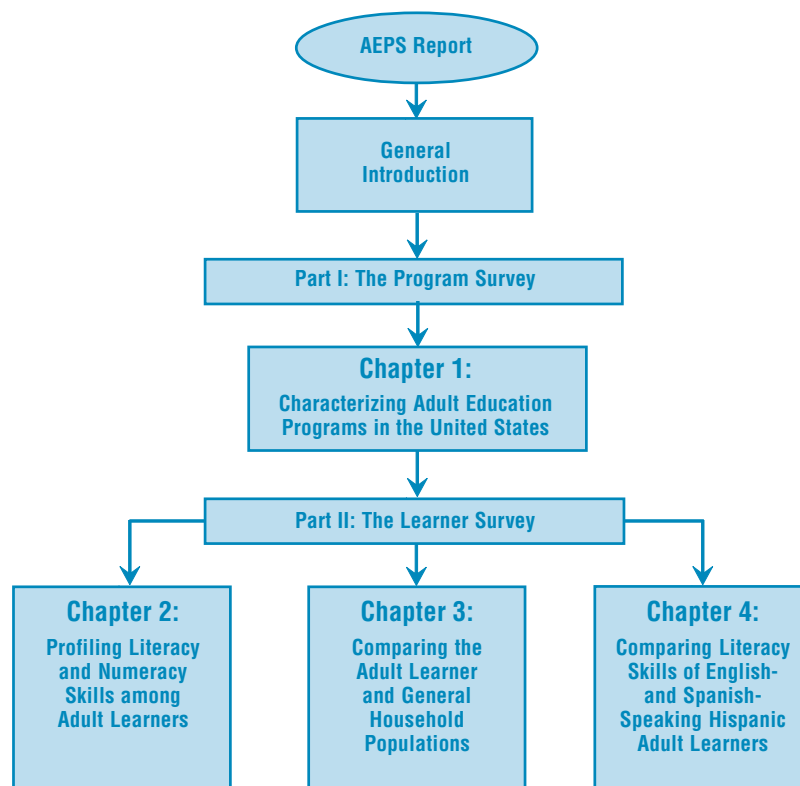
- The AEPS represents the first time comparable literacy measures have been used to assess the skills of adult education participants in the United States in a nationally representative sample.
- It is the first time such measurement allows comparisons with a household sample, by comparing results with those from the ALL.
- It is the first time this kind of assessment has been conducted in both Spanish and English.

All stakeholders in adult education, therefore, can benefit from the results of the AEPS, as they provide a unique look at the structure, organization, and substance of adult education programs *and* at the skills of adult learners enrolled in those programs across the country.

## Organization of the Report

Figure I.1 illustrates the overall structure of this report. As shown in the figure, Part I focuses on the Program Survey and Part II on the Learner Survey. Part II consists of three chapters and, in addition to examining data from the Learner Survey, includes data from the ALL to compare adult learners with the general adult population in the United States.

**Figure I.1** An Overview of the Adult Education Program Study Report



Part I contains Chapter 1, in which the results of the Program Survey are presented. Data about programs funded under the AEFLLA are presented and discussed. These data are organized around key areas of interest including the types and sizes of programs, information about funding sources, descriptive information about the types of instructional programs being delivered, the range of learners served, characteristics of staff associated with various types of adult education programs, general assessment practices, and uses of technology.

Part II consists of Chapters 2 through 4. Chapter 2 presents the results of the Learner Survey, looking at the distribution of literacy and numeracy skills among individuals participating in adult education programs. The relationship between skills and background characteristics such as gender, age, ethnicity, immigration status, and educational attainment is examined. Relationships between literacy and reading engagement, economic status, and health are also explored. In addition, the chapter looks at the distribution of literacy and numeracy skills by type instruction including Adult Basic Education (ABE), Adult Secondary Education (ASE), and English as a Second Language (ESL).

Chapter 3 compares results from the Learner Survey with results from the ALL for the U.S. sample. The ALL was a household survey that examined the characteristics and levels of literacy and numeracy of the general adult population in the United States and six other countries. As the Learner Survey uses instruments and methodology that emerged from the ALL, high comparability of the results from the two surveys is possible. This comparability allows the adult learner population to be compared with the general adult population in the United States.

Chapter 4 focuses on Hispanic learners and compares their performance on English and Spanish versions of the literacy tasks in the Learner Survey. As part of the study, a representative sample of the Hispanic population enrolled in adult programs was drawn and these learners were randomly assigned to either the English or Spanish versions of the AEPS instruments. This aspect of the study design allows an analysis of the extent to which the language of the assessment influenced performance on literacy tasks. In addition, this chapter compares the performance of the U.S. Hispanic adult learner population with the general adult population from the Mexican state of Nuevo Leon, also collected through the ALL.

The report also includes important information in its appendices: (a) Appendix A1 presents the reader's guide with definitions of key terms used in the report, (b) Appendix A2 presents the questionnaire used in the Program Survey, (c) Appendix A3 presents the background questionnaire used as part of the Learner Survey, and (d) Appendix A4 describes and documents the methodology and procedures used for the implementation of the AEPS, including key aspects of survey administration, response, and data quality. Appendix B presents all supporting tables.

## Overview of Key Findings

In many ways, the challenges for adult education programs and their learners are more complex today than ever before. Looking at data from the Program and Learner Surveys in conjunction with current and projected social and economic trends helps to characterize the range and scope of those challenges. While this report is not a policy paper, some of these findings suggest important areas for further discussion among members of the adult education community.

As this report shows, learners have a range of challenges to meet in order to develop the literacy skills they need. Data from the Learner Survey show that, overall, participants in adult education programs have measured average literacy and numeracy skills that are significantly below those of the general population. Of the three domains assessed in the Learner Survey—prose literacy, document literacy, and numeracy—the performance of adult learners was lowest in numeracy. While one would anticipate that those participating in adult literacy programs would have lower skills than adults in the general population, the implications of the skill levels demonstrated by adult education participants are nevertheless important to consider.

The literacy measures used in the Learner Survey divide performance into five levels, with Level 1 representing the lowest skill levels and Level 5, the highest. A number of national and state organizations, including the National Governors Association, have identified proficiency in Level 3 as a minimum for success in today's labor market (see, for example, Comings, Sum, and Uvin 2000). The AEPS data show that, across all three domains measured, the highest proportion of adult learners performed in Level 1. This implies a critical need for these learners to develop their skills if they are to successfully participate in today's society. Changes in the workplace, in large measure driven by globalization and technological innovations, have increased the demand for workers with higher skills. In fact, projections suggest that professional, management, and technical occupations will generate about 46 percent of all job growth between 2004 and 2014. And it is workers in these job categories who will have access to on-the-job training programs that will allow them to keep abreast of changing technologies and continue to improve their skills (Kirsch et al. 2007). The workplace is thus one context in which those with the lowest skills are likely to struggle to succeed.

The AEPS data also highlight the central role that English language learning plays in adult education. Program Survey data show that ESL represented the largest type of instructional program in adult education. In fact, about half of all participants in adult education programs reported that English was not their native language. One important question is whether focusing instruction on improving the English language skills of these learners is sufficient to help them succeed in their everyday lives, or whether this population has additional educational needs. To address this question, the AEPS compared the performance of Spanish-speaking Hispanic learners on English and Spanish versions of the literacy assessment. Results showed that while Spanish-speaking Hispanic learners demonstrated somewhat higher average literacy skills in Spanish than in English, their skill levels were still well below those of the general population. Thus, ESL classes and the learners they serve face the dual challenge of improving not just English language skills, but literacy skills as well. And one would expect that this challenge will continue to grow, as U.S. Census Bureau projections show net international migration likely to account for more than half of our nation's population growth between 2000 and 2015 (Kirsch et al. 2007).

An important overall finding from the AEPS data was that 2.5 million learners are being served and that those learners represent individuals most in need of improving their literacy, numeracy, and English language skills. However, findings from the study also highlight important issues within adult education that will require additional consideration and discussion.

For example, data from the Program Survey showed that, on average, learners participated in adult education programs for well under one hundred hours over the course of a year. Of those learners, about a third gained one or more educational levels during the year. Given the educational needs of these adults and the

consequences of not meeting those needs, one question is whether learners are attending programs for sufficient periods of time to improve their skills to a level that will impact their ability to succeed in today's competitive societies and labor markets.

As national data show, the result of limited skills is limited opportunities to succeed. The goal of the AEPS was to collect and present representative data about adult education programs and the learners they serve—with the hope that this data will both inform and contribute to the national dialogue about adult education in its increasingly critical role in today's society.

## Note to Readers

Social science research by its very nature contains multiple sources of uncertainty and error. Examples include uncertainty and error introduced via sampling procedures, through the measurement instruments themselves, and as a result of variations in administration and scoring. All of these are inherent parts of any large scale assessment. In both the design and conduct of the AEPS, all participants strove to control and quantify errors that might interfere with or bias interpretation.

Program directors served as the contact point for the Program Survey. In some cases, directors were responsible for delegating the task of completing the survey to other staff in their programs. As the profile and tasks of adult education employees vary, so too will their knowledge about specific aspects of the programs. Knowing this, the survey included an extensive reference guide that included general definitions of terms used throughout the questionnaire as well as information that was designed to assist respondents in answering specific questions. Nevertheless, as is true in all surveys of this kind, differences may exist in how questions were interpreted and answered as well as in the level of knowledge respondents possessed about specific aspects of the programs. For example, while some administrators were responsible for and therefore familiar with budgetary issues, others were more familiar with the academic aspects of programs. These differences may have resulted in discrepancies between the data described in this report and official data that have been previously reported. Discrepancies may also exist between some of the program data collected in the AEPS and the state data contained in the annual report to congress for the 2001-2002 program year (Mike Dean, Office of Vocational and Adult Education, personal communication, January 12, 2007). This may result from different people responding to the AEPS and the NRS or it could result from the fact that AEPS was based on a sample of programs. Where such discrepancies exist, they have been noted throughout Chapter 1.

The chapters of this report that focus on the Learner Survey describe the literacy proficiencies of subpopulations of the adult learner population and general adult population by characteristics such as age, gender, race, ethnicity, birthplace, language, and educational attainment. While certain groups are identified as having lower average skills than others, within every group there were individuals who performed well and others who performed poorly. As a result, when one group is reported to have lower average proficiencies than another, this does not imply that these findings apply to all of the adults in either group. Such statements do not capture the variability in each group but are intended to highlight general patterns of differences among groups.

When comparing data presented in the tables included in this report with the analysis of that data in the text, readers will find that, in some cases, figures in those tables may not exactly match those presented in the text. Totals, differences and averages were calculated on the basis of exact numbers (including decimals) and were rounded only after the calculations were completed, thus resulting in minor discrepancies. The complete set of data from the AEPS Program and Learner surveys, as well as data from the ALL, can be accessed using an interactive data tool that can be found at [www.ets.org/etsliteracy](http://www.ets.org/etsliteracy).



# PART I

## The Program Survey

### A Description of the Program Survey

The Program Survey was one of the AEPS instruments designed to provide nationally representative information about adult education programs and their participants. Developed to elicit information about crucial aspects of program structure and operation, it covered the program year from July 1, 2001, to June 30, 2002. More than 1,200 adult education programs funded under the Adult Education and Family Literacy Act (AEFLA) participated in this survey. This sample represented more than 3,100 adult education programs in the United States. Information on these adult programs was collected through a questionnaire answered by program personnel. This Program Questionnaire (a copy of which can be found in Appendix A2) was organized into five sections.

1. The *program profile* section focused on characteristics of adult education programs including provider type, program size, budget, and the extent to which programs received support from external organizations.
2. The *instructional and support programs* section gathered information about the organization and conduct of instructional programs. Questions were asked about the type and availability of services, types of instruction offered, and characteristics of the participants served in the program.
3. The *program staff profile and characteristics* section asked for information about the staff working in adult education programs, with a special emphasis on instructional staff members and their certification and experience.
4. The *role and uses of assessment* section addressed the role of assessment and evaluation in adult education programs. Information was collected about purposes for assessment, the instruments used, whether participants were screened to identify special needs, and practices for providing feedback to learners from tests or assessments.
5. The *use of technology* section gathered data about the ways in which technology such as computers, the Internet, and audiovisual services were used in programs, particularly for instruction.

## Program Survey Highlights

Data from the Program Survey revealed an extensive delivery system with 3,108 funded programs serving 2.7 million adult learners at 29,424 learning sites. The data also showed that there was no prototypical adult education program. Programs varied in size, resources, instructional focus, and learner populations served.

Despite the fact that considerable variation was found across programs, some general findings can be reported. Overall, the data indicated that local education agencies were the major providers of adult education, followed by community colleges, community-based organizations and correctional institutions. However, the largest programs, in terms of median enrollment, were offered by community colleges. ESL represented the largest type of instructional program in adult education, followed quite closely by ABE. While ESL instruction focused most specifically on adults with limited English language skills, the program data also showed that some percentage of ABE and ASE instruction was offered in other languages, most often in Spanish. When attendance was investigated across programs, the average adult education participant attended his or her program for less than 100 hours over the twelve months reported. The majority of these learners participated in classroom-based and one-on-one instruction. Across provider types, instructional staff represented the largest program expenditures. To provide services to adult learners, programs depended on part-time staff and volunteers more than full-time staff. Programs reported that adult learners were assessed on a regular basis and generally had access to educational technologies including computers and video materials. These and other issues related to characteristics of adult education programs are examined in Chapter 1 of this report.



# Chapter 1

## Characterizing Adult Education Programs in the United States

### Introduction and Highlights

One key goal of the Adult Education Program Survey (AEPS) was to characterize the adult education program delivery system. As noted previously, more than 1,200 adult education programs funded under the Adult Education and Family Literacy Act (AEFLA) participated in this survey, a sample that represented more than 3,100 adult education programs in the United States. The survey collected information on aspects of program structure and operation during the July 1, 2001 to June 30, 2002 program year.

Each section of this chapter focuses on a set of important questions the survey was designed to address. The *program profiles* section addresses questions such as: What types of organizations run adult education programs? Where do they hold classes? How large are these programs in terms of enrollment and budget size? The *instructional and support services* section focuses on questions such as: What kinds of classes are offered to adult learners? How often do classes meet? What types of support services are offered to all learners and, in particular, to learners with special needs or English as a second language? The *program staff profile and characteristics* section looks at questions such as: What kinds of qualifications and experience do adult education instructors have? Do these instructors have opportunities for professional development? The *role and uses of assessment* section answers questions such as: For what purposes are standardized assessments used in adult education programs? What tests are used, and how often are they given? And the *use of technology* section examines questions such as: What kinds of educational technologies are used in programs? Are programs planning for future technology needs?

## Key Findings

Some key findings from the Program Survey data are highlighted below. These points, and additional findings from the survey, are examined in greater detail throughout the remainder of the chapter.

### Program Size

- Most programs in the survey sample could be characterized as small or midsized, with a median number of four sites, median total enrollment of 318 learners, and median total budget of \$199,000. The median expenditure per learner was \$626.<sup>1</sup>
- Twenty-five percent of the smallest programs were offered in only one or two sites, served up to 127 learners, and had a maximum budget of \$84,000. In contrast, 25 percent of the largest programs were offered in at least ten sites, served at least 731 learners, and had a minimum budget of approximately \$428,000.<sup>2</sup>
- The largest providers of adult education were local education agencies, which offered 54 percent of programs, serving 60 percent of adult education learners with a median enrollment of 336 learners and accounting for 58 percent of the total budget reported by all programs.
- The largest programs were offered by community colleges with median enrollments of 702 adults, serving 27 percent of adult learners and accounting for 20 percent of the total budget.

### Funding and Support

- As expected, adult education programs were largely supported by federal and state funding which, combined, provided nearly two-thirds of their funding.
- Adult education programs forged relationships with other organizations in the community (e.g., businesses, social service agencies, libraries) to receive assistance with activities such as program planning, recruitment, and referrals, as well as in-kind donations of facilities.

### Enrollment and Scheduling

- The majority of adult education programs offered classes for more than forty weeks with four to six hours a week the most commonly reported class time category.
- Open enrollment policies, which allow learners to begin and stop classes at any time, were common among adult education programs. Overall, 79 percent of programs used open enrollment. Of these programs, 70 percent indicated that open enrollment was used for more than 80 percent of their instructional services.

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<sup>1</sup> In the report to Congress, states reported an average median expenditure per learner of \$768 during the 2001-2002 program year (Mike Dean, Office of Vocational and Adult Education, personal communication, January 12, 2007). The \$626 and \$768 figures vary because of the different methods used to gather NRS data from the states and data for national surveys such as the AEPS (see Notes to Readers for a more elaborated discussion.)

<sup>2</sup> The distinction between programs and sites, as used in the Program Survey, is an important one to keep in mind when reviewing these data. A “program” is the entity funded to provide educational services and programs may have one or many sites where instruction is delivered. “Sites” are defined as the physical locations where instruction is offered.

- Adult education classes were offered mostly during work days and evenings. Two percent of programs offered instructional services on weekends.

## Instruction and Learning

- Programs reported that individual and classroom style instruction were the two most common learning environments, with each representing more than 30 percent of total learner instructional time
- For those programs that served special populations of adult learners (e.g., adults with learning disabilities, vision or hearing impairments), the most commonly reported instructional settings were inclusion programs in which instruction is offered within regular classes, as opposed to in special classes.
- Overall, a little more than one-third of learners completed an educational functioning level by the end of the program year. The educational functioning level is a measure of adult educational progress defined under the National Reporting System (NRS). Each level describes a set of skills and competencies for participants in Adult Basic Education (ABE), Adult Secondary Education (ASE) and English as a Second Language (ESL) instructional programs. ASE programs had the largest percentage of participants completing an educational level, followed by ABE and finally ESL. Slightly more than one-quarter of learners separated from their programs before completing an educational level.

## Staffing

- Full-time staff comprised the smallest group of employees in adult education programs. They were most highly concentrated in programs within correctional institutions where they represented 59 percent of the staff members.
- Part-time staff accounted for 40 percent of the work force in adult education programs. They represented the majority of staff members in programs offered by local education agencies and community colleges.
- Volunteer staff accounted for 43 percent of the employees in adult education programs. They were highly concentrated in programs offered by community-based organizations where they represented over 80 percent of the staff.
- Over three-quarters of the programs reported having minimum educational requirements for their full- and part-time employees. The most common educational requirements were a BA/BS degree and K-12 certification.

## Assessment

- Assessments were most commonly used in adult education programs for initial placement, to monitor learner progress, and to guide instruction. The Test of Adult Basic Education (TABE) was the most commonly reported standardized test for ABE and ASE learners. The Basic English Skills Test (BEST) was the most commonly reported standardized assessment for ESL learners.

## Technology

- Technology, including computers, video series, and online learning opportunities, was being used in a large majority of adult education programs. Decisions regarding technology were often made at the local

level. Over 40 percent of adult programs had formal technology plans that addressed issues related to the procurement and use of technology. When asked what would influence their ability to expand the use of computer technology, programs reported that financial resources and the ability to integrate technology into instruction were the most important factors.

## Program Profiles

The Program Survey represented 2,728,512 adults who were enrolled in adult education programs in the United States during the 2001-2002 program year.<sup>3</sup> These programs accounted for a budget of over \$1.6 billion and varied in important dimensions, ranging from the number of sites and number of adults enrolled, to their total budgets, as shown by the data presented in Table 1.1.<sup>4</sup> This section will present the Program Survey findings as they relate to variations across programs in terms of provider types, program size, budgets, funding sources, types of expenditures, and their collaborations with public and private organizations to develop and deliver services to adult education learners.

## Types of Providers

As mentioned previously, federal funding for adult education is authorized under the AEFLA. These funds are provided to state governmental agencies, which are responsible for distributing them to local adult education programs through a competitive grant process. While all programs follow federal guidelines for the distribution of funds, the administration and organization of adult education at the state level varies. Across different states adult education programs are the responsibility of Departments of Education, local school districts, Labor or Workforce Development Departments, community college systems, or some hybrid of these agencies.

The distribution of programs by providers was characterized as an important aspect to study in the AEPS in order to better understand adult education programs. Therefore the Program Survey collected data about the distribution of provider types, asking administrators to identify one of the following five provider categories as best characterizing their program.

- *Local Education Agencies*—These are typically public schools or school districts. In addition to K-12 education, they provide adult education classes open to all members of the community.
- *Community-Based Organizations*—This is a broad category which encompasses religious and social service groups, libraries, volunteer literacy organizations, literacy coalitions, community action groups, and other kinds of public or private nonprofit groups.

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<sup>3</sup> This 2,728,512 figure is the weighted sample of participants represented in the Program Survey. This value differs from the 2,429,531 figure used in Chapter 3 where the Learner Survey results are discussed. The latter figure is smaller because those learners with very low English-language skills who would not be able to complete the literacy and numeracy tasks were not included in the sample for the Learner Survey.

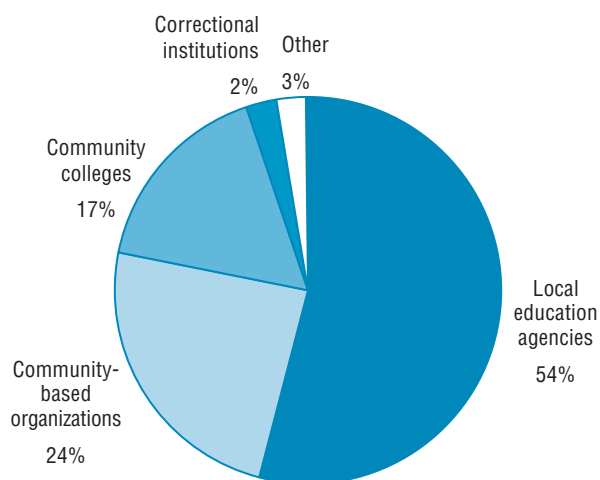
<sup>4</sup> The total budget figure of \$1.6 billion represents the weighted sum of budgets as reported by the programs, as shown in Table 1.1. During the same program year, states reported a total budget figure of \$2.1 billion (Mike Dean, Office of Vocational and Adult Education, personal communication, January 12, 2007). The difference between these figures most likely results from the use of different methods used to gather NRS data from the states and data for national surveys such as the AEPS. (See the Notes to Readers section of this report for a more elaborated discussion.)

- *Community Colleges*—These are institutions of higher education (e.g., junior colleges without residential facilities) which offer degrees below a bachelor’s degree or technical degrees or certificates, such as in mechanical or industrial arts, and applied sciences (e.g., technical colleges).
- *Correctional Institutions*—These include both prisons and jails that are funded by the state to provide adult basic education services to incarcerated adults.
- *Other*—Some examples in this category include public or private colleges which are not community colleges, libraries, departments of human services, institutions for disabled individuals, and other coalitions of providers, including those that include more than one of the provider types listed above.

As illustrated in Figure 1.1, data from the Program Survey revealed that the three largest providers of adult education programs in the United States were local education agencies (LEAs), community-based organizations (CBOs) and community colleges. LEAs represented the largest provider by far, offering over half of the adult education programs (54 percent). CBOs and community colleges offered 24 and 17 percent of programs respectively and correctional institutions were the smallest providers with 2 percent of adult education programs (see also Table 1.1).<sup>5</sup>

Figure 1.1

## Distribution of adult education programs among type of provider

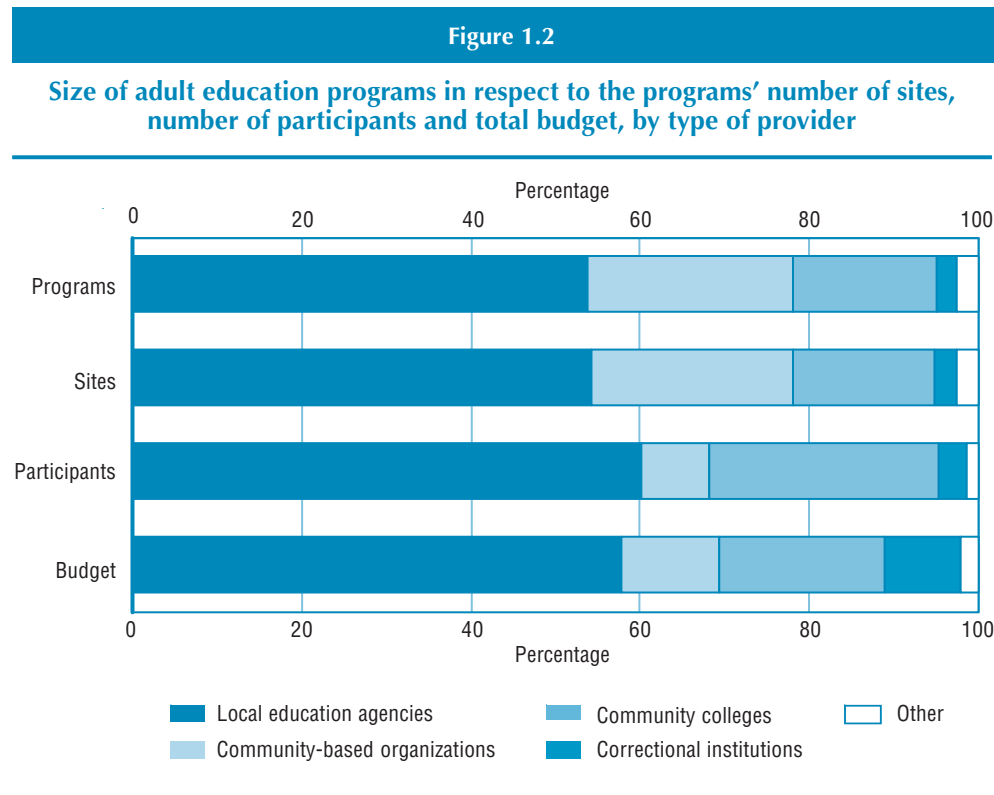


To further understand key aspects of adult education programs, in the following sections type of provider is examined in combination with other variables such as program size, funding sources and types of expenditures.

<sup>5</sup> The Adult Education and Family Literacy Act, under the Corrections Education section, specifies that “not more than 8.25% of the [federal] allotment may be used for educational programs for criminal offenders in correctional institutions and for other institutionalized individuals, including academic programs for basic education, special education programs as determined by the State agency, English literacy programs, [and] secondary school credit programs.” This requirement could explain the small percentage of correctional institution programs reported in the AEPS (Van Scoyoc Associates 2003).

## Program Size

Program size can be examined in terms of a number of variables including number of participants, number of sites, and overall budget. These dimensions should, however, not be misconstrued as indicators of program quality or effectiveness. Figure 1.2 provides an overview of the distribution of variables that are associated with the size of programs among the types of providers. Four variables—number of programs, number of sites where the programs were offered, number of participants that were served, and the overall size of program budget—will be jointly examined as indicators of size. Overall, median values show that adult education programs were offered in four sites, served 318 learners, and had a median budget of \$199,000.



As previously mentioned, LEAs represented the largest provider type. Not only did LEAs offer over half of the adult education programs (54 percent) but they also accounted for 58 percent of the overall budget for adult programs. Sixty percent of adult learners were enrolled in programs offered by LEAs and these programs had a median enrollment of 336 learners. In terms of program size, programs provided by LEAs were followed by CBOs and community colleges. While CBOs provided a quarter of adult education programs, they offered relatively small programs, serving only 8 percent of the adult learners with a median enrollment of 169 learners and accounting for 12 percent of the overall budget. In the case of community colleges, although the percentage of programs and number of sites were fewer than those of CBOs, community college programs were larger, serving 27 percent of the overall adult population with a median enrollment of 702 learners while accounting for 20 percent of the overall budget. Thus, while LEAs represented the largest provider overall in terms of numbers of programs, sites and budget size, community colleges offered the largest adult educational programs in terms of the numbers of students and accounted for the second largest percentage of the overall budget.

Additional questions of interest related to the distribution of sites, participants and overall budgets include the following: How were programs distributed among the various sites? Were participants evenly distributed between programs and sites? What about the distribution of program budgets? One way of examining these distributions considers individual points that break them into parts. When variables are normally (i.e., evenly) distributed, the mean and the median have the same value.<sup>6</sup> To eliminate the influence of extreme values, Table 1.1 presents information for the middle 80 percent of the distribution (i.e., the 10th and the 90th percentile points).<sup>7</sup>

As shown, the variables representing the number of sites, number of participants and overall budget were unevenly distributed, resulting in positively skewed distributions as some programs were much larger than average (i.e., there were larger differences between the median and the 90th percentile than between the 10th percentile and the median). Overall, 10 percent of the largest programs were offered in at least 19 sites and served at least 1,622 adult learners. On the other extreme, 10 percent of the smallest programs offered services in only one site and served 58 adult learners.

These differences were even more pronounced across providers. While LEAs were the largest provider, they offered programs in a relatively few number of sites. Only 10 percent of LEA programs were offered in more than 16 sites. On the other hand, community colleges offered 25 percent of their programs in more than 15 sites. Community colleges and CBOs offered programs in the largest number of sites with 10 percent of the programs being offered in more than 25 and 22 sites respectively. Community colleges and correctional institutions had the largest programs based on the median number of learners being served. The top 10 percent of their programs offered services to at least 2,700 and 3,900 learners respectively, while this figure was only 664 for CBOs.

Adult education programs also varied according to the settings that offered services. Common settings included public schools, community colleges, libraries, faith-based facilities, adult education centers, community centers, space provided by employers, and adult correctional facilities. For the majority of programs, public schools were the most common setting offering some services for 57 percent of the adult programs and serving some adult learners in 59 percent of the programs (see Figure 1.3). Also common were adult learning centers, community colleges and adult correctional facilities, with each offering some services to over one-third of the programs and serving some learners in over one-third of the programs.

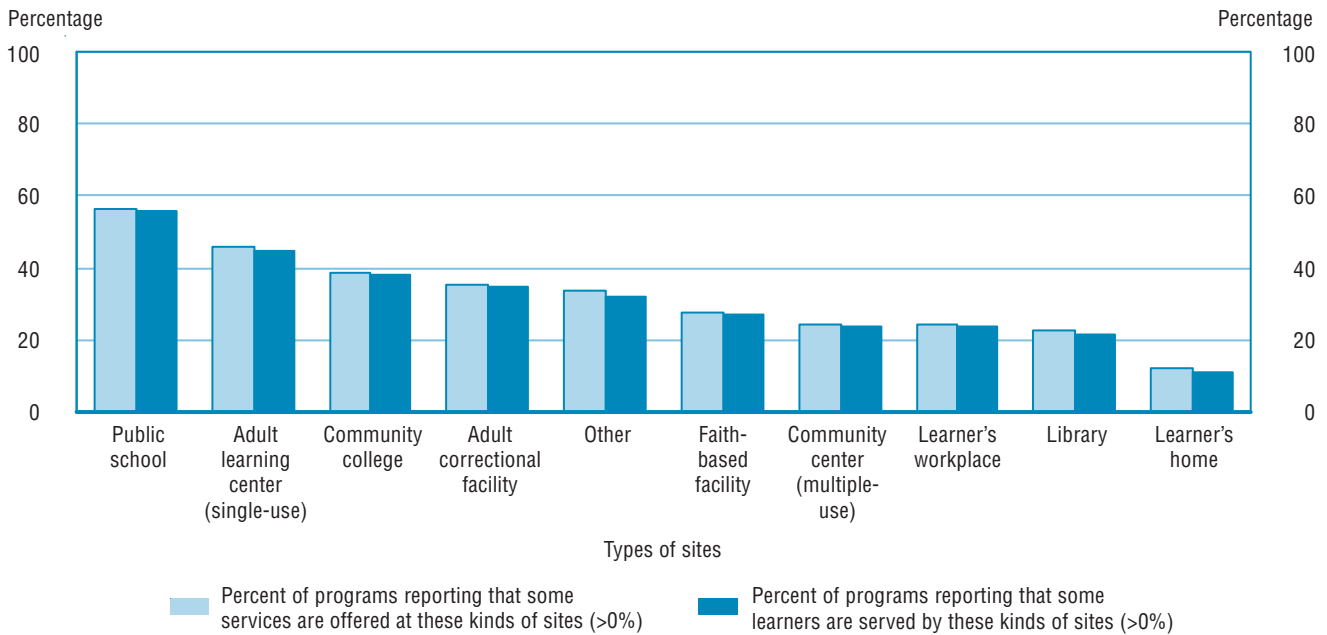
According to these data, a picture emerges of an adult education field in which local schools were the prevailing service providers. Thus, the major providers of adult education were also those responsible for providing education for children and youths younger than age 18 enrolled in primary and secondary education, although the services provided under adult education programs are independent of those provided by primary and secondary education, and are targeted to a unique population of learners. Local schools were also largely involved in planning adult education programs, recruiting, and making referrals, as well as providing staff, facilities, and other resources (see Table 1.6).

<sup>6</sup> See Appendix A1 for a definition of mean and median.

<sup>7</sup> See Appendix A1 for the definition of a percentile. The full database is considered in all analyses. That is, no cases have been excluded from the database for any analysis.

Figure 1.3

Instructional programs and learners served at various types of sites



### Budgets and per Pupil Spending

The Program Survey data showed a large range of variability for the size of individual program budgets, particularly when provider types were considered. Overall, the difference between the top and the bottom 10 percent of programs in terms of budget was \$814,000. Additionally, the discrepancy between the overall mean of \$532,000 and the overall median of \$199,000 illustrates the skewness or unevenness of the distribution, where the majority of programs have a relatively small budget with only a few having very large budgets.<sup>8</sup> For comparison purposes, three-quarters of CBO programs had budgets of less than \$299,000 and their median budget was \$121,000. In contrast, 50 percent of the community college programs had budgets larger than \$338,000.

These differences, while important and suggestive, should not distract from the larger point that all programs, independent of the type of provider they represented, had low per pupil spending rates. In terms of the median total enrollment and the median total budget figure, per pupil spending on adult learners was approximately \$626.<sup>9</sup>

<sup>8</sup> See Appendix A1 for a definition of skewness.

<sup>9</sup> This figure was obtained by dividing the overall median budget by the overall median number of participants, as shown in Table 1.1. In the report to Congress, states reported an average median expenditure per learner of \$768 during the 2001-2002 program year (Mike Dean, Office of Vocational and Adult Education, personal communication, January 12, 2007). The \$626 and \$768 figures vary because of the different methods used to gather NRS data from the states and data for national surveys such as the AEPS (see Notes to Readers for a more elaborated discussion).

Budget size and per pupil spending are not, by themselves, indicators of program quality or effectiveness, but in the case of adult education programs these should be examined in respect to attendance. When hours of attendance were examined in relation to the number of learners enrolled in programs, data showed that adults, in general, attended programs for a very limited number of hours. The Program Survey asked administrators to provide attendance information by type of instructional service, collecting data about ABE, ASE, and ESL services. Data showed that the median attendance/number of enrolled learners during the program year July 1, 2001 to June 30, 2002, was 57 hours for ABE learners, 41 hours for ASE learners, and 49 hours for ESL learners (see Table 1.2).<sup>10</sup> When the mean values were examined these values increased to 85 hours for ABE learners, 70 hours for ASE learners, and 98 for ESL learners.<sup>11</sup>

## Funding Sources

Overwhelmingly, adult education programs reported that they were supported by a combination of federal and state funding, rather than funding from local governments, private donations, or fees and tuition (see Table 1.3). Figure 1.4 shows sources of funding as a percentage of each program's total budget. While, by definition, all Title II programs receive federal funding, only eighty percent of programs reported that they received some funding from the federal government. Given the relatively low missing data figure for this question (0.5 percent), this finding might be explained by the fact that funding may not be documented in a way that allows local program staff to identify funding sources. In some cases it is also possible that the person completing the program questionnaire had limited knowledge of the overall program budget and funding sources. One-third of programs reported receiving over 50 percent of their funding from the federal government. State governments also financed adult education programs with 89 percent of programs reporting that they received some funding from this source, including 47 percent reporting that over 50 percent of their funding came from the state. Local governments provided some funding, but at much lower levels than federal or state governments.

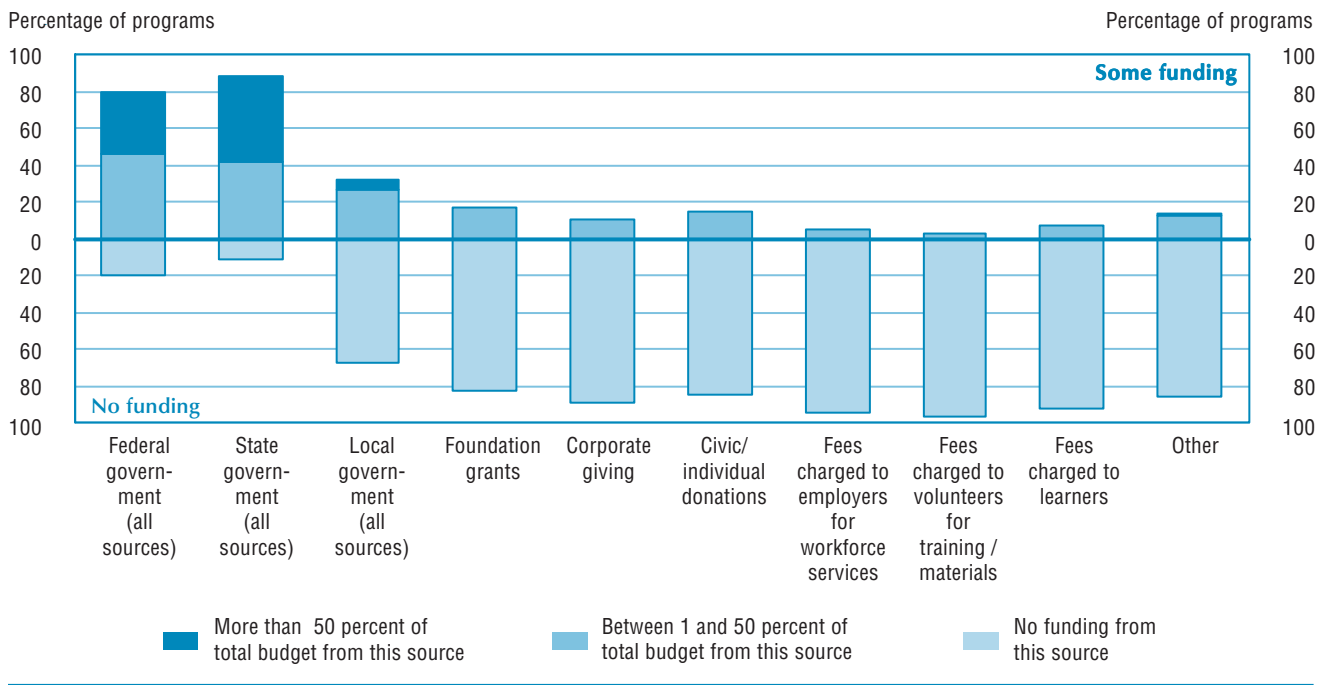
Table 1.3 also shows the percentage of funding received from various sources as a percentage of total budget, as well as the mean and median figures on these percentages, by providers. Based on the survey results, the distributions of funding sources across providers were quite similar for government funding (federal, state and local). Looking at the median percentages, LEAs and community colleges both reported that approximately one-third of their budgets were funded by federal sources, while CBOs reported that approximately one quarter of their budget came from these sources. CBOs received the least amount of funding from the state government (on average, 30 percent of their budget) while correctional institutions received the largest percentage of funding from this source (on average, 75 percent of their budget). On the other hand, CBOs reported receiving more financial support from a combination of foundation grants, corporate giving, and individual and civic giving than did the other providers.

<sup>10</sup> These figures were obtained by dividing the median number of attendance hours by the median number of learners enrolled in the program as shown in Table 1.2.

<sup>11</sup> These figures were obtained by dividing the mean number of attendance hours by the mean number of learners enrolled in the program as shown in Table 1.2. During the same program year, states reported the following mean attendance hours: 100 for ABE learners, 85 for ASE learners and 124 for ESL learners. While the precise figures vary due to differences between the AEPS study and the figures compiled under the AEFLA, the pattern remains the same. That is, attendance hours were highest for ESL learners and lowest for ASE learners, with hours for ABE attendance in the middle.

Figure 1.4

Sources of funding as percentage of total budget



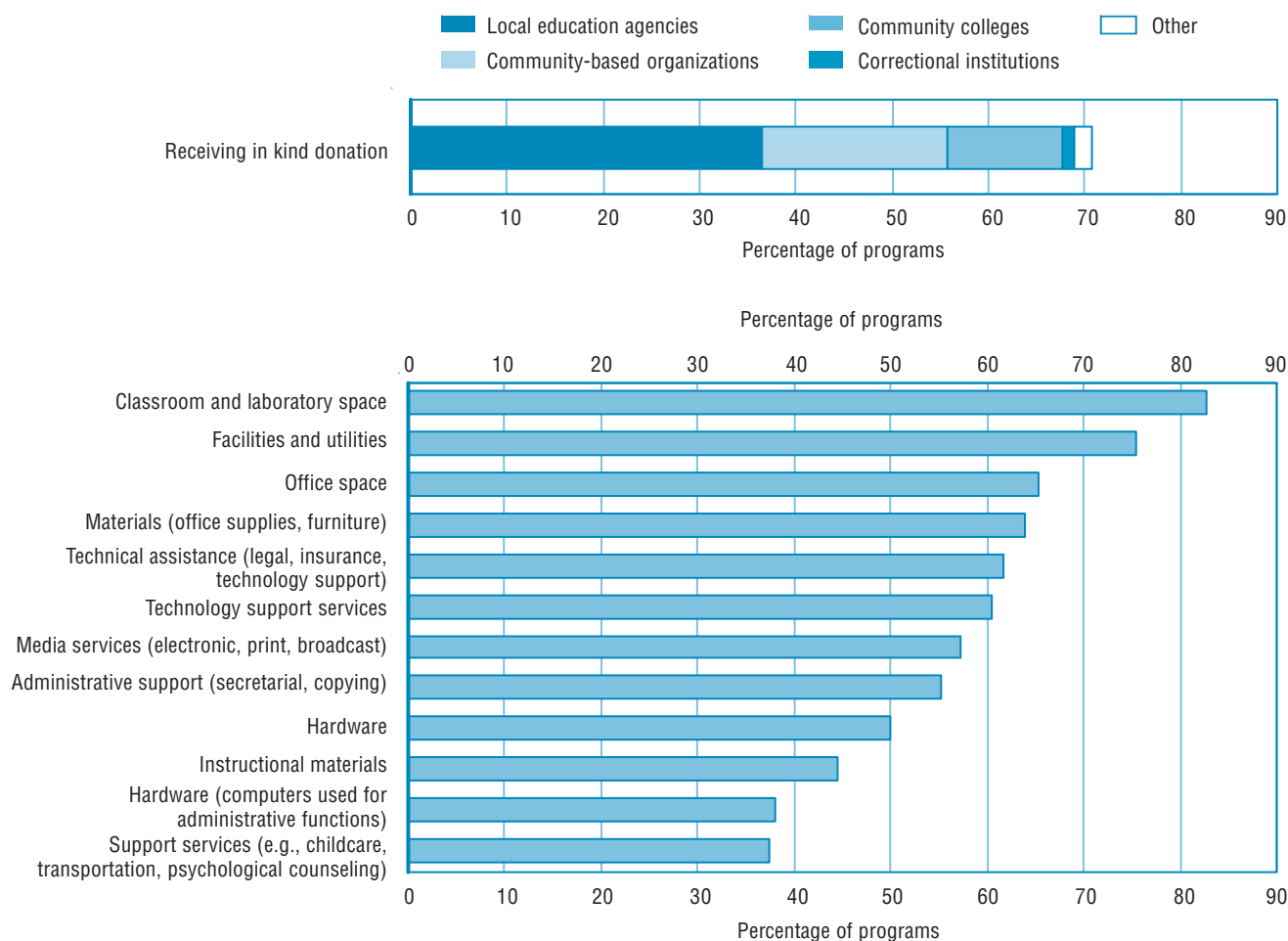
Programs also reported that they received additional support from in-kind non-cash donations which included materials (e.g., computer software and hardware), space (e.g., classrooms and offices), and services (e.g., legal assistance to programs, child care, and psychological counseling provided to learners) Such donations were quite common, with 71 percent of programs reporting that they received some type of in-kind donations (see the AEPS database<sup>12</sup>). Of the programs receiving such non-cash donations, 36 percent were LEAs, 19 percent were CBOs, 12 percent were community colleges, and less than 2 percent were correctional institutions and other providers (see top panel in Figure 1.5). Figure 1.5 also shows that the most commonly reported in-kind donations clustered around physical facilities and included classroom and laboratory space, facilities and utilities, and office space.

While fees represent another possible source of income for adult education programs, in general the collection of fees is discouraged. Department of Education regulations limit the collection of fees to only those that are “necessary and reasonable” and require that such fees do not pose a barrier to program participation, particularly for disadvantaged learners (U.S. Department of Education 2005). As a result, programs reported limited income from fees. Eighty-seven percent of programs reported that they did not charge any fees for assessments, 82 percent did not charge fees for books and materials, 85 percent did not charge tuition, and 76 percent did not charge any other fees (see the AEPS database). This reporting was consistent with the data shown in Table 1.3 where 92 percent of programs reported that fees charged to learners did not contribute to their overall budget.

<sup>12</sup> Data from the AEPS Program and Learner Surveys, as well as data from the Adult Literacy and Life Skills Survey (ALL), can be accessed using an interactive data tool that can be found at [www.ets.org/etsliteracy](http://www.ets.org/etsliteracy).

Figure 1.5

## In-kind services received by adult education programs



## Types of Expenditures

The Program Survey provided interesting data about how expenditures were divided among categories that included administrative staff, instructional staff, support staff, materials, equipment, and technology (see Table 1.4). Across all programs, the largest expenditure was on instructional staff for the creation and delivery of instruction. The median value reported was 55 percent of the total expenditure. The second largest expenditure category was administrative staff comprising 10 percent of the total when based on median values. The next largest expenditure categories were instructional materials and equipment, and clerical and other staff costs, with each accounting for about 5 percent of expenditures based on median values. Two of the smallest expenditure categories were related to technology and professional development. While 80 percent of programs reported that adult learners used computers for instructional activities and 95 percent of programs reported that their instructional staff used computers for the same purpose, very few funds were spent on instructional technology and support services. This may be related to the fact that

hardware for instruction and technology support services were reported as in-kind donations by 50 and 60 percent of programs respectively. In addition, only a small percentage of program budgets was reported to have been spent on professional development.<sup>13</sup>

Table 1.5 shows expenditure as a percentage of the overall budget for the different types of providers. The situation across providers did not differ significantly. Median values showed that CBOs spent the least amount of funding for instructional staff (47 percent) and 15 percent of their budget on administrative staff. Besides these two categories, programs spent, on average, between 3 and 9 percent of their budgets on clerical and other staff, and instructional materials or equipment. Data also showed that CBOs spent, on average, over 6 percent on facilities, utilities and custodial services, while other providers spent less than 3 percent. This may indicate that CBOs are either responsible for absorbing more of these costs than other providers or that these costs are represented by in-kind contributions for the other providers.

## Collaborations with Public and Private Community Organizations

Adult education providers do not exist in a vacuum. A wide variety of stakeholders in the community participate in the development and delivery of services. The ways in which organizations—such as local schools, community colleges, state and local employment agencies, businesses, foundations, media organizations, public libraries, and other state agencies—are involved in adult education programs may play an important role in their effectiveness and scope as well as the extent to which these programs meet the needs of the community.

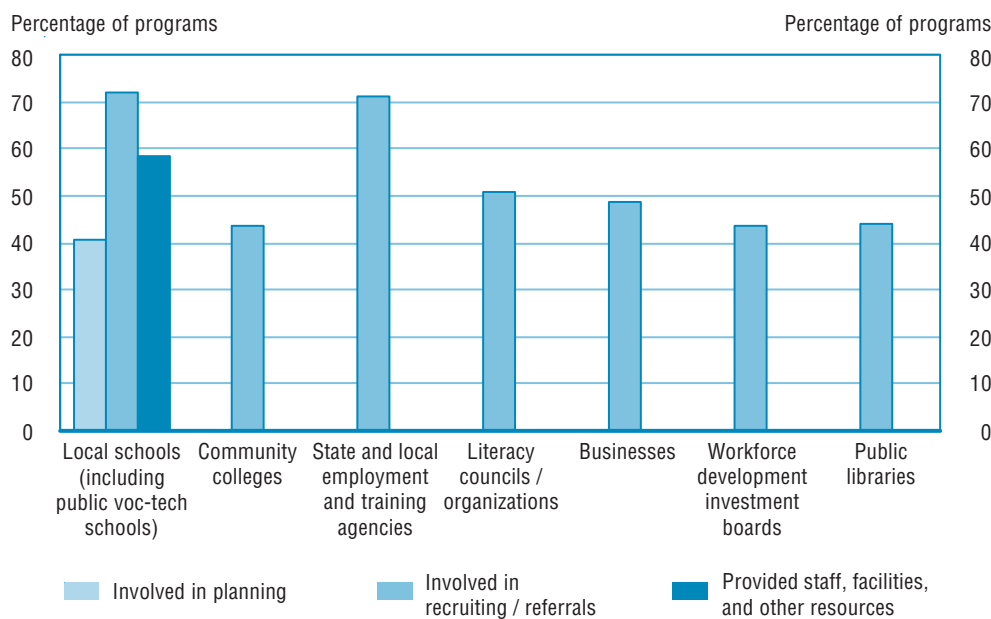
Figure 1.6 shows the involvement of different types of organizations in specific aspects of adult education programs for categories in which more than 40 percent of the programs reported some involvement (see also Table 1.6). Overall, recruiting and referrals was the category in which organizations were most heavily involved with adult education programs. Looking across types of organizations, 92 percent of programs reported that local schools were involved in some aspect of their programs, particularly in planning, recruiting and referrals, and providing staff, resources and facilities. LEA programs reported the highest level of support from local schools, followed by CBOs and community colleges. Adult education programs were also supported by a variety of other types of organizations. For example, 29 percent of programs reported some involvement of labor unions, 31 percent reported the involvement of AmeriCorps, 44 percent reported the involvement of hospitals, and 50 percent reported the involvement of foundations in their programs.

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<sup>13</sup> The Adult Education and Family Literacy Act, under the State Leadership Activities section, specifies that up to 12.5% of the federal allocation may be used for professional development activities. The very small percentage that programs reported investing in professional activities may indicate that this funding was not included in the figures they reported (Van Scoyoc Associates 2003).

Figure 1.6

### Level of involvement of selected public and community organizations in selected aspects of adult education programs



Note: This figure shows only the categories where more than 40 percent of the programs reported involvement.

It is worthwhile expanding on another category of community involvement, which is funding. Table 1.3 shows that government sources (at the federal, state and local levels) accounted for the majority of funding for adult education programs. The next largest category was contributions from foundations and civic or individual donations with around one-sixth of the programs reporting donations from these sources. When viewed by provider type, 42 percent of CBOs reported receiving funding from foundations while 10 percent or fewer of other providers reported receiving such funding. This funding comprised a small percentage of support for all types of providers—however, when such funding was forthcoming it was, by and large, directed to CBOs.

## Instructional and Support Services

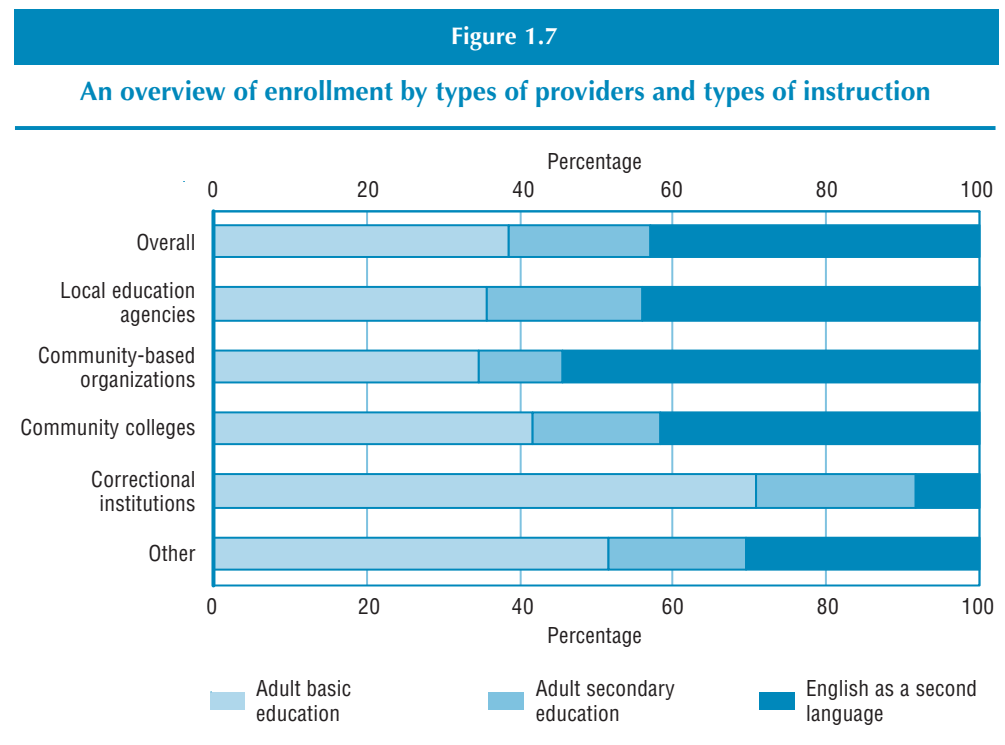
### Types of Instructional Services

Adult education programs typically offer different kinds of instructional services categorized according to the skill level or language background of learners. These include the following three types of instruction:

- **Adult Basic Education (ABE)** instruction is “designed for adults who lack competence in reading, writing, speaking, problem solving or computation at a level necessary to function in society, on a job or in the family” (National Reporting System for Adult Education 2001, 25). ABE learners participate in programs to acquire basic literacy and numeracy skills.

- **Adult Secondary Education (ASE)** instruction is “designed to help adults who have some literacy skills and can function in everyday life, but are not proficient or do not have a certificate of graduation or its equivalent from a secondary school” (National Reporting System for Adult Education 2001, 25). Typically, these learners attend ASE classes to obtain a GED or adult high school credential.
- **English as a Second Language (ESL)** instruction is “designed to help adults who are limited English proficient achieve competence in the English language” (National Reporting System for Adult Education 2001, 25).

The survey data showed that type of provider and type of instruction were not related; that is, providers tended to offer more than one type of instruction in order to serve the varied needs of their learners, as shown in Figure 1.7. When the median enrollment of 318 learners across programs (previously shown in Table 1.1) was broken down by instructional category, the largest category was ABE with a median enrollment of 132 learners (see also Table 1.2). Thirty-nine percent of adult learners received ABE instruction. Among providers, correctional institutions had the largest percentage of ABE learners at 71 percent. Overall, 19 percent of learners participated in ASE instruction. Across providers, the distribution of participants was uniform with between 10 to 20 percent of learners participating in programs that offered ASE instruction. Forty-three percent of learners participated in ESL instruction, representing the largest group across types of instructional services. Across providers, 54 percent of learners in CBOs and approximately 44 and 42 percent of learners in LEAs and community colleges respectively received ESL instruction.



The state and federal governments require that adult education programs report basic information about learners for each program year and for each educational functioning level, including the number of learners enrolled, number of attendance hours, number of learners who completed an educational functioning level, number of learners who remained at their initial educational functioning level, and number of learners who separated from the program before completing it.<sup>14</sup> Table 1.2 and Table 1.8 show a selective set of variables for each type of instruction. Consistent with findings observed for program size, the data by instructional categories for enrollment, attendance hours, and completed levels were quite skewed and, as seen by the difference between the mean and the median, there were a few programs with very large enrollments (e.g., four programs offering ABE instruction, two offering ASE instruction, and 12 offering ESL instruction reported enrollments of over 10,000 learners), very large total numbers of attendance hours and very large numbers of students completing levels.

## Intensity of Instructional Programs and Educational Gains

Programs were asked to provide information about the intensity with which each type of instruction was offered. They reported the number of weeks per year that classes were held and the number of hours per week that instruction was offered. For the most part, programs reported holding classes for more than 40 weeks per year (see Table 1.9). This finding held across types of instruction. Seventy percent of programs reported offering ABE classes for more than forty weeks per year, while 59 percent of ASE classes and 50 percent of ESL classes were offered for more than forty weeks per year.

The intensity of scheduled class times was reported across five categories ranging from three or fewer hours to twenty or more hours during a typical week. Four to six hours per week was the most frequently reported category for all three types of instruction, which included 34 percent of ESL, 31 percent of ABE and 26 percent of ASE classes. Interestingly, on average, about 20 percent of ABE and ASE providers indicated that classes were offered for 20 or more hours a week compared with only 9 percent of ESL providers (see Table 1.9). At the other extreme, an average of 11 to 15 percent of providers reported that they offered instructional services for 3 or fewer hours each week.

The intensity of programs can also be examined in respect to the type of enrollment the program offered—either open or managed enrollment. Open enrollment programs allow learners to begin and stop classes at any time while managed enrollment programs follow a more traditional education model, specifying when learners can enter a program. Survey results showed that open enrollment was the most common option among adult education programs. Overall, 79 percent of programs reported using this method for some part of their services. Seventy percent of programs reported using open enrollment to a great extent while only 12 percent of programs reported that this method was not used at all (see Table 1.10).<sup>15</sup> In contrast, only 21 percent of programs, on average, reported using managed enrollment.

<sup>14</sup> These represent learners who left the program or received no services for 90 consecutive days and had no scheduled services.

<sup>15</sup> Programs were considered to use open enrollment “to a great extent” if they used it for more than 80 percent of their instructional services.

This survey showed mean attendance for adult learners to be somewhere between 80 to 100 hours, which was consistent with findings from the National Reporting System (see Table 1.2). An attempt was made to estimate the amount of instructional time an adult learner spends in class in a given year. However, this analysis was not possible. Some issues which could not be addressed by these data were whether learners attended these hours continuously or if they interrupted their attendance and later returned to the beginning of the level they most recently left.

Program effectiveness is a multidimensional characteristic which could not be thoroughly investigated using these data. What could be examined were the reported rates of student progress based on educational functioning levels. Learners who enroll in adult education programs are classified into educational functioning levels based on an intake assessment. Educational gain, “a measure of student literacy gains resulting from instruction,” is measured by comparing results from the intake assessment with results from assessments taken following instruction.<sup>16</sup> When programs were asked about the number of instructional hours that learners received between the pretest and the posttest assessments, the two most common categories of answers, selected by around 40 percent of the programs, were 30 to 50 hours, followed by 51 to 80 hours, selected by about one quarter of the programs (see Table 1.7).

One-third of all enrolled learners completed one educational functioning level, and one-fifth completed an educational level and advanced one or more levels (see Table 1.8). About 32 percent of learners remained at the same educational functioning level as when they first entered their programs, based on results from an intake and subsequent assessments. While noteworthy, the fact that 27 percent of learners left the program before the completion of an educational level should not draw attention from the positive retention rate of 73 percent of learners (see Table 1.2 and Table 1.8).

These data make it difficult to identify the relationship between intensity and learner progress. As the data showed, roughly one-third of adult learners completed an educational level during a program year. However, further studies might examine the influence of intensity of classes or class schedule on the success of learners as well as whether those learners that left their programs returned to them later, issues that were not directly addressed in this study.

## Instructional Settings

The previous section described the amount of time that programs scheduled classes. Another issue worth examining is the instructional settings offered by programs, including both the times of day when classes are available and the kinds of instructional techniques or approaches that are provided.

On average, most adult education classes were conducted either during the workday or in the evening. On average, 57 percent of the programs offered instructional services during the day, 42 percent offered them during the evening, and the remaining 2 percent offered them on weekends (see the AEPS database).

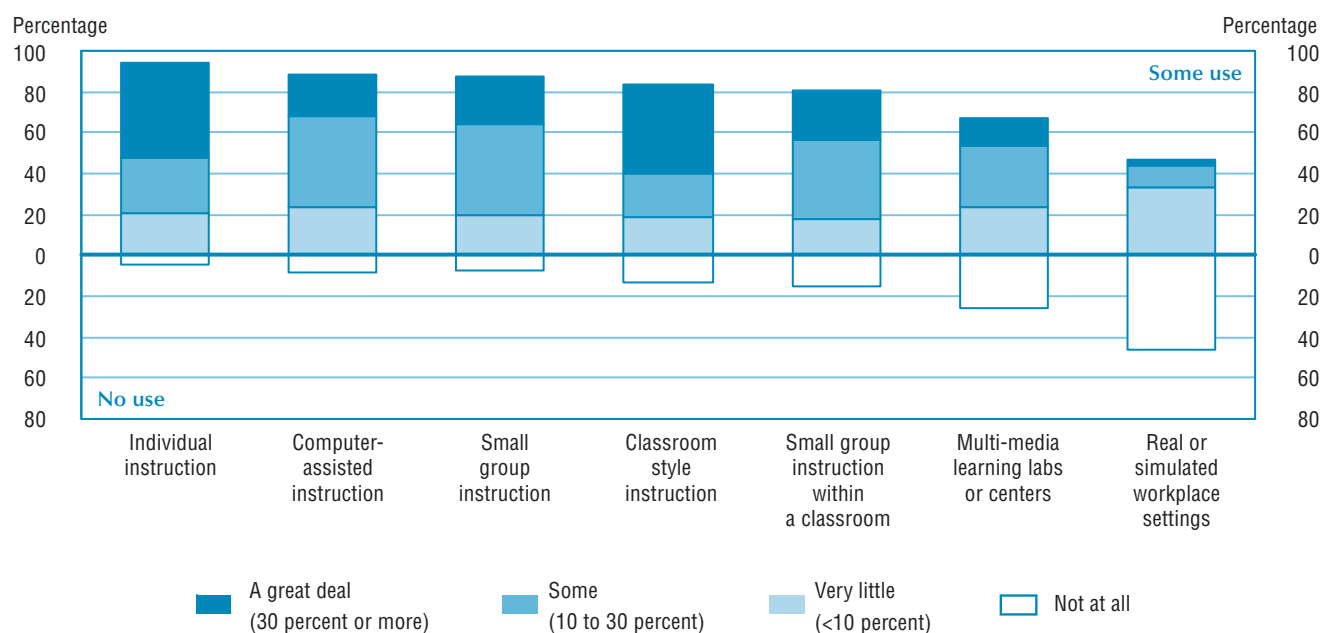
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<sup>16</sup> Educational functioning level is determined by an intake assessment. There are four levels of ABE, two for ASE, and six levels of ESL. Educational gain is determined by comparing the student’s initial educational functioning level with the educational functioning level measured by the follow-up assessment or post-test. To allow local programs to determine gain, the state must use the educational functioning level definitions and correlate assessment scores to specific levels. It is important to note that if a student is not post-tested, then no advancement can be determined for that student. The student must remain in the same level as initially placed for NRS reporting (National Reporting System for Adult Education 2001).

Previous research has shown that instructional techniques used in the classroom are likely to influence learning, as adult learners need to be actively involved in the learning process and be able to connect learning with their accumulated life experiences and knowledge (Lieb 1991). These learners have diverse backgrounds and are likely to attend adult education programs for a variety of reasons. Therefore, programs need to be designed to accommodate the variety of needs adult learners present. As shown in Figure 1.8, the Program Survey data showed that 46 percent of programs reported using individualized instruction a great deal (defined as more than 30 percent of total learner instruction time) and 43 percent of programs reported using classroom style instruction a great deal. Thirty-nine percent of programs reported using small group instruction within a classroom and 44 percent reported using computer-assisted instruction for 10 to 30 percent of the instruction time. One additional finding of interest was that the workplace setting, either real or simulated, was the least reported learning environment, with 46 percent of programs reporting it was not used at all.

Figure 1.8

### Percentage of adult education programs using specified learning environments

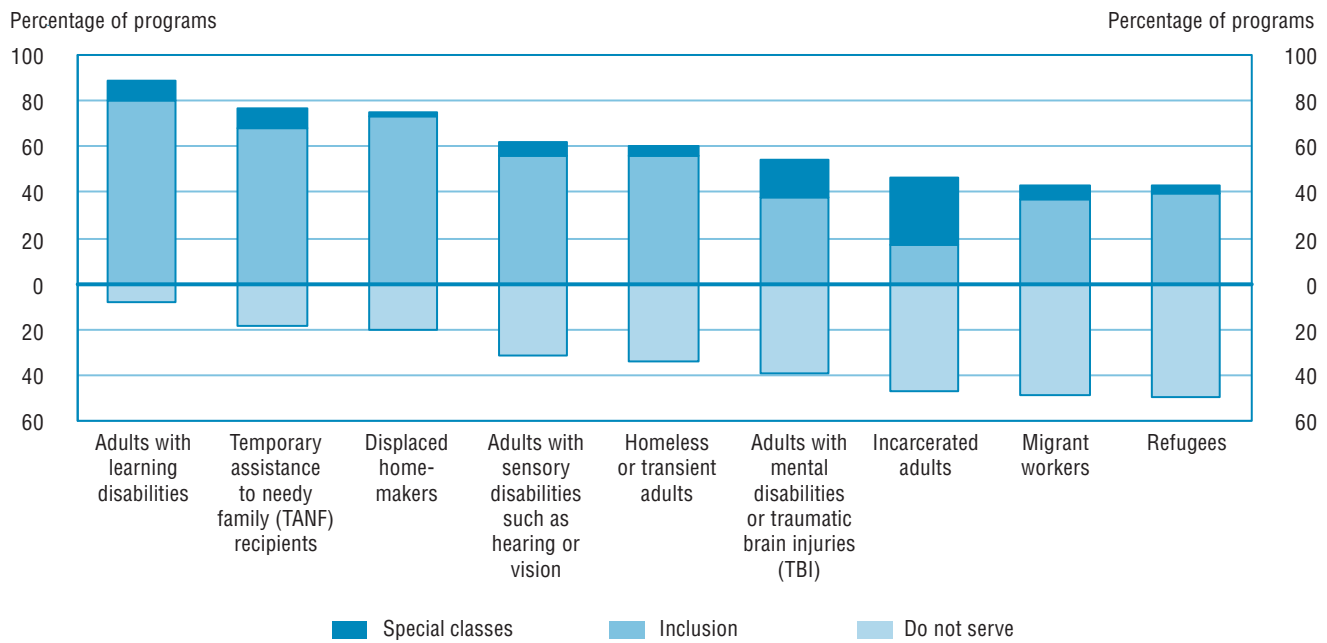


## Providing Services to Populations with Special Needs

The AEPS collected data from programs about whether they provided instructional services to a range of special populations including adults with mental, learning and sensory disabilities, temporary assistance to needy family (TANF) recipients, displaced homemakers, homeless or transient adults, migrant workers and refugees (see Figure 1.9). Incarcerated adults, while distinct from these other groups, were also included in the special populations listed in the program questionnaire and thus are included in Figure 1.9.

Figure 1.9

Services to special populations



Additional data was collected about the methods used for screening adults for sensory disabilities, learning disabilities and mental disabilities. Few programs reported that they required screening for disabilities and, of those that did, even fewer reported the use of cognitive instruments, clinical methods, or physical exams as part of that screening. Programs indicated that adults with learning disabilities were by far the largest served group with special needs: 89 percent of programs reported that they provided services to this population. However, only 34 percent of programs required screening for learning disabilities and, of these, 4 percent reported using cognitive or clinical instruments while 62 percent relied on self-reports. Sixty-two percent of programs reported that services were provided to adults with sensory disabilities, with 18 percent of programs requiring screening but less than two percent of programs using a physical exam as their screening method. Seventy-six percent used self-reports to screen for sensory disabilities. Finally, 54 percent of programs provided services to adults with mental disabilities or traumatic brain injuries. Twenty-three percent of programs reported that they required screening and, of these only two percent used a cognitive or clinical instrument while 68 percent used self reports to screen for mental disabilities or traumatic brain injuries.

Despite the large number of programs that reported serving adults with learning disabilities, very few programs either had instructors with special education certification or required that training. Given the low percentage of programs that reported using formal screening methods to identify learners with learning disabilities, it is difficult to ascertain the extent to which adults in those programs had learning disabilities as formally defined under federal legislation—and therefore required instructors with specialized training—or had a variety of learning difficulties that may or may not have required instructors with special education training. With that caveat in mind, the data showed that consistently across ABE, ASE and ESL instruction about 2 percent or fewer of programs required their full-time, part-time,

or volunteer instructors to have special education certification (see Table 1.13). The Program Survey also collected information about the credentials that instructors had obtained (see Table 1.14). Looking at the credentials that were reported, part-time instructors were most likely to have special education certification, with about 12 percent of ABE instructors, 8 percent of ASE instructors, and 5 percent of ESL instructors reporting that credential. The percentage of full-time instructors certified in special education ranged from just over 1 percent among ESL instructors to about 5 percent for ABE instructors. Two percent or fewer of volunteer instructors were reported to have special education certification.

Programs that reported serving any of the special populations described above were asked if instructional services were provided in special classes or if an inclusion model was followed. Inclusion was defined in the program questionnaire as “providing reasonable accommodation and assessments within regular classrooms for learners with special needs.” For adults with learning disabilities, 80 percent of programs reported that inclusion was the method they most often used (see the AEPS database). Although this percentage was smaller for other groups of adults with special needs, the percentage of programs that reported using inclusion still remained much larger than those that reported using special classes.

## Providing Services to Adults with English as a Second Language

As noted in the General Introduction to this report, changes in national demographics are affecting the education system in the United States as well as characteristics of the labor market. According to the 2000 U.S. Census, Hispanics represented the largest ethnic group at 12.5 percent of the overall U.S. population and this group is expected to grow to about 20 percent over the next 25 years. While Hispanic adults represent the largest and fastest growing population of adult learners, they are not the only immigrant group served by adult education programs. The Learner Survey data, in fact, reveal that some 35 percent of ESL learners reported that they were not of Latino or Hispanic origin (see the AEPS database). Regardless, immigrants are expected to contribute significantly to the net growth of our population over the next 25 years and especially to the U.S. workforce. As a result, there is a growing need to provide immigrant adults with the necessary language and literacy tools for active participation in our society (see Chapter 3 for the characteristics of adult learners and Chapter 4 for more detailed characteristics of the Hispanic population).

ESL instruction exists to serve adults with limited English proficiency. As previously noted, ESL represented the largest instructional category reported in the Program Survey, with 43 percent of adult learners receiving ESL instruction (see Table 1.2). According to the Learner Survey, 99 percent of ESL students were not born in the United States and 65 percent of them were of Hispanic origin. Besides ESL instruction, which specifically addresses learners with limited English language skills, the data also showed that both ABE and ASE instruction was offered in other languages to accommodate learners with limited English proficiency. Fourteen percent of ABE classes were offered in Spanish with an additional 2 percent offered in other languages. This percentage was slightly smaller for ASE classes, with 9 percent offered in Spanish and one percent offered in other languages.<sup>17</sup>

<sup>17</sup> Programs were asked to specify “other” languages. Responses, (some of which were not languages, perhaps as a result of misunderstanding the question) included: Arabic, Chinese, Chinese Russia, Creole French, Czech, deaf-hard of hearing, ESL, French, Haitian Creole, Japanese, Korean, Navajo, Polish, Vietnamese, pre-ASE, and sign language.

## Program Staff Profile and Characteristics

Adult education programs are generally staffed by a combination of full-time, part-time, and volunteer staff with various responsibilities in terms of administration, support, counseling, and instruction. The data from the Program Survey provide a description of the involvement of staff members in adult education programs, including the educational backgrounds and credentials of those in the teaching force and their level of experience in the programs in which they worked.

Full-time employees, or those who work 35 or more hours per week, represented 17 percent of staff members (see Table 1.11).<sup>18</sup> On average the distribution of these employees was very skewed with an average of seven but a median of three full-time staff members per program. Only 10 percent of programs reported having 12 or more full-time staff members. Close to 60 percent of all full-time staff worked in LEAs. In comparison, only about 13 percent and 16 percent of full-time workers were employed by CBOs and community colleges respectively, and less than 10 percent of full-time employees worked in correctional institutions (see first chart in Figure 1.10).

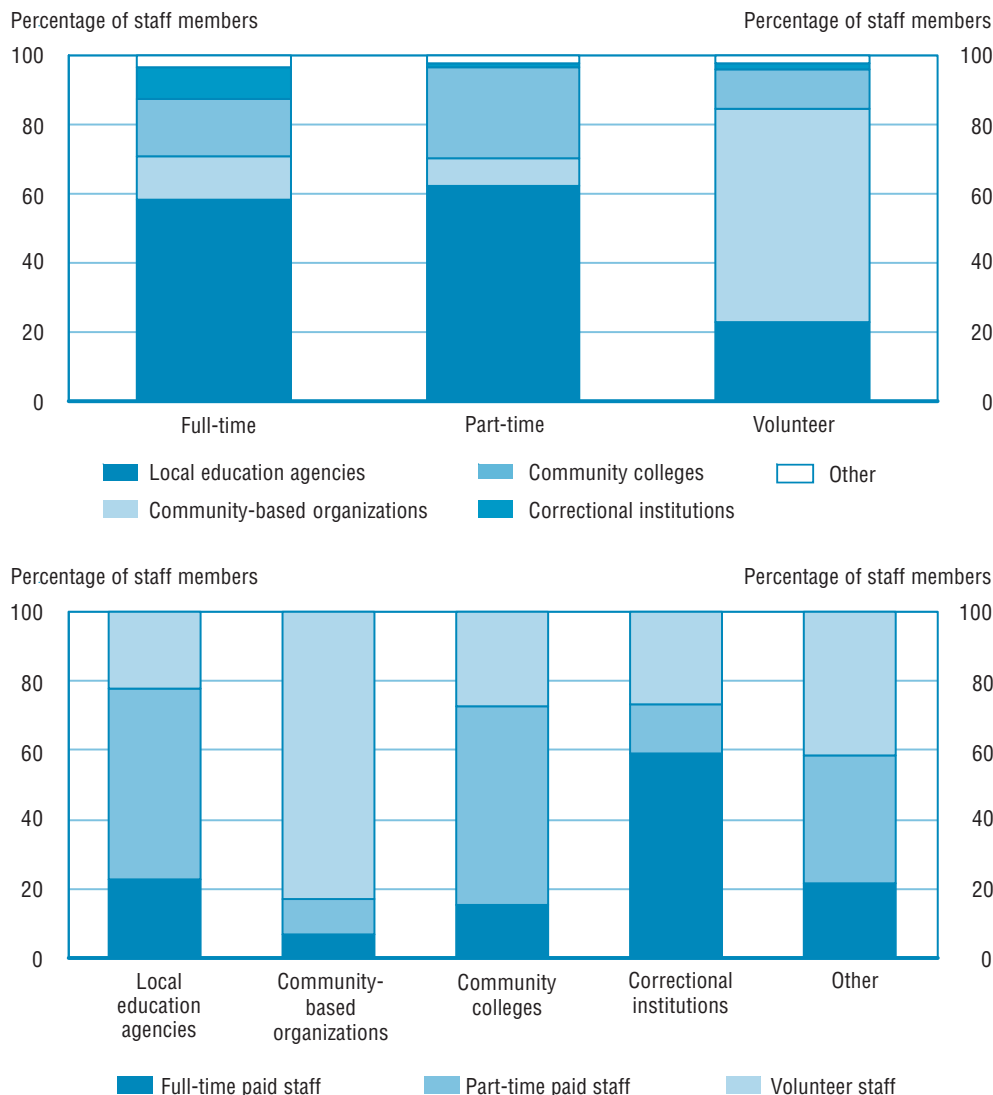
The second type of staff members, those that work in adult education programs on a part-time basis, represented 39 percent of the workforce (see Table 1.11). These values were also unevenly distributed with an average of 19 and a median of 8 part-time staff members across programs. However, the largest 10 percent of programs reported having at least 37 part-time staff members. Like full-time staff, part-time paid staff members were also concentrated in LEAs, where about 60 percent of them were employed. The percentage of part-time staff working in CBOs was just over eight percent and was about three times higher (26 percent) in community colleges. Only 1 percent of part-time employees worked in correctional institutions (see first chart in Figure 1.10).

The third type of staff members are volunteers, who accounted for 43 percent of the work force in adult education programs (see Table 1.11). On average there were 21 volunteers working as staff members per program, but again these results came from skewed distributions. Large numbers of volunteers were concentrated in a few programs, with half of the programs having up to two volunteers and 10 percent relying on 50 or more volunteers to provide services. The distribution of volunteer staff was different than that of paid staff members, with volunteers concentrated in CBOs where 62 percent of them worked. Only about 23 percent of volunteer staff members worked in LEAs and about 11 percent of volunteers worked in community colleges (see first chart in Figure 1.10).

<sup>18</sup> Percentages based on the total number of staff in the program as reported in the Program Survey.

Figure 1.10

### Distribution of staff members within types of employees and within providers



Part-time paid employees and volunteers were approximately equally distributed in overall percentage (around 40 percent each) and in mean number of staff (around 20 each). However, as the number of staff members is associated with the size of the programs, these distributions were highly skewed. Median values showed that, overall, programs had three full-time paid employees, eight part-time paid employees, and two volunteers. On average, smaller programs had more paid part-time staff members than volunteers, while the opposite was true for larger programs.

### Distribution of Staff within Types of Providers

The distribution of staff members can also be looked at another way, based on their distribution within types of providers (see second panel of Figure 1.10). In LEAs, the majority of employees (55 percent) were part-time paid staff with additional staff about evenly split between full-time employees (23 percent) and volunteers (22 percent). This pattern was most similar to the distribution of employees in community

colleges where 57 percent were part-time staff while 16 percent were full-time and 27 percent were volunteers. In contrast, CBOs were largely staffed by volunteers, with 83 percent of their staff falling into that category. Only about 7 percent of staff in CBOs were full-time and just over 10 percent were part-time. Correctional institutions had by far the largest percentage of full-time paid staff, at 59 percent. About 14 percent of their employees were part-time paid staff and, similar to LEAs and CBOs, about 26 percent of their staff were volunteers.

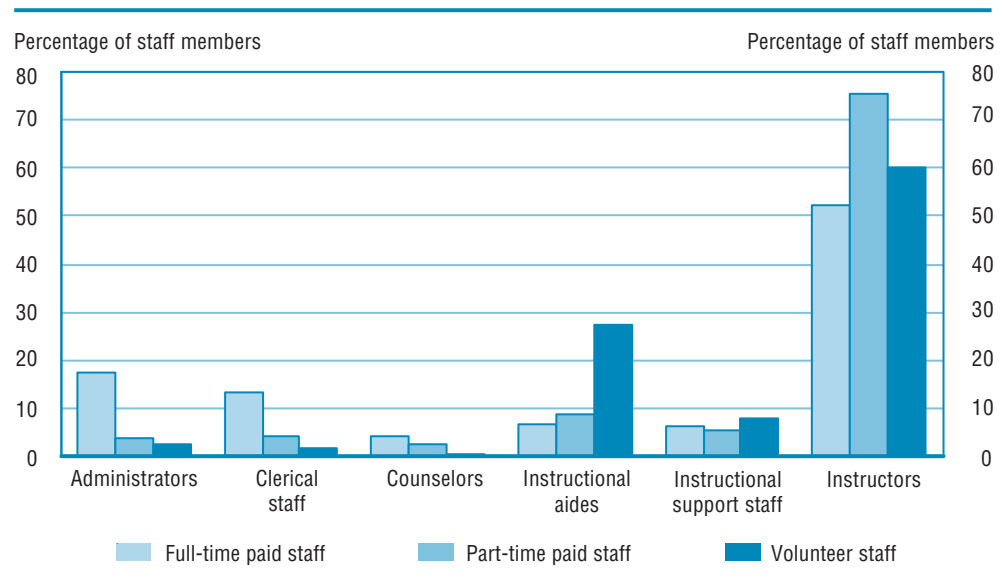
These uneven distributions of types of employees are also associated with the size of programs. For example, the largest 10 percent of CBO programs, (i.e., 90th percentile) had at least 8 full-time employees, 15 part-time staff, and 196 volunteer staff. This is in contrast to the finding that the largest 10 percent of programs in correctional institutions had at least 101 full-time staff, 24 part-time staff and 10 volunteer staff (see Table 1.15).

### Roles, Experience, and Credentials of Adult Education Staff

The distributions of staff members across various tasks such as administration or instruction were by no means consistent or symmetric, as shown in Figure 1.11 and Table 1.11. Across programs, administrative and clerical tasks were largely managed by full- and part-time paid staff. On the other hand, instruction was delivered mainly by part-time staff members while volunteers represented the main group for instructional aides. Volunteers also showed a strong participation in instruction. Seventy percent of volunteers who worked as instructors were in programs that reported using individualized instruction to a great deal (more than 30 percent of total learner instructional time) while approximately half were in programs that reported not using classroom style instruction. These findings suggest that while volunteers were widely used as instructors, many provided one-on-one tutoring as opposed to classroom based instruction (see the AEPS database).

**Figure 1.11**

**A profile of staff in adult education programs: full-time paid, part-time paid and volunteer**



Professional experience was another variable investigated in the program questionnaire. Data showed that adult education programs had full-time instructors who were, in general, quite experienced in the programs in which they worked. Thirty-one percent of programs reported that they had full-time instructors who had been teaching in the program for 4 to 10 years, and 33 percent of programs reported having instructors who had been teaching for 10 years or more (see Table 1.12). Seventy-two percent of programs reported that none of their full-time instructors had been teaching in their program for less than one year. Consistently, part-time instructors were also quite experienced in the programs where they worked, with 58 percent of programs reporting that they had part-time instructors with 4 to 10 years of experience and 47 percent of programs reporting that some instructors had been teaching in the program for more than 10 years (see Table 1.12). In contrast, volunteers tended to be less experienced. Thirty-one percent of programs reported having volunteer instructors who had been teaching in their program for one year or less and only 12 percent reported having volunteer instructors who had been teaching in their program for 10 years or more (see Table 1.12).

The turnover rate for full-time instructors was relatively low as 70 percent of programs reported that none of their full-time paid instructional staff left permanently during that program year. This was compared with 50 percent of programs that reported that none of their part-time staff had left permanently and 55 percent that reported a similar finding for volunteers.

Programs were also asked whether they had minimum educational requirements for instructional staff. Seventy-six percent of programs had such requirements for full-time instructors and 89 percent had minimum educational requirements for part-time instructors.<sup>19</sup> In both cases the most commonly reported educational requirement was a BA/BS degree followed by a K-12 certification. Among full-time staff, 54 percent of ABE instructors, 46 percent of ASE instructors, and 36 percent of ESL instructors were required to hold a BA/BS degree. K-12 certification was a requirement for 19 percent of full-time ABE instructors, 18 percent of full-time ASE instructors, and 12 percent of full-time ESL instructors (see Table 1.13). Among part-time staff members, a BA/BS degree was required for 66 percent of ABE instructors, 59 percent of ASE instructors, and 54 percent of ESL instructors (see Table 1.13). Minimum educational requirements were also reported for volunteer staff in 40 percent of programs. In this case, the most commonly reported educational requirement was a high school diploma or equivalent—a requirement for 30 percent of volunteer ABE instructors, 21 percent of volunteer ASE instructors and 22 percent of volunteer ESL instructors (see Table 1.13).<sup>20</sup>

In addition to minimum educational requirements, programs reported on specific credentials obtained by their instructors. The most commonly reported credential for full-time instructors was K-12 certification, obtained by 28 percent of full-time instructors in programs that offered ABE instruction. The second most common type was adult education certification, obtained by around 13 and 10 percent of ABE and ASE full-time instructors respectively. Special education certification was obtained by less than 5 percent of full-time instructors. Unique to programs that offered ESL instruction, 5 percent of full-time paid instructors obtained the TESOL

<sup>19</sup> Twenty-one percent of programs did not provide information about full-time instructors and 7 percent did not provide information about part-time instructors.

<sup>20</sup> Twenty-one percent of programs did not provide this information.

(Teachers of English to Speakers of Other Languages) certification. Table 1.14 also shows certification credentials for part-time and volunteer instructors. Programs reported that between 42 and 49 percent of the ASE and ABE part-time instructors and 36 percent of ESL instructors had obtained K-12 certification. In contrast, programs reported that between 33 percent of their part-time instructors in ESL classes and 41 percent of those in ABE classes had not obtained adult education certification. Interestingly, programs also reported that the TESOL certification was obtained by an average of 12 percent of part-time instructors in ESL classes—more than twice the average percentage of full-time staff. In general, the pattern of certification for volunteer staff was not as clear as that for full- and part-time instructors. This was, in part, an artifact of the way the question regarding staff certification was presented in the Program Survey. A “not applicable” option was not included in the question and thus, where responses were not provided, it was difficult to ascertain whether this was missing data or, indeed, not applicable for a particular program. By cross checking responses to the certification questions with other responses in the questionnaire it seemed that, of the three staff categories, volunteers were more likely to be “not applicable” and information about their certification was less likely to be reported than the certification of full-time and part-time instructors.

## Role and Uses of Assessment

Consistent with other segments of education, regular assessment of learner skills using valid instruments is a growing responsibility in all adult education programs. During the period of time addressed in this survey, the 2001-2002 program year, the National Reporting System (NRS)—the system through which all federally supported adult education programs report their annual program data—required that programs assess learners and report progress. However, the NRS did not mandate what particular tests should be used. This is in contrast to current practice where the NRS requires states to use one or more assessments that have been determined to be valid and reliable measures.

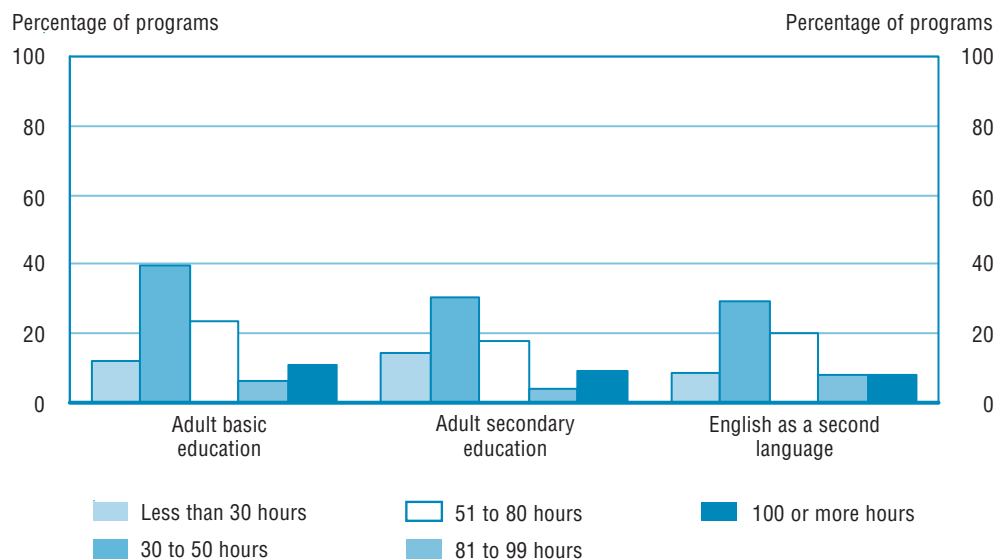
In the 2001-2002 program year, programs could choose from a variety of published assessments to meet both reporting requirements and their own local program objectives. The most commonly reported assessment for learners in ABE and ASE instructional programs was the Test of Adult Basic Education (TABE), with the Comprehensive Adult Student Assessment System (CASAS) a distant second. For learners in ESL programs, the Basic English Skills Test (BEST), a test specifically designed to assess the oral English and literacy skills of non-native speakers of English, was the most commonly reported measure. As assessment practice has evolved since the time of the AEPS survey, states are presently required to develop and implement policies that guide local programs to use state approved assessments and to administer pre- and post-tests in accordance with the test publishers’ guidelines.

In addition to reporting the initial score (i.e., score from the pretest measure) for enrolled learners, the NRS also requires programs to report post-test scores for learners in order to assess educational gain. It does not, however, mandate the number of instructional hours between the pre- and post-test. The Program Survey asked administrators to specify the average number of classroom instruction hours that learners received between pre- and post-testing. Most programs reported 30 to 50 hours of instruction between the administration of the pre- and post-test. This category was specified for 40 percent of ABE instructional programs and 30 percent

of ASE and ESL programs. The second most common response was 51 to 80 hours, which was reported for 24 percent of ABE, 18 percent of ASE, and 20 percent of ESL instructional programs (see Figure 1.12).

Figure 1.12

**Average number of hours of classroom instruction that learners receive between pre-testing and post-testing as reported to the NRS**



The NRS is not the only driving force behind the use of assessments in programs. Assessments are useful tools for placing learners in appropriate instructional levels, screening for learning and other disabilities, guiding instruction, and monitoring learners' progress. Standardized assessments were widely used among adult education programs, with 85 percent of programs reporting that these were used in some form. Of these programs, 86 percent used standardized assessments for placement, 84 percent to monitor learner improvement, 65 percent to adapt instruction, and 39 percent to screen learners. Programs reported that the most commonly used assessments for these purposes were: the TABE (for both ABE and ASE learners), Practice GED (for both ABE and ASE learners), CASAS (for ABE, ASE, and ESL learners), BEST (for ESL learners), and informal inventories and teacher-made tests (for ABE, ASE, and ESL learners) (see the AEPS database).

Assessments are also used to provide learners with feedback about their performance. Eighty-three percent of the programs reported requiring that learners receive some type of feedback about test results. Feedback was most often provided through an interview with the teacher or counselor, a practice followed by 83 percent of programs. Fifty-two percent of programs provided learners with their standardized test scores and 59 percent used other informal methods for providing feedback. The least used form of feedback was providing learners with a written report, utilized by only 22 percent of the programs (see the AEPS database).

Another important use of assessments in adult education programs involves the identification of special needs populations. One-third of the programs reported that they screened learners for learning disabilities and one-fifth reported screening for sensory and mental disabilities. To identify students with special needs, most

programs relied on self-reported information. Sixty-two percent of programs relied on self-reported information for identifying learners with learning disabilities and 76 percent of programs relied on this type of information to identify learners with sensory disabilities. Programs also reported that they had places to refer learners with disabilities, with 68 percent of the programs reporting that they felt such resources were available (see the AEPS database).

## Uses of Technology

Technology has become an integral part of our daily lives and of our educational systems. Consequently, it is an important component in both educational and professional training. Despite the low expenditures reported for instructional technology and technology support (see Table 1.4), it appears that the use of technology in adult education is commonplace. This includes the use of audiovisual equipment, the use of computers for running educational software, and use of the Internet for both information retrieval and distance education.

Overall, 80 percent of programs reported that adult learners used computers for instructional activities. Learners also used computers for Internet related activities (e.g., email and web searches) in 73 percent of programs, for administrative activities (e.g., letter/report writing) in 40 percent of programs and for assessment activities (e.g., testing, advising, and placement) in 50 percent of programs. Computers were also widely used by instructional and administrative staff, particularly for administrative and Internet related activities. On average, programs reported that about half of adult learners in ABE and ASE classes used computers during instruction, while the percentage was 33 percent for ESL learners (see the AEPS database).

Adult education programs also reported the use of other educational technologies, such as video series and instructional software targeted at specific adult learner populations as well as online learning. The following data summarize how these technologies were being used (see the AEPS database).

- Approximately two-thirds of programs reported using some video series such as “GED on TV,” “Workplace Essentials,” and “Crossroads Café.”
- At least three quarters of the programs reported using software designed for adult reading instruction, math instruction, and GED preparation.
- Slightly more than one quarter of the programs reported that learners took advantage of online learning opportunities at the program site (versus off-site, where learners would need independent access to a computer and Internet connection).
- Over one-tenth of the programs reported the use of broadcast/cable or satellite television at the program site.

The data show that the monitoring and administrative decisions related to the use of technology in adult programs are made at the local level. Purchases of equipment and software were primarily a decision for the program director (in 88 percent of the programs) in combination with instructors (in 74 percent of programs) and a technology specialist or coordinator (in 55 percent of the programs).

As technology is a constantly changing aspect of education, programs were also planning for the future. Forty-three percent of the programs reported having a formal technology plan, with over 80 percent of these programs including aspects related to the evaluation and purchase of hardware and software, integration of technology into instructional programs, staff training, and maintenance and upgrade of systems into their formal plans (see the AEPS database).<sup>21</sup> Programs reported that their current technology (i.e., hardware and software) was in general meeting the needs and priorities of instructional and administrative staff, more so than the needs of learners. While 22 percent of programs reported that their current technology did not meet the present needs of learners, only eight percent did so for their administrative staff. Despite this finding, at least three quarters of the programs recognized that their hardware and software would need upgrading in the next three years in order to continue meeting their needs. Financial resources, followed by the integration of technology into instruction were specified as the most important factors in the expansion of computer technology for over a third of the programs.

These data indicated that there is no institutional digital divide in adult education as it appears that adult education programs have the computers, audiovisual equipment, and Internet connectivity necessary to allow learners to benefit from these technologies. However, what was unclear from the data was the amount and quality of access that learners had, particularly to computers. Some important questions for future exploration include: Does each learner have access to a computer during every class session when necessary? Can learners access a computer for educational purposes during nonclass times? What level of support is available to learners who have questions about computer use?

The answers to such questions are important as there is little doubt that technology will continue to evolve and become more integrated with all aspects of our life. The Partnership for 21<sup>st</sup> Century Skills (2003) noted in a recent report that the integration of technology skills with traditional cognitive skills is of growing importance in a variety of contexts, including schools, workplaces, and communities. As this digital transformation continues, it is likely that the development of skills and knowledge associated with technology use will affect us in much the same way that print literacy affects the development of cognitive skills. Therefore, it is important that participants in adult education programs receive appropriate education in this area.

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<sup>21</sup> A formal technology plan is a written document outlining the plans for procurement and use of technology within a program.

## Geographic Distribution of Adult Education Programs

The data so far in this report have been examined from a national perspective. However, there is certainly variation across the country in terms of program structure and characteristics. The AEPS data were not collected in a way that allows reporting at the state level; however they can be aggregated at the regional level. The Office for Vocational and Adult Education specifies four geographic regions for adult education programs. Each region includes the states presented below.

1. The Eastern region includes the states of Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
2. The Southern region includes the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
3. The Midwestern region includes the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
4. The Western region includes the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Looking at the data by region is useful because it reveals some of the variability that exists across the country. However, it is critical to recognize that the data reported by region do not represent every state in a given region. In fact, for two regions in particular—the Southern and Western regions—one or two states drive the data because they represent the overwhelming majority of programs offered. For example, while the South as a whole included close to 40 percent of participants in adult education, approximately 37 percent of those participants were in programs in the state of Florida. In the West, 72 percent of participants from that region were in programs in the state of California. Thus, what is reported for the Western region is highly influenced by California—which includes about two-thirds of the adult education participants in the region and around 20 percent of participants in the country—and may not represent programs in states such as Montana or Wyoming which have less than one percent of the adult education participants in the region.

With this caveat in mind, this section will focus on describing the characteristics of adult education programs in each of the four regions using data from the Program Survey. Chapter 3 will describe the characteristics of the adult learners who participated in programs in each of the four regions, as reported in the Learner Survey.<sup>22</sup> For each geographical region, Table 1.16 shows the data for a series of variables related to adult education programs. As shown, the distributions of these adult program characteristics were not consistent across regions.

<sup>22</sup> See Table 2.17 and Table 2.18 for geographical data about the adult learners.

Across regions, differences were also found in terms of program providers. LEAs were the largest provider of adult education programs in the Southern (40 percent) and Midwestern (31 percent) regions. The Eastern region included almost half of the CBO programs whereas two thirds of community college programs were in the Southern and Western regions. Almost two-thirds of the adult education programs that were offered by correctional institutions were in the Eastern and Southern regions.

Regions also differed in terms of participation in different types of instructional programs. Approximately half the participants in adult education programs in the Eastern, Southern and Midwestern regions attended ABE classes, while only 23 percent did so in the Western region. In contrast, 62 percent of participants in the Western region attended ESL classes. This is most likely a direct consequence of the large percentage of immigration in this region—72 percent of adult education participants in the Western region were non-native and 53 percent had Spanish as their mother tongue (see Table 2.17 for data). As a result, the Western region also offered 23 percent of ABE and 15 percent of ASE classes in Spanish. In comparison, the percentages of classes offered in Spanish in the other three regions of the country ranged from 9 to 15 percent for ABE classes and 6 to 10 percent for ASE classes.

There were only small differences in the distribution of staff across regions. Around one-third of full-time staff members were in the Midwestern region, one-third of part-time staff members were in the Southern region, and almost two-thirds of the volunteer staff were divided between the Eastern and the Midwestern regions.

## A Profile of Adult Education Providers

The previous sections of this chapter identified a sector of education with high variability in program characteristics such as size, budget, expenditures, types of staff members, and the uses of assessments. Although these aspects were examined individually, this section will examine how they are related within each of the four types of providers, namely LEAs, CBOs, community colleges, and correctional institutions (see Table 1.17 and the AEPS database).

### Local Education Agencies (LEA)

LEAs represented the largest provider of adult education programs in the United States. They were responsible for offering 54 percent of the adult education programs and these programs were offered in 54 percent of the sites. LEAs were responsible for 58 percent of the overall budget of adult programs across the United States. These providers served 60 percent of all adult learners: 36 percent of learners that attended ABE classes; 20 percent of learners that attended ASE classes; and 44 percent of learners that attended ESL classes. Although these programs were offered in a variety of places, the two most commonly reported sites where services were provided by LEAs included public schools and adult learning centers.

LEA programs that offered ABE instruction were held for an average of 42 weeks a year, four weeks longer than ASE and eight weeks longer than ESL instruction. This was less intense than most of the programs offered by other provider types. An average of 54 percent of LEA programs were offered during the work day and 45 percent were available during the evening. During the program year 2001–2002, an average of 34 percent of learners in LEA programs completed a level and 22 percent proceeded to complete an educational level and advance one or more

levels. On the other hand, 30 percent remained within their current level, and 28 percent of learners left the program before completing a level.

Forty-two percent of adult education staff worked in LEA programs. Part-time employees represented over half of their staff, of which three quarters worked primarily as instructors. Administrative positions were occupied mostly by a combination of full- and part-time staff, while among instructors, 51 percent were full-time, 75 percent were part-time, and 27 percent were volunteer staff. Two-thirds of the volunteer staff members in LEA programs were involved as instructional aides or support staff. Seventy-six percent of programs reported minimum educational requirements for full-time staff and 94 percent of programs did so for part-time staff. Only 33 percent of LEA programs had minimum requirements for volunteers.

Standardized assessments were widely used in 84 percent of LEA programs, particularly to monitor learning improvement and placement. Seventy-two percent of programs required that feedback regarding assessment results be provided to learners, most commonly through an interview with the teacher or counselor. Standardized assessments were also a requirement for testing ESL students in 64 percent of the LEA programs.

## Community-Based Organizations (CBO)

CBOs represented the second largest provider of adult education programs when the number of programs is used as a reference. CBOs provided 24 percent of the programs offered, with these offered in 26 percent of all sites. However, despite this large number of programs, CBOs served only eight percent of all adult learners, with only correctional institutions serving a smaller population. Of the learners served by CBOs, 35 percent received ABE instruction, 11 percent received ASE, and 55 percent received ESL instruction. The most commonly reported sites for services provided by CBOs were adult learning centers and community centers. These programs accounted for 12 percent of the overall budget of adult education programs.

CBO programs that offered ABE instruction were held for an average of 44 weeks a year, which is similar to the intensity for other providers. On the other hand, ASE instruction was offered for 30 weeks which was more than 10 weeks shorter than for other providers. On average, 60 percent of CBO programs were offered during the work day and 38 percent on evenings. During the program year 2001–2002, on average, 28 percent of learners in these programs completed a level and only 16 percent completed a level and advanced one or more levels. In contrast, 40 percent remained within their current level and 32 percent of learners left the program before the completion of the level. While, on average, 75 percent of CBO programs were open enrollment—a percentage that is not as high as that reported for LEAs or programs provided by correctional institutions—63 percent of CBO programs reported that this method was used for all of their instructional services—a percentage that was higher than that reported for LEA and correctional institution programs.

Thirty-two percent of the staff in adult education programs worked in CBOs. The majority of staff members (83 percent) were volunteers, with three-quarters working as instructors. Fifty-one percent of CBO programs had minimum educational requirements for volunteer workers. The percentages of programs having minimum

requirements for full- and part-time staff were 69 and 77 percent respectively.

Standardized assessments were widely used in approximately 80 percent of the programs mainly to monitor learning improvement and make placement decisions. Seventy-one percent of programs reported that they provided feedback to learners, most commonly through an interview with the teacher or counselor. Standardized assessments were also required for testing ESL students in 54 percent of the CBO programs, a lower use than in LEAs and community colleges.

## Community Colleges

Community college programs comprised 17 percent of the programs offered, with these offered in 21 percent of all sites. Community colleges served 27 percent of adult learners, three times more than the percentage of learners served by CBOs, while they offered one-third fewer programs than CBOs. Of the learners attending adult education programs offered through community colleges, 42 percent were in ABE classes, 17 percent were in ASE classes, and 42 percent were in ESL classes. Over 85 percent of programs reported that they offered some services at community colleges while over 50 percent reported that they also offered services at public schools and adult correctional facilities.

Across providers, the programs offered by community colleges were among the most intense with ASE and ESL instruction at 43 and 39 weeks a year respectively and ABE instruction at 44 weeks a year. On average, 57 percent of these programs were offered during the work day and 41 percent in the evening. During the 2001–2002 program year, on average, 37 percent of learners in community college programs completed an educational level and 22 percent completed a level and advanced one or more levels. However, 34 percent remained within the current level and 23 percent of learners left the program before completing a level. Although open enrollment programs were most common, being used, on average, by 72 percent of programs, managed enrollment was also used, on average, by 28 percent of programs. Community colleges were responsible for 19 percent of the workforce-related adult education programs.

The majority of workers in community college programs were part-time staff, with 81 percent working as instructors. Of the 27 percent who were volunteers, 62 percent worked as instructional aides or support staff. Minimum educational requirements existed for volunteers in only 42 percent of the programs, while they existed in 86 percent of the programs for full-time staff and in 95 percent of the programs for part-time staff.

Although more widely used than in LEAs and CBOs, 91 percent of the community college programs reported that they used standardized assessments for the same reasons as the other providers: most commonly for monitoring learning improvement and making placement decisions. Seventy-seven percent of community college programs provided feedback to learners, most commonly through an interview with a teacher or counselor. Community colleges required the use of standardized testing for ESL students in three-quarters of their programs, more so than other types of providers.

## Correctional Institutions

Correctional institutions represented the smallest provider of adult education services. These programs possess some unique characteristics and address a population of learners under quite different circumstances, which in many cases puts them into a category of their own. Correctional institutions offered 2 percent of adult education programs, with these offered in less than 2 percent of all sites. Correctional institutions served 3 percent of adult learners, of which 51 percent were ABE learners, 18 percent were ASE learners, and 31 percent were ESL learners. Ninety-seven percent of these programs were offered in correctional institutions. These programs accounted for 9 percent of the overall budget of adult programs.

Correctional institutions offered programs that ran on average for 49, 43, and 32 weeks for the ABE, ASE, and ESL classes respectively. On average, around three-quarters of these programs offered services during the day with only 24 percent offering them on evenings. Some 35 percent of learners completed a level and 29 percent completed a level and advanced one or more levels. Open enrollment was widely used in an average of 85 percent of the programs. This method was used by all instructional services in 76 percent of programs—more than for any other provider type. Although the 35 percent success rate of completing a level was similar to the other providers, the attrition rates in these programs were lower than for the other providers at 17 percent. The unique characteristics of these learners and programs should be considered when interpreting these findings.

Correctional institutions accounted for only 3 percent of the staff in adult education programs. They were the only provider where the majority of employees were full-time paid staff, with three-quarters of them working as instructors. Volunteer staff worked mainly as instructional aides or support staff. Minimum educational requirements existed for over 80 percent of the full- and part-time staff, while they existed for only 31 percent of volunteer staff.

Similar to community colleges, 92 percent of the correctional institutions reported that they used standardized assessments for the same reasons as the other providers: particularly for monitoring learning improvement and making placement decisions. Seventy-seven percent of the programs provided feedback to learners, most commonly through an interview with the teacher or counselor. Correctional institutions required the use of standardized testing for ESL students for only a third of their learners—a much lower percentage than any other provider.

## Final Remarks

Adult education programs include a wide range of services designed to offer adults instruction in basic education, literacy and English language skills. As the AEPS data show, these services were offered under a range of conditions as programs varied widely in basic characteristics such as size, number of participants, and budget as well as in staff characteristics and teaching environments. While 54 percent of the programs were offered by LEAs, community colleges, CBOs and correctional institutions were also essential service providers within adult education.

It is reasonable to assume that a variety of factors, from demands in the workplace to social or personal needs, prompt adults to seek out and attend adult education programs. The three types of instruction—ABE, ASE and ESL—are designed to address this range of needs. The data showed that 40 percent of the adult learner population attended ABE classes to develop basic skills, while 20 percent

of adult learners attended ASE classes that offered GED or adult high school credentials. A special segment of the adult education population in the United States is composed of immigrants or adults who do not speak English at a level that allows them to fully participate in today's society. ESL classes served these learners and represented the remaining 40 percent of the adult learner population. The majority of programs also served other populations with special needs (e.g., those with learning, sensory or mental disabilities) or adults in need of temporary assistance (i.e., displaced and migrant families, homemakers, homeless adults and adults who are incarcerated).

Learning conditions and structural characteristics were found to vary among programs. Federal and state governments were the primary sources of funding but assistance from local governments, foundations and civic domains also contributed to programs' ability to offer services, with community organizations highly involved in various aspects of these services. Over 40 percent of programs reported that individual and classroom style instruction were widely offered, with computer-based and small group instruction also used in many programs.

Instructional staff represented the largest expenditure across providers. However, the characteristics of the workforce were not uniform, with programs depending a great deal on volunteers to provide instructional services, particularly one-on-one instruction. The majority of full- and part-time staff members worked for LEAs while the majority of volunteers worked in CBOs.

The Program Survey results as presented in Part I of this report are valuable for understanding characteristics of adult education programs in the United States. Part II of this report complements these findings with data from the Learner Survey which characterizes adult education learners. Together, these two parts of the AEPS offer a rich and comprehensive description of adult education programs and learners.





# PART II

## The Learner Survey

### A Description of the Learner Survey

#### Defining and Measuring Literacy and Numeracy

The concept of literacy as the application and use of written information has dominated recent educational studies including the International Adult Literacy Survey (IALS), the Adult Literacy and Life Skills Survey (ALL), the Programme for International Student Assessment (PISA), and the Progress in International Reading Literacy Study (PIRLS). For the purposes of a number of national and international surveys, including the National Adult Literacy Survey (NALS), IALS and ALL, literacy has been defined as “using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential” (OECD and Statistics Canada 2005, 280).

The AEPS instruments and methodology were based on the same theoretical framework that guided the development of the ALL instruments to measure the skills of adults in the domains of prose literacy, document literacy, and numeracy (OECD and Statistics Canada 2005).<sup>23</sup> Thus, the AEPS shares the definition of literacy used in the ALL, as well as the definitions of the three assessment domains, as provided below.

**Prose literacy** is defined as the knowledge and skills needed to understand and use information from texts that include editorials, news stories, brochures, poems, fictional works, and instruction manuals. For example, prose literacy tasks may require learners to find a piece of information in a newspaper article, interpret instructions from a warranty, infer a theme from a poem, or contrast views expressed in an editorial. Prose tasks focus on continuous texts that are formed of sentences organized into paragraphs. As a result, syntax and grammar play an important role in prose literacy.

<sup>23</sup> The full frameworks for prose literacy, document literacy, and numeracy are included in Appendix A in OECD and Statistics Canada (2005).

**Document literacy** is defined as the knowledge and skills required to locate and use information contained in non-continuous texts, or formats that include tables, charts, forms, and maps. For example, tasks to assess document literacy may require learners to locate a particular intersection on a street map, use a schedule to choose an appropriate bus, or enter information on an application form. Because documents are organized differently than prose materials, different strategies are required to enter and extract information from them.

**Numeracy** is defined as the knowledge and skills required to effectively manage and respond to the mathematical demands of diverse situations. These tasks cover a wide range of mathematical skills and include applying number sense, estimation skills, measurement and statistical literacy to real-life tasks.<sup>24</sup>

These three domains are represented through three proficiency scales, with each defined to range along a continuum from 0 to 500 points. Each score point represents “the point at which a person has an 80 percent chance of successfully completing tasks that are associated with a similar level of difficulty” (OECD and Statistics Canada 2005, 16). These common measures and scales make it possible to compare the skill levels of participants across adult education programs, a task that had not been feasible prior to the implementation of AEPS.

The Learner Survey assessed the skills of participants in the prose literacy, document literacy, and numeracy domains using items based on real-life materials that were taken from newspapers, brochures, magazines, and similar everyday sources. The items were presented in an open-response format; that is, rather than respond to multiple-choice questions, participants were asked to respond to questions by writing brief responses, completing portions of an order form, circling numbers in a table, and so forth. More detailed information about the design of the assessment instrument can be found in Appendix A4.

In addition to the assessment instruments, all participants in the Learner Survey completed an extensive background questionnaire. The questionnaire (a copy of which can be found in Appendix A3) was designed to collect demographic and background information and was organized into the following four sections.

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<sup>24</sup> The concept of numeracy examined in AEPS is broader than the concept of quantitative literacy previously assessed by IALS and defined as “the knowledge and skills needed to apply arithmetic operations either alone or sequentially, using numbers embedded in printed materials” (OECD and Statistics Canada 2005, 310).

- A *general and language background section* asked participants for general information, such as their date and place of birth as well as information about their language usage and fluency.
- An *educational background and experiences section* asked participants about their completed level of schooling, any reading and math difficulties that they encountered in school, adult education classes they had taken, any physical or learning disabilities, and self-assessed health and well-being.
- A *labor force participation and other activities section* asked participants about their employment status, employer, type of job, activities outside of work or school, types of materials read, and frequency and purposes of computer use.
- A *demographic information section* asked participants about their parents' or guardians' education, their gender, race/ethnicity, and income, and about the number of people in their household.

## Reporting Results

The three proficiency scales—prose literacy, document literacy, and numeracy—are divided into five skill levels along the 500-point scale that reflect the progression of skills and strategies required to successfully complete tasks at each level. These levels were determined, not as a result of any statistical properties of the scales, but rather based on research that identified points along the scales where processing demands shifted in identifiable ways (Kirsch 2001). The levels are in ascending order with Level 1 representing the least demanding tasks and Level 5 the most demanding tasks. Table II.1 characterizes the underlying information-processing skills associated with tasks in each level for the three proficiency scales.

Table II.1

Description of the prose literacy, document literacy, and numeracy levels

| Levels                          | Prose literacy   | Document literacy   | Numeracy  |
|---------------------------------|--|---|---|
| <b>Level 1<br/>(0 to 225)</b>   | Most of the tasks in this level require the respondent to read a relatively short text to locate a single piece of information which is identical to or synonymous with the information given in the question or directive. If plausible but incorrect information is present in the text, it tends not to be located near the correct information.  | Tasks in this level tend to require the respondent either to locate a piece of information based on a literal match or to enter information from personal knowledge onto a document. Little, if any, distracting information is present.  | Tasks in this level require the respondent to show an understanding of basic numerical ideas by completing simple tasks in concrete, familiar contexts where the mathematical content is explicit with little text. Tasks consist of simple, one-step operations such as counting, sorting dates, performing simple arithmetic operations or understanding common and simple percents such as 50 percent.   |
| <b>Level 2<br/>(226 to 275)</b> | Some tasks in this level require respondents to locate a single piece of information in the text; however, several distractors or plausible but incorrect pieces of information may be present, or low-level inferences may be required. Other tasks require the respondent to integrate two or more pieces of information or to compare and contrast easily identifiable information based on a criterion provided in the question or directive.  | Tasks in this level are more varied than those in Level 1. Some require the respondents to match a single piece of information; however, several distractors may be present, or the match may require low-level inferences. Tasks in this level may also ask the respondent to cycle through information in a document or to integrate information from various parts of a document.  | Tasks in this level are fairly simple and relate to identifying and understanding basic mathematical concepts embedded in a range of familiar contexts where the mathematical content is quite explicit and visual with few distractors. Tasks tend to include one-step or two-step processes and estimations involving whole numbers, benchmark percents and fractions, interpreting simple graphical or spatial representations, and performing simple measurements.  |
| <b>Level 3<br/>(276 to 325)</b> | Tasks in this level tend to require respondents to make literal or synonymous matches between the text and information given in the task, or to make matches that require low-level inferences. Other tasks ask respondents to integrate information from dense or lengthy text that contains no organizational aids such as headings. Respondents may also be asked to generate a response based on information that can be easily identified in the text. Distracting information is present, but is not located near the correct information. | Some tasks in this level require the respondent to integrate multiple pieces of information from one or more documents. Others ask respondents to cycle through rather complex tables or graphs which contain information that is irrelevant or inappropriate to the task.  | Tasks in this level require the respondent to demonstrate understanding of mathematical information represented in a range of different forms, such as in numbers, symbols, maps, graphs, texts, and drawings. Skills required involve number and spatial sense, knowledge of mathematical patterns and relationships and the ability to interpret proportions, data and statistics embedded in relatively simple texts where there may be distractors. Tasks commonly involve undertaking a number of processes to solve problems. |
| <b>Level 4<br/>(326 to 375)</b> | These tasks require respondents to perform multiple-feature matches and to integrate or synthesize information from complex or lengthy passages. More complex inferences are needed to perform successfully. Conditional information is frequently present in tasks at this level and must be taken into consideration by the respondent.  | Tasks in this level, like those at the previous levels, ask respondents to perform multiple-feature matches, cycle through documents, and integrate information; however, they require a greater degree of inferencing. Many of these tasks require respondents to provide numerous responses but do not designate how many responses are needed. Conditional information is also present in the document tasks at this level and must be taken into account by the respondent. | Tasks at this level require respondents to understand a broad range of mathematical information of a more abstract nature represented in diverse ways, including in texts of increasing complexity or in unfamiliar contexts. These tasks involve undertaking multiple steps to find solutions to problems and require more complex reasoning and interpretation skills, including comprehending and working with proportions and formulas or offering explanations for answers.  |
| <b>Level 5<br/>(376 to 500)</b> | Some tasks in this level require the respondent to search for information in dense text which contains a number of plausible distractors. Others ask respondents to make high-level inferences or use specialized background knowledge. Some tasks ask respondents to contrast complex information.  | Tasks in this level require the respondent to search through complex displays that contain multiple distractors, to make high-level text-based inferences, and to use specialized knowledge.  | Tasks in this level require respondents to understand complex representations and abstract and formal mathematical and statistical ideas, possibly embedded in complex texts. Respondents may have to integrate multiple types of mathematical information, draw inferences, or generate mathematical justification for answers.  |

Source: OECD and Statistics Canada. "Learning a Living: First Results of the Adult Literacy and Life Skills Survey." Paris, France and Ottawa, Ontario, Canada: OECD and Statistics Canada, 2005

## Conducting the Survey

The Learner Survey was based on a nationally representative sample of participants enrolled in federally funded adult education programs. Sampling procedures ensured that these results represented adult learners nationwide, giving policy makers, practitioners, and researchers a powerful set of data related to the skill levels of participants in adult education.

Data collection for the survey took place from March through June of 2003. More than 200 trained exercise administrators visited adult education classes to select and interview participants. Over 6,100 adult learners enrolled in 1,200 programs throughout the country participated in the survey. Participants ranged in age from 16 to 65 and were paid \$35 upon completion of the assessment. The testing population varied in race and ethnicity and included both native and non-native learners, individuals with varying levels of English proficiency, and those with a range of educational backgrounds from no schooling to beyond high school. The demographic characteristics of the adults who participated in the Learner Survey are presented in Table II.2, with additional information presented in Appendix A4.

**Table II.2**

### Demographic Characteristics of the AEPS Population

|                              | AEPS Population     |                                   |
|------------------------------|---------------------|-----------------------------------|
|                              | National population | Percentage of national population |
| <b>Total</b>                 | <b>2,429,531</b>    | <b>100</b>                        |
| <b>Sex</b>                   |                     |                                   |
| Male                         | 1,137,353           | 47                                |
| Female                       | 1,291,601           | 53                                |
| <b>Age</b>                   |                     |                                   |
| 16 to 25                     | 920,111             | 38                                |
| 26 to 35                     | 606,337             | 25                                |
| 36 to 45                     | 470,055             | 19                                |
| 46 to 55                     | 270,081             | 11                                |
| 56 to 65                     | 104,955             | 4                                 |
| >65                          | 54,027              | 2                                 |
| <b>Born in US</b>            |                     |                                   |
| Yes                          | 1,389,754           | 57                                |
| No                           | 1,036,756           | 43                                |
| <b>Ethnicity</b>             |                     |                                   |
| Hispanic                     | 852,474             | 35                                |
| Non-Hispanic                 | 1,577,057           | 65                                |
| <b>Program</b>               |                     |                                   |
| Adult Basic Education        | 1,033,454           | 42                                |
| Adult Secondary Education    | 505,290             | 21                                |
| English as a Second Language | 890,336             | 37                                |

## Organization of Part II

The results of the Learner Survey are presented in Chapter 2 of this report. The literacy and numeracy skills of adult education participants are discussed and performance among learners of different genders, ages, and backgrounds are compared. In addition, profiles of learners in different types of instructional programs, as well as profiles of learners at different points along the literacy and numeracy scales, are presented.

To further understand important characteristics of the adult learner population, Chapter 3 compares results from the Learner Survey with results from the ALL for the U.S. sample. As mentioned previously, ALL was an international household survey implemented in seven countries that examined the characteristics and levels of literacy and numeracy of the adult population. Because the AEPS uses instruments and methodology that emerged from the ALL, it is possible to compare both the performance and background characteristics of the adult learner population with the general adult population in the United States.

Finally, the AEPS included an additional component to examine levels of literacy for English- and Spanish-speaking Hispanic populations. A representative sample of the Hispanic population enrolled in adult programs was drawn and these learners were randomly assigned to English or Spanish versions of the AEPS instruments. This comparison provides a richer description of the Hispanic population enrolled in adult education programs by examining the influence of language and analyzing whether the language of the assessment interfered with their performance on literacy tasks. Results comparing the English-speaking versus the Spanish-speaking populations are presented in Chapter 4. A question emerged about how well the Hispanic population of adult learners in the United States compares with adults from a Spanish speaking country or region. To examine this issue, a separate section of Chapter 4 also compares the results for adult learners in the United States with the general population of adults from Nuevo Leon, Mexico, which participated in ALL.

## Learner Survey Highlights

The Learner Survey captured a wealth of information about the background characteristics and literacy and numeracy skills of learners in adult education programs. The findings showed that differences in some characteristics did not influence performance. For example, the performance of male and female adult learners was similar across the literacy and numeracy measures. However, the survey results did show a relationship between performance and many of the other characteristics studied. The AEPS population was younger than the general population, with about half being between the ages of 24 and 44. The data showed a relationship between age and performance, with younger participants showing higher performance levels than older adults. The data also showed that a large percentage of program participants were non-native. In fact, participants in adult education programs were almost four times as likely to be non-natives as were adults in the general population. Across the prose literacy, document literacy and numeracy scales, being non-native was found to be highly related to low performance rates.

When compared with adults in the general population, the performance of those enrolled in adult education programs was generally lower for prose literacy, document literacy, and numeracy. Across the three scales, when compared with the adult education population, between two and four times as many adults in the general population performed at or above Level 3, the range at which individuals are most likely to have the skills they need to function successfully in society. Some 15 percent of adult learners scored at or above Level 3 on prose and document literacy and about 10 percent scored in those levels on numeracy. Significantly, the proportion of adult education participants in Level 1, the lowest level on the proficiency scales, was twice that of the general population.

The final findings of the study relate to performance and testing language. This was of particular interest since the largest percentages of participants in adult education programs were in English as a Second Language (ESL) classes. Almost half of all participants in adult education programs reported that English was not their mother tongue, a figure that was close to four times higher than that of the general adult population. One assumption that might be made when testing non-native learners is that assessing them in a language other than their native tongue would put them at a significant disadvantage and not allow them to fully demonstrate their literacy skills. The AEPS addressed this issue by randomly assigning a group of Hispanic learners to either an English or Spanish version of the prose and document portions of the Learner Survey. As expected, the results showed that Spanish-speaking Hispanic learners demonstrated somewhat higher average literacy skills in Spanish than in English. However, it was also clear that allowing for language differences did not eradicate differences in literacy performance. The skill levels of learners who were tested in Spanish were similar to the levels of literacy shown by English speaking adults enrolled in adult education programs and those skills levels, in general, fell well below those of the general adult population. The following chapters examine these and other characteristics related to adult learners.





## Chapter 2

# Profiling Literacy and Numeracy Skills among Adult Learners

### Introduction and Highlights

Adult education activities are broad and include “basic skills training, apprenticeships, work-related courses, personal interest courses, ESL classes, and part-time college or university degree programs” (U.S. Department of Education, and National Center for Education Statistics 2006, 38). Within this broad context of services, the U.S. Department of Education reported that 46 percent of adults 16 or older participated in some learning activity in 2001.<sup>25</sup> We can expect this percentage to increase over time. As technologies continue to evolve and long-term employment declines, life-long learning will become increasingly important not only to gain access to and succeed in the workplace but also for full participation in society. Thus, adults represent a significant proportion of learners—a group with unique characteristics and broad needs that must be addressed through a variety of adult education programs.

The Learner Survey offered the first opportunity to examine the literacy and numeracy skills of a nationally representative sample of adult learners who were enrolled in federally sponsored adult education programs in the United States. As defined in the Adult Education and Family Literacy Act (AEFLA), individuals are eligible for adult education services if they are over the age of 16 and neither enrolled nor required to be enrolled in secondary school.<sup>26</sup> In addition they must also “lack sufficient mastery of basic educational skills to enable the individuals to function effectively in society;” lack a high school diploma or equivalent; or be “...unable to speak, read, or write the English language” (Lasater and Elliott 2005, 1-2).

<sup>25</sup> Full-time participation for all or part of the year in a college or university degree program or a vocational or technical diploma program was not counted as an adult education activity. (U.S. Department of Education and National Center for Education Statistics 2006, Table 11-1).

<sup>26</sup> The Adult Education and Family Literacy Act, originally established as Adult Education Act of 1966, governs adult education programs in the United States.

This chapter presents a comparative description of the literacy and numeracy skills of adult learners. In addition, it also considers the types of instruction offered by the adult education programs these learners attend, which includes Adult Basic Education (ABE), Adult Secondary Education (ASE), and English as a Second Language (ESL). In presenting these results, the chapter is organized into the following four sections.

1. The *literacy and numeracy skills of adult learners* section focuses on overall performance, distributions, and skill levels on the prose literacy, document literacy, and numeracy scales.
2. The *background characteristics of adult learners* section associates performance on the literacy and numeracy scales with background and demographic characteristics including gender; age; race/ethnicity, immigration status and language; and educational attainment and place of birth.
3. The third section, *complex characteristics related to the adult learner population and skill levels*, examines other characteristics of this population, namely their reading engagement, wealth, and health, and the associations among these characteristics and performance.
4. The final section of the report, *geographic distribution of adult program participants*, examines and compares the distribution and performance of adult education learners across four geographical regions within the United States.

## Key Findings

### Literacy and Numeracy Skills

- The data confirmed that adults enrolled in adult education programs represent a special segment of the adult population, with unique characteristics. They attended adult education programs for various reasons but most commonly to acquire a secondary level certification or improve English language skills.
- The gaps in performance between learners in the top and bottom percentiles were large and equivalent to 2.6 standard deviations. These may be related to diversity in demographics, educational paths, and professional experiences of adult learners. These gaps in performance were not consistent across types of programs.
- Performance of adult learners was consistently lower in numeracy when compared to their performance in prose and document literacy: less than 10 percent of adult learners performed at Level 3 or above in numeracy compared to 16 and 18 percent of learners in prose and document literacy.

### Background Characteristics and Skills

- Unlike the in-school population in which girls outperform boys on measures of reading and literacy, performance of adult learners was similar across gender. The AEPS data showed no gender differences in either average performance or percentages of learners across skill levels.
- The highest average scores were achieved by learners receiving ASE instruction, followed by learners in ABE and finally learners in ESL classes.

- Forty-six percent of adult learners were between the ages of 25 and 44. An additional 35 percent were between the ages of 16 and 24. When examined by itself, a negative relationship existed between performance and age; that is, younger age groups performed better. This finding was also observed in the general adult population and probably reflects a combination of factors including education, experience, and aging.
- Forty-four percent of participants in adult education programs reported that English was not their mother tongue. However, English was still used by 13 percent of these adult learners at home and by 44 percent at work.
- Non-native adults represented 43 percent of the population of adult learners. Demographic characteristics including language, race, ethnicity, and educational attainment were clearly associated with the place of birth of adult learners.
- Overall, 34 percent of AEPS participants reported completing no education in the United States. However, among non-native learners within this group, many reported that they had completed some level of education outside the United States.

### Engagement, Income, and Health Status

- Participants in adult education programs differed in levels of reading engagement: 23 percent were highly engaged readers, 28 percent were moderately engaged readers, 27 percent were low engaged readers, and 23 percent were among the least engaged readers. A positive relationship existed between levels of reading engagement and performance in literacy and numeracy. This relationship was also found when demographic and social variables were considered, particularly for educational attainment.
- Source of income was used to identify two classes of adult learners. One group, representing 85 percent of adult learners, was most likely to have income from wages or salaries. The second group, representing 15 percent of participants in adult education programs, had limited income, mostly from government sources such as social security benefits and SSI payments. A positive relationship existed between wealth and performance on the three scales. This relationship remained when demographic variables such as place of birth, ethnicity, and educational attainment were considered.
- The high variability among adult learners on demographic and social background variables also resulted in differences in health status, identified by four classes.

### Geographic Distribution

- The profile of adult learners differed by geographic regions. The Eastern region was the smallest and represented only 14 percent of adult learners, with a high concentration of Black adults. The Southern region represented the largest group with 39 percent of the participants in adult education programs. The Midwestern region represented 19 percent of adult learners. The remaining 28 percent of adult learners were in the Western region, the region with the highest concentration of non-native learners who did not have English as their mother tongue.

## Literacy and Numeracy Skills of Adult Learners

Literacy and numeracy skills are a necessity in modern societies. Data from national and international surveys reveal substantial differences by literacy and numeracy levels in labor force participation rates, weekly and annual earnings, poverty rates and access to lifelong learning opportunities sponsored by employers (see Kirsch et al. 1993; Sum, Kirsch, and Yamamoto 2004b; OECD and Statistics Canada 2005). Three aspects of literacy were examined in the AEPS: prose literacy, document literacy, and numeracy.

The adult population represents a diverse group of learners. This diversity may be the result of factors that include differences in educational paths, professional experiences, life encounters, and social and economic contexts. Although instruction should always target learners' individual needs, these needs are clearly central in adult education programs as adult learners are faced with the task of immediately applying newly acquired skills in their personal and professional lives.

Adult education programs offer three different types of instruction that are intended to address the diversity of skills and characteristics of the adult learner population and to increase program efficiency. The first, ABE, offers instruction targeting learners with skills below the secondary level. The second, ASE, offers instruction targeting learners with educational attainment around secondary level. The third, ESL, offers instruction targeting non-native English speakers who wish to improve their English literacy skills, focusing on language aspects that may not be needed by those with English as their mother tongue.<sup>27</sup> In the program year 2001–2002, ABE and ESL classes were attended by approximately 40 percent of the participants in adult education programs and ASE classes were attended by the remaining 20 percent of participants. When appropriate, this report considers “type of instruction” to help further explain or illustrate findings reported in this chapter.

### A Profile of Skills

One way to provide an overview of how adults in the Learner Survey performed on the three proficiency scales is to look at multiple comparisons of proficiency, as shown in Figure 2.1. For each scale, which ranges from 0 to 500 points, the mean scores of adult learners are shown, both overall and by the three types of instruction: ABE, ASE, and ESL. The arrows on the charts represent the direction of differences when performance between a pair can be considered statistically significantly higher (upper arrow) or lower (lower arrow). Differences that are not statistically significant are represented with a dot. In all three domains, learners in ASE classes performed significantly higher, on average, than learners in ABE and ESL classes.<sup>28</sup> These findings are not surprising as ASE learners are expected to have already completed basic educational requirements and are enrolled in programs to help them obtain a secondary education certification. Similar results were found for ABE classes when compared with ESL classes; that is, adults in ABE classes scored significantly higher, on average, on each of the three scales than adults participating in ESL classes.

<sup>27</sup> For more information about these types of instruction, see Chapter 1.

<sup>28</sup> Significance level of 5 percent.

Figure 2.1

**Multiple comparisons of mean proficiency on the prose literacy, document literacy, and numeracy scales by type of instruction**

| <b>Prose literacy</b>    |           | ABE          | ASE          | ESL          | Overall      |
|--------------------------|-----------|--------------|--------------|--------------|--------------|
| Mean                     | S.E.      | 240<br>(3.5) | 255<br>(3.3) | 175<br>(3.1) | 219<br>(1.9) |
| ABE                      | 240 (3.5) |              | ↓            | ↑            | ↑            |
| ASE                      | 255 (3.3) | ↑            |              | ↑            | ↑            |
| ESL                      | 175 (3.1) | ↓            | ↓            |              | ↓            |
| Overall                  | 219 (1.9) | ↓            | ↓            | ↑            |              |
| <b>Document literacy</b> |           | ABE          | ASE          | ESL          | Overall      |
| Mean                     | S.E.      | 244<br>(3.7) | 258<br>(3.0) | 192<br>(2.5) | 228<br>(1.9) |
| ABE                      | 244 (3.7) |              | ↓            | ↑            | ↑            |
| ASE                      | 258 (3.0) | ↑            |              | ↑            | ↑            |
| ESL                      | 192 (2.5) | ↓            | ↓            |              | ↓            |
| Overall                  | 228 (1.9) | ↓            | ↓            | ↑            |              |
| <b>Numeracy</b>          |           | ABE          | ASE          | ESL          | Overall      |
| Mean                     | S.E.      | 210<br>(4.4) | 229<br>(3.3) | 182<br>(2.7) | 203<br>(2.1) |
| ABE                      | 210 (4.4) |              | ↓            | ↑            | •            |
| ASE                      | 229 (3.3) | ↑            |              | ↑            | ↑            |
| ESL                      | 182 (2.7) | ↓            | ↓            |              | ↓            |
| Overall                  | 203 (2.1) | •            | ↓            | ↑            |              |

|   |  |
|---|--|
| ↑ | Mean proficiency statistically significant higher than in comparison group |
| • | No significant difference from comparison group                            |
| ↓ | Mean proficiency statistically significant lower than in comparison group  |

ABE = Adult basic education

ASE = Adult secondary education

ESL = English as a second language

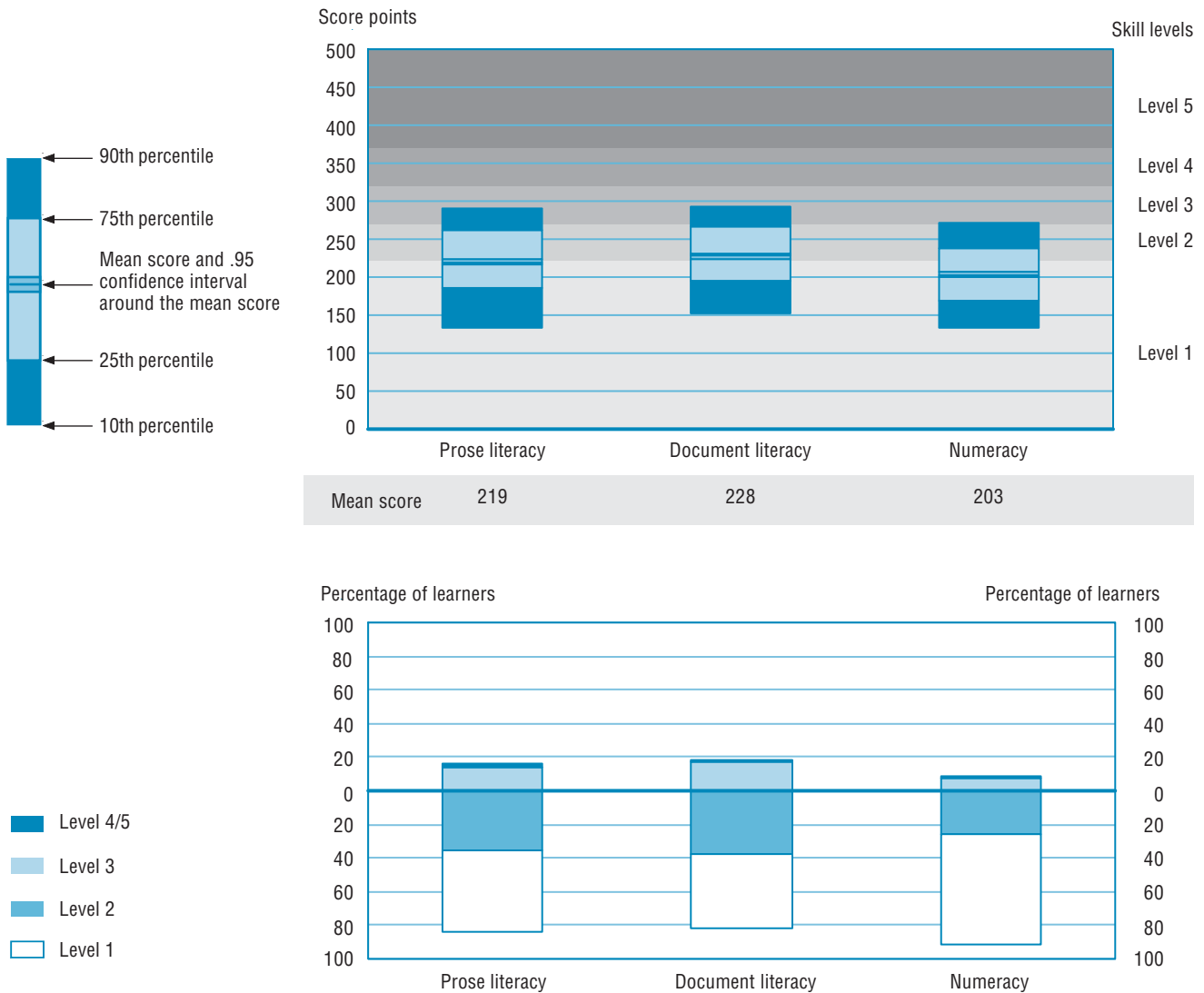
Although overall performance is meaningful, it is also important to consider the distribution of scores for the population, as shown in the first panel of Figure 2.2. This analysis considers the performance difference between the highest and lowest groups of performers in each distribution from a relative perspective. The size of this difference is known to represent the degree of equality (or inequality) of educational outcomes—large differences are interpreted as high inequality as there tend to be wider gaps between the high and low performers. The bars in this figure represent the ranges of scores between the 10th and 90th percentile for each of the three scales.<sup>29</sup> The narrow boxes in the middle of the bars represent the average scores and their confidence interval. It is possible to observe a wide variation in proficiency

<sup>29</sup> See Appendix A1 for a definition of percentile.

between learners in the top and bottom percentiles (see also Table 2.1). The gaps between the 90th and 10th percentiles were 156, 139, and 138 points on the prose literacy, document literacy, and numeracy scales, respectively, gaps that were equivalent to 2.6 standard deviations.

**Figure 2.2**

**Skills on the prose literacy, document literacy and numeracy scales**



The top panel of Figure 2.2 also illustrates proficiency by skill level, with each of the five skill levels shown on the background. On the 500-point scale, Level 1 ranges from 0 to 225 points, Level 2 from 226 to 275 points, Level 3 from 276 to 325 points, Level 4 from 326 to 375 points, and Level 5 from 376 to 500 points. The average scores of 219 and 203 found on the prose literacy and numeracy scales represented average proficiencies at Level 1. The average score of 228 points on the document literacy scale represented average proficiencies at the bottom end of Level 2.

These levels facilitate interpretation and allow inferences to be drawn about the percentage of learners with proficiency at a specific skill level. This approach is helpful for comparing relative performance across scales, as each level does not represent the same set of knowledge and skills across scales. The second panel of Figure 2.2 shows the distribution of adult learners by skill level for each scale (see also Table 2.2). The approach of examining the distribution of scores by skill levels is different from the distribution of scores presented by percentiles as the latter analysis uses an absolute benchmark for comparison. The length of the segments in the second panel of Figure 2.2 shows the percentage of learners proficient at each level. The bars are anchored between Level 2 and Level 3 to represent the baseline for minimum skills and facilitate inferences about low versus high performance. Thus, the percentages of learners performing at the lowest two skill levels—Levels 1 and 2—are shown below the horizontal line to represent learners who have not mastered minimum skills. On the other hand, the percentages of learners performing at higher levels of literacy—Levels 3 through 5—are shown above the horizontal line. Levels 4 and 5 have been grouped into a single category because of the small number of learners in each of these levels.

A brief characterization of the types of prose literacy, document literacy, and numeracy tasks in each of the five levels is provided below, along with data about the proportion of learners within the adult education population performing at each level. For a more detailed description of representative prose, document and numeracy tasks in each level, refer to Table II.1, presented in the introduction to Part II of this report. Other characteristics of learners at each level, based on responses in the background questionnaire—including gender, race/ethnicity, place of birth, mother tongue, educational history, employment status, reasons for participating in adult education and the type of program in which they are enrolled—are shown in Table 2.20.

Level 1 is the most basic level of literacy. Learners performing at this level are capable of simple tasks such as reading short texts to locate a single piece of information in prose literacy; finding one piece of information that matches previous knowledge in document literacy; and, performing a single, one step operation in familiar contexts in numeracy. Approximately half of the adult learners in prose literacy, 44 percent of the adult learners in document literacy and two-thirds of adult learners in numeracy performed at this level.

Learners performing at Level 2 are able to perform simple tasks; however, tasks at this level increase somewhat in complexity. In prose and document literacy learners may be required to locate information in a text or document that has multiple distractors. Tasks may also involve comparing, contrasting, and integrating information. In numeracy, tasks are still simple, but may now be one- or two-step processes and estimation may be among the requirements. About one-third of adult learners performed at Level 2 in prose and document literacy and a quarter of learners performed at this level in numeracy.

Experts have identified Level 3 as “a suitable minimum level for coping with the increasing demands of the emerging knowledge society and information economy” (OECD and Statistics Canada, 2005, 31) and “as a minimum standard for success in today’s labor markets” (Sum, Kirsch, and Taggart 2002, 11). Therefore, adult learners who are performing at Levels 1 and 2 are likely to lack the full range of skills needed to compete and succeed in today’s society. These learners are more at risk for lower paying jobs and less likely to be offered opportunities for advancement or to receive further educational training from employers. When performance at Levels 1 and 2

was combined, the data showed that many adult learners performed at these lowest two levels of proficiency: 84 percent of adult learners in prose literacy, 82 percent in document literacy, and 92 percent in numeracy.

Learners performing at Level 3 are able to perform low-level inferences, integrate multiple pieces of information, and demonstrate an understanding of mathematical information that is presented in various ways. Overall, the percentage of learners demonstrating skills at Level 3 ranged from 8 percent on the numeracy scale to 14 percent on the prose literacy and 17 percent on the document literacy scale.

High proficiency was demonstrated by those learners at Levels 4 and 5, who were able to perform the most sophisticated tasks such as making complex and high level inferences, demonstrating the ability to compare and contrast information, the ability to deal with unfamiliar contexts requiring multiple steps, and having the capacity to represent mathematical and statistical ideas. As would be expected, given the educational needs of this population, the percentages of adult learners performing at Levels 4 and 5 were low. Overall, less than one percent of adult learners demonstrated these proficiencies on the numeracy scale, and less than two percent demonstrated them on the prose and document literacy scales.

In summary, the examination of results using Level 3 as the *minimum level of skills required to function successfully in society* showed that over three-quarters of the adult learners were below that threshold, illustrating their need for the educational services provided by adult education programs. In contrast, it is interesting to note that some 16 to 18 percent of adult learners performed at Levels 3 and higher on the prose and document literacy scales. Collecting additional information about this segment of the adult education population might provide useful information about their particular purposes for attending adult education programs and their learning goals.

## The Distribution of Skills across Instructional Programs

The three types of instructional programs offered in adult education—ABE, ASE and ESL—address the various learning and skill needs of the learner populations they serve. The characteristics of learners in each type of instruction, using data collected in the background questionnaire, are shown in Table 2.19.

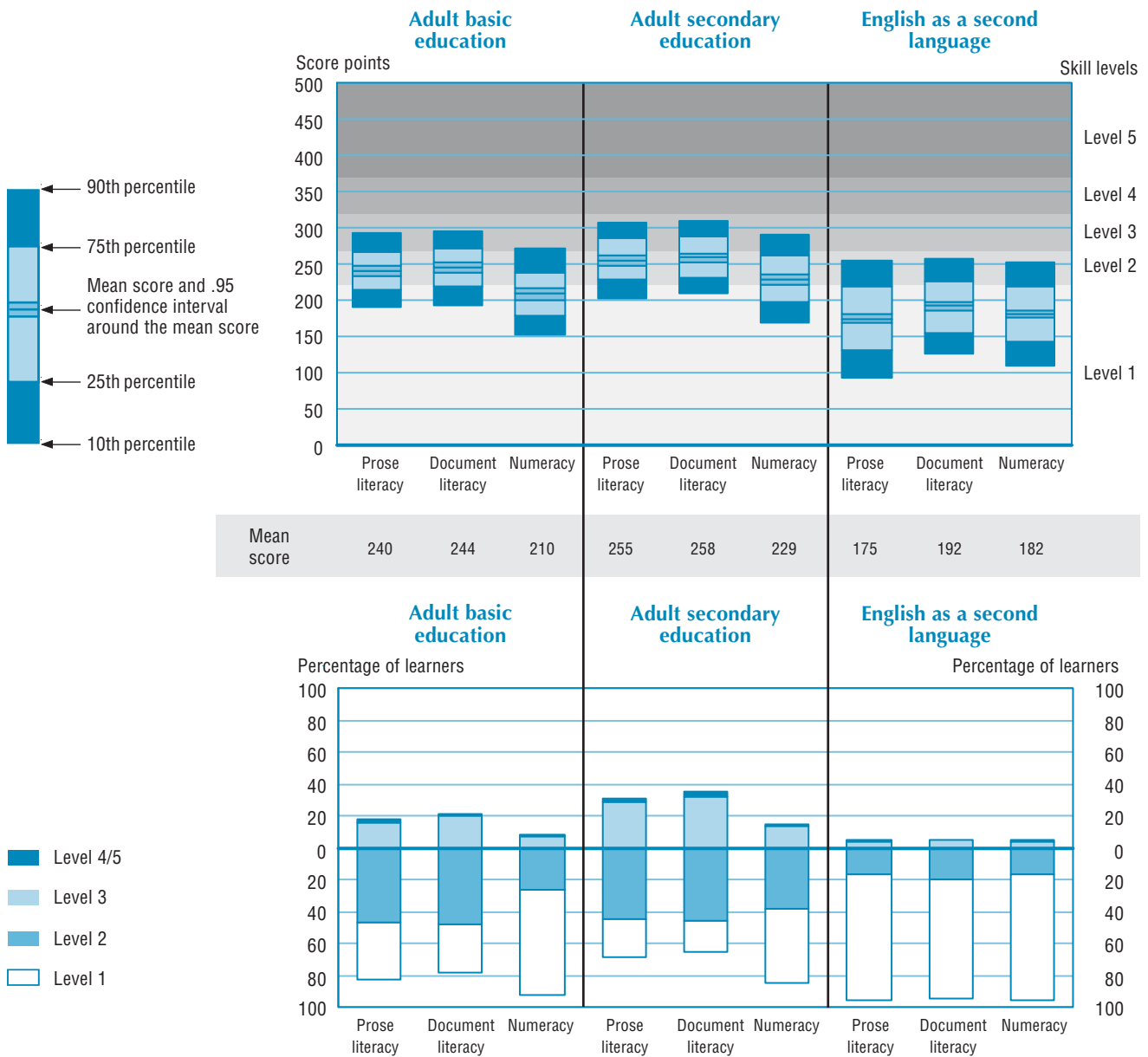
Figure 2.3 presents results for the three types of instruction in a format that parallels Figure 2.2. The top panel shows the distribution of scores from a relative perspective for each type of instruction—the gap between the 10th and 90th percentiles. A priori expectation is that by grouping adults who share common educational and/or language characteristics and needs, the group will become more homogeneous than treating the diverse population of adult learners as a single group. This assumption held true for ABE and ASE learners. That is, the gaps between the top and the bottom 10 percent of learners decreased for ABE and ASE when compared with the overall gaps by 53 and 51 points in prose literacy, 39 and 38 points in document literacy, and 19 and 16 points in numeracy. The exception occurred for ESL where almost no differences in the performance gaps between top and bottom performers were found. As 99 percent of ESL learners were non-native, these learners are likely to vary across a number of factors that include country of origin, the time elapsed from when they first immigrated, their social and educational experiences prior and post immigration, and their personal reasons and needs for enrolling in these programs.

Adults in ABE and ASE showed the highest overall levels of performance on the prose and document literacy scales with average performance at Level 2. In ASE, the top 25 percent of learners in prose and document literacy and the top 10 percent of learners in numeracy performed at Level 3. In contrast, the top 10 percent of ESL learners performed only at Level 2 in all scales (see also Table 2.1).

The bottom panel of Figure 2.3 shows the distribution of adult learners by skill levels across types of instruction. Once again, a horizontal line separates learners who performed at Levels 3 and higher from those who performed at Levels 1 and 2. The relative difficulty across domains can be clearly seen in this figure. The percentages of learners performing above the horizontal axis represent those who have achieved higher levels of skill. These percentages were much lower for the ESL population when compared with ABE and ASE learners. Consistently, ASE learners performed at the highest levels—some 31 percent of ASE learners on prose literacy, 35 percent on document literacy, and 15 percent on numeracy performed at least at skill Level 3 (see also Table 2.2).

Figure 2.3

Skills on the prose literacy, document literacy and numeracy scales by type of instruction



## Background Characteristics of Adult Learners

The literacy and numeracy skills of adult learners are not isolated characteristics and therefore much can be learned when these skills are examined in combination with the background and demographic characteristics of this population. This broader context takes into account educational, economic, and social factors that may influence literacy and numeracy skills. This section examines the overall findings about performance in relation to the learners' background information including: gender, age and educational attainment as well as birthplace, race, and ethnicity.

## Gender and Skills

Narrowing the educational and achievement gaps traditionally found between males and females has been a persistent issue in political and educational agendas. Females have consistently been found to outperform males in large scale assessments of elementary and high school age students. For example, females performed better than males in 4th grade on the Progress in International Reading Literacy Study (Mullis et al. 2003), in 4th, 8th and 12th grades on the National Assessment of Educational Progress (Freeman 2004), and at age 15 on the Programme for International Student Assessment (OECD 2004). At the postsecondary level, the participation of females has also increased over the past decades. Women have earned more bachelor's degree than men since 1980-81 and "in 2003-04, women earned 57 percent of all bachelor's degrees" (U.S. Department of Education and NCES 2006, 67). In addition, there has also been an increase in the representation of women in graduate programs. In 1976 female students represented 46 percent of the total graduate enrollment while this was 59 percent in 2003-04 (U.S. Department of Education and NCES 2006, Table 10-1).

The AEPS population of adult learners in the United States was composed of 47 percent male and 53 percent female learners. They differed, however, in their demographic characteristics: 11 percent more males were between the ages of 16 to 24; 16 percent more males reported themselves as employed or self-employed; 14 percent more males reported having repeated a grade (a difference of 14 and 11 percent for native and non-native learners respectively); and 32 percent more females reported themselves as homemakers (see the AEPS database).

Overall performance differences between male and female learners were small and the percentage of learners performing at each skill level did not differ by gender in any of the three domains (see Table 2.3 and Table 2.4). However, large differences were found between high and low performers (point difference between the 90th and the 10th percentiles), as shown in Figure 2.4. In numeracy, the performance gap was 137 points for both males and females. The gap in document literacy was 8 points wider for female learners (143 points for females and 135 points for males) and in prose literacy it was 15 points wider for female learners (163 to 147 points). These differences reflect a larger variability of performance for female learners.

The overall finding of no gender differences was generally true when performance was examined by types of instruction (see Tables 2.3 and 2.4). Across types of instruction, small differences within levels were found in the lower levels of performance. For example, 5 percent more males in ABE performed at Level 1 in prose literacy. On the other hand, 5 percent more females in ASE performed at Level 1 in document literacy while 5 percent more males performed at Level 2. These small differences do not change the major finding that, unlike the performance typically seen in assessments of younger learners, among adults participating in adult education programs male and female learners performed similarly across the three scales.

Figure 2.4

Skills on the prose literacy, document literacy and numeracy scales, by gender



### Age and Skills

Adult education programs target learners ages 16 or older, resulting in wide variability in the age distribution. This distribution is, in turn, likely to reflect variability in terms of how and when learners have acquired, maintained and updated their knowledge and skills and, as result, impacts performance on the measures included in the Learner Survey.

Learners were asked to supply their date of birth in the background questionnaire. Using that data, literacy and numeracy skills were examined for adults in five age groups. These included adults who were ages:

- 16 to 18 (4 percent of the population of adult learners);
- 19 to 24 (30 percent of this population);
- 25 to 44 (the largest group in the survey, representing 46 percent of this population);
- 45 to 59 (16 percent of this population); and
- 60 and older (2 percent of this population).

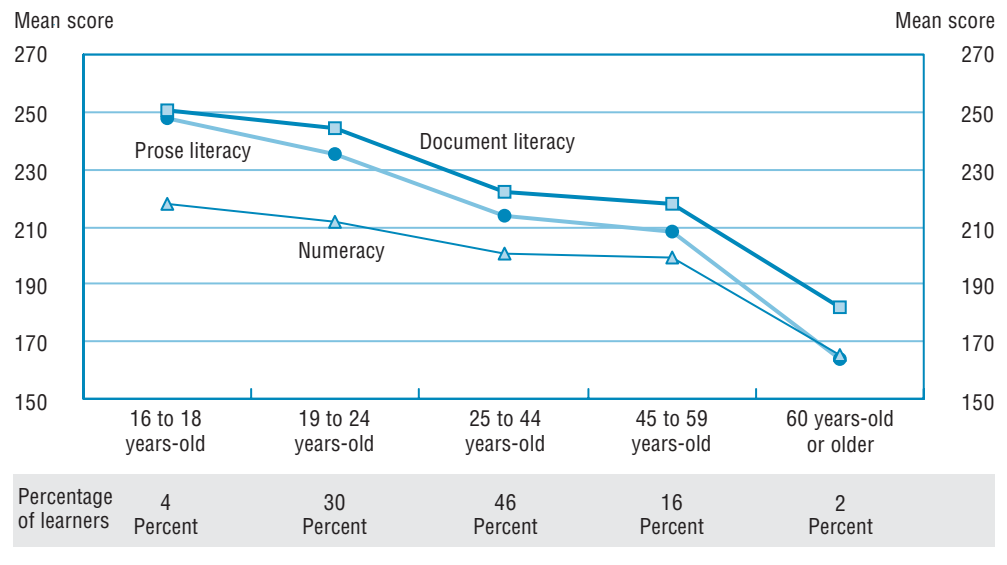
A negative relationship between age and performance is known to exist for the overall adult population. This is explained by several theories, one being that fluid intelligence tends to decrease with the aging process (Douchemane and Fontaine 2003). Research suggests that this decrease in fluid intelligence is related to a decrease in the ability to correctly perform complex tasks which are defined as tasks that require the ability to “deal with a multitude of elements and the relationship among these elements” (Douchemane and Fontaine 2003, 1). This is further supported by data showing that younger groups of adults demonstrate higher average literacy and numeracy proficiencies with a curvilinear relationship found in the National Assessment of Adult Literacy (NAAL; OECD and Statistics Canada 2005; Kutner, Greenberg, and Baer 2005). It is clear that age and skills do not work alone but instead interact with cognitive processes, activities performed at work and at home, and the physiological impact of aging.

The negative relationship between age and performance was also observed in the data from the Learner Survey, where younger learners scored, on average, higher than older adults (see Figure 2.5 and Table 2.5). Average scores in prose and document literacy for the two youngest groups—ages 16 to 18 and 19 to 24—were at Level 2 compared with scores at Level 1 for the older cohorts. The largest differences were found in prose literacy, where the youngest age group—ages 16 to 18—scored 40 points higher than the second oldest group—ages 45 to 59. Performance in numeracy was not only more uniform across age groups, but it was also the only domain in which all age groups scored, on average, in Level 1. Differences in performance increased when the youngest group—ages 16 to 18—was compared with the oldest group—those over age 60. Those comparisons revealed differences of 84 points on the prose literacy scale, 69 points on the document literacy scale, and 53 points on the numeracy scale.

The distributions of performance around the average scores, as indicated by the size of the standard deviations, were higher for older age groups. For example, while the standard deviation on prose literacy was only 43 points for learners ages 16 to 18, it increased to 67 points for those ages 45 to 59. This increased variability in performance for older age groups was likely caused by many factors, one being that because the younger age group included a range of only 3 years, learners in that cohort were more homogeneous in their skills and educational experiences. In comparison, the older cohort included a range of 14 years, thus representing more variability in educational paths, experiences in the labor force, and overall health.

Figure 2.5

Age and skills on the prose literacy, document literacy and numeracy scales



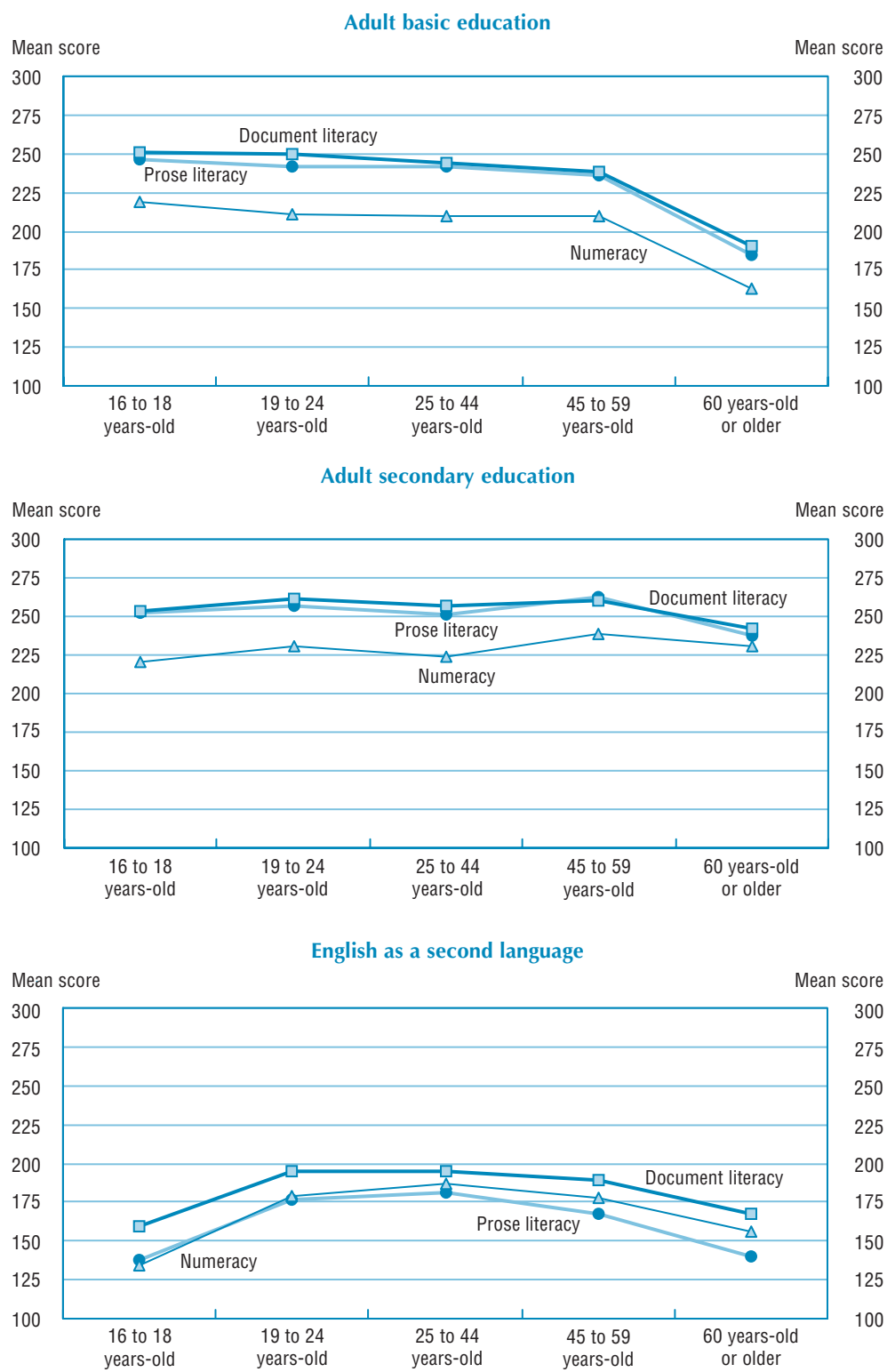
Results also showed that larger percentages of learners from the older cohorts scored at the lowest levels of literacy in all domains (see Table 2.5). On the prose and document literacy scales, 24 percent more learners ages 60 or older performed at Levels 1 and 2 compared with younger learners between the ages of 16 to 18. Learners in the middle categories—ages 19 to 24 and 45 to 59—had a more consistent distribution across scales. These differences should be interpreted in relation to the broader results, where approximately three-quarters of the younger cohort also performed at Levels 1 and 2.

The three types of adult education instruction—ABE, ASE, and ESL—are designed to meet the needs of different groups of learners and therefore, the relationship between performance and age remains relevant within these groups. Learners in these three types of instructional programs were, in general, not equally distributed across age groups. ESL learners were older, with 60 percent between the ages of 25 and 44 (see Table 2.6). From a different perspective, only three-quarters of ESL learners were younger than age 45 compared with 83 and 85 percent of ABE and ASE learners. Twelve percent of ASE learners were between the ages of 16 and 18, compared with only 4 percent of ABE learners and less than half of a percent of ESL learners.

Results also showed that the negative relationship between age and performance found for the overall results (shown in Figure 2.5) did not hold within types of instruction. A relatively flat relationship between age and performance was found among adults within ABE and ASE (see first two panels of Figure 2.6). In ABE, this relationship existed for learners up to age 59, with performance decreasing for the oldest group (see Table 2.6). ESL learners showed a unique pattern of performance where the relationship was curvilinear with the youngest and oldest age groups performing, on average, lower than the groups in the middle age range, particularly in prose literacy (see bottom panel of Figure 2.6). These relationships should not be over interpreted as there were very small percentages of ESL learners within the youngest and oldest age groups.

Figure 2.6

### Age, type of instruction and skills on the prose literacy, document literacy and numeracy scales



## Skills and the Role of Race, Ethnicity, Immigration Status, and Language

As the demographics of the American population become more diverse, immigration issues have taken on increasing importance in local and national political agendas. Immigration has reached levels not seen in this country in almost a century and it is likely to continue to impact the structure of adult education programs. This section examines demographic characteristics of the population of adult learners, associating their performance with characteristics such as place of birth, language, race, and ethnicity.

Adults attend adult education programs for different reasons. Some adults attend programs to acquire basic skills or secondary level certification. Others, for whom English is not their mother tongue, attend adult education programs to acquire or improve English skills. The two major language groups within the population of adult learners were English and Spanish. This is consistent with current demographics in American society where the largest ethnic group is Hispanics. Overall, 56 percent of adult education participants had learned English as their mother tongue, 29 percent learned Spanish, 7 percent learned an Asian language, and 2 percent learned one of the European languages (see Table 2.7).

Forty-four percent of adult learners reported that their mother tongue was not English. Of those learners, 13 percent still reported they used English at home and 44 percent reported using English at work. Among this same group of adult learners, 59 percent reported that Spanish was the language most used at home and 28 percent reported it was the language most used at work. When asked to evaluate their own English skills, 49 percent of these learners reported a limited understanding of English, 64 percent reported a limited capacity to speak English, 49 percent reported a limited capacity to read English, and 62 percent reported a limited capacity to write in English (see the AEPS database).<sup>30</sup>

As the language of testing, English played a role in overall performance when it was examined alone. In all domains, learners with English as their mother tongue performed better than learners who had other languages as their mother tongue. The differences on average performance ranged from 26 points in numeracy between learners whose mother tongue was English and those whose mother tongue was Spanish, to 55 and 47 points in prose and document literacy. The finding that differences in prose literacy were twice as large as differences in numeracy is consistent with the fact that prose literacy is more influenced by knowledge of the language structure including grammar and syntax. Numeracy is a more universal domain based on operations that transcend grammar and syntax. Once the basic mathematical operation is identified, language is not an issue in arriving at the solution. As a result, one would expect less variability or a more restricted range of performance on the numeracy measures for learners with different language backgrounds.

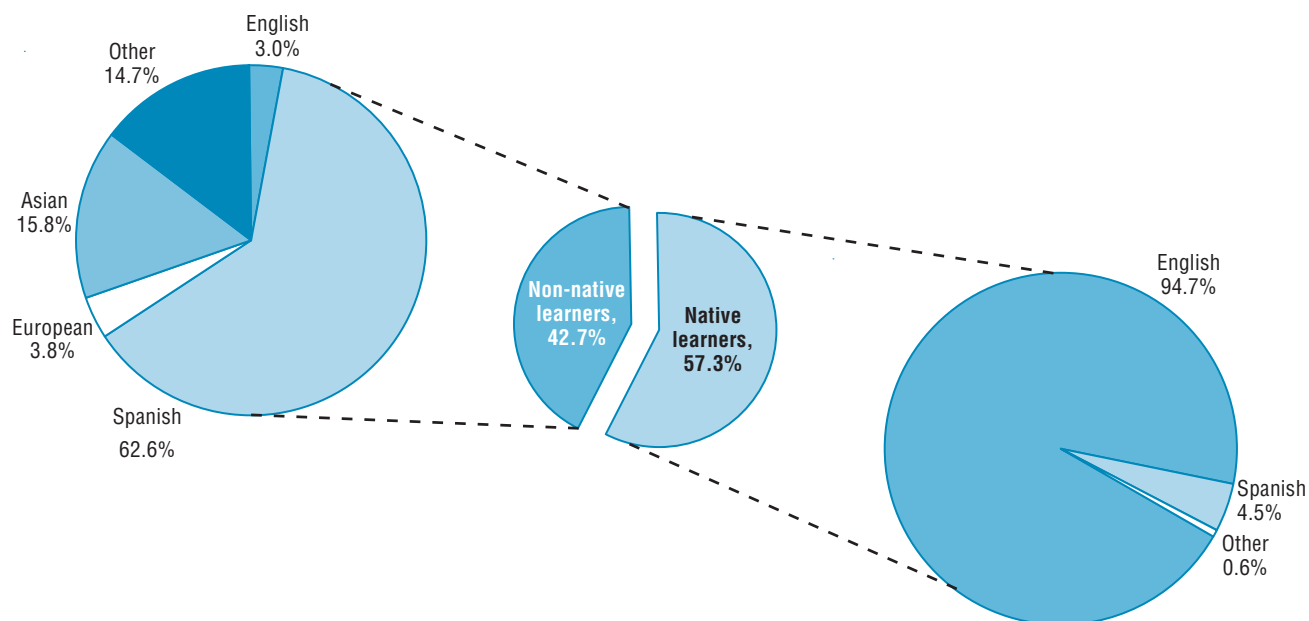
The relationship between language and skills can also be examined in terms of place of birth. Results showed that English was the dominant language among native adult education participants, spoken by 95 percent of them. On the other hand, the largest percentage of non-native learners (63 percent) reported they spoke Spanish at home. For non-native learners, Asian languages represented the second largest group, spoken by 16 percent of the adult learners (see Figure 2.7). Performance differences between learners whose mother tongue was English versus learners whose

<sup>30</sup> Learners who responded to background questions about their ability to understand, speak, read, or write English with the answers “not well” or “not at all” are reported as having limited understanding or capacity.

mother tongue was not English were minimized among native learners (6 points in numeracy to 9 points each in prose and document literacy). However, among non-native learners, those who spoke English as their mother tongue demonstrated higher average performances, particularly on the two literacy scales (29 points in document literacy and 39 points in prose literacy).

Figure 2.7

### First language learned at home in childhood and still understood, by place of birth



Race and ethnicity are additional characteristics that were investigated in terms of performance and educational progress. In 2003, 26 percent more Whites than Hispanics participated in postsecondary education in the United States, a gap that has increased over the past years (Hudson, Aquillino, and Kienzl 2005). AEPS data showed that 35 percent of all participants in adult education programs consider themselves to be of Hispanic origin.<sup>31</sup> Hispanics also represented 63 percent of non-native learners and 65 percent of the adults who were enrolled in ESL classes (see Figure 2.8 and Tables 2.8 and 2.19).

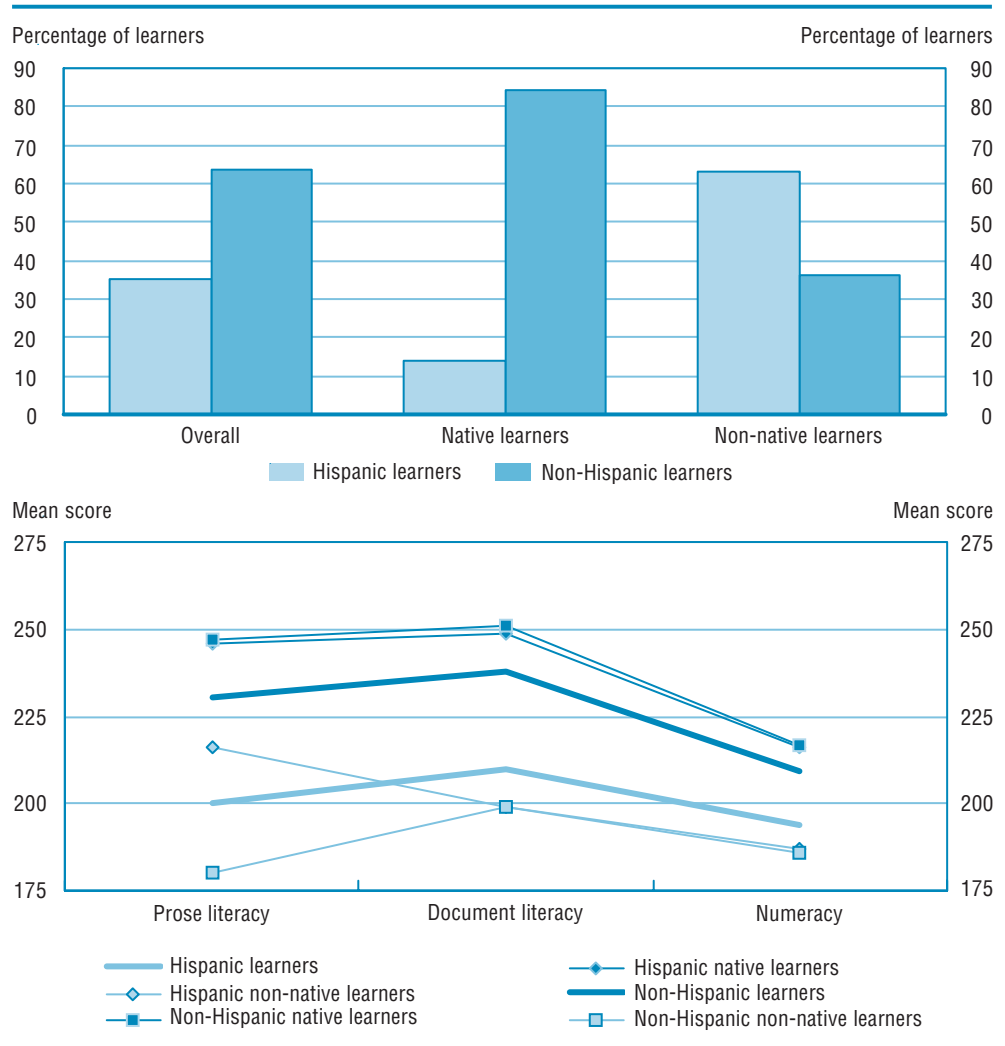
Non-Hispanic adult learners outperformed Hispanics by 30 and 28 points on the prose and document literacy scales. This difference decreased to half on the numeracy scale (see bottom graph in Figure 2.8). Approximately one quarter more Hispanics than non-Hispanics performed at Level 1 in both prose and document literacy while there were only 10 percent more in Level 1 in numeracy. Again, for this selected population of adults, these findings emphasize a strong interaction

<sup>31</sup> The Office of Management and Budget requires the use of a minimum of two ethnicities: Hispanic or Latino or not Hispanic or Latino. It defines Hispanic or Latino as “a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race” (Office of Management and Budget 1997). In the background questionnaire for the AEPS, Hispanic, Latino or Spanish was specified to include Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, or another Hispanic, Latino or Spanish group.

between mother tongue and performance in literacy and may reflect both educational experiences and opportunities to learn English. The larger performance differences in literacy could be associated with the finding that 32 percent more Hispanic learners reported a limited capacity to read English and 36 percent more Hispanic learners also reported a limited capacity to write English (see the AEPS database).<sup>32</sup>

**Figure 2.8**

**Ethnicity and skills on the prose literacy, document literacy and numeracy scales**



Place of birth seemed to play a role in neutralizing performance differences across ethnic groups. While there was a 30 point average difference between Hispanic and non-Hispanic adult learners on the prose literacy scale, this difference disappeared when we looked at place of birth within these two groups. For example, the average performance of native Hispanic and native non-Hispanic adult learners was similar (246 compared with 247 points). Similar performance levels were also found between non-native Hispanic and non-native non-Hispanic adult learners (186 compared

<sup>32</sup> Learners who responded to background questions about their ability to understand, speak, read, or write English with the answers “not well” or “not at all” are reported as having limited understanding or capacity.

with 180 points) in prose literacy. This pattern held true on the document and numeracy scales as well (see Table 2.8). Again, these results emphasize the confounding influences of ethnicity and language when performance in English is examined.

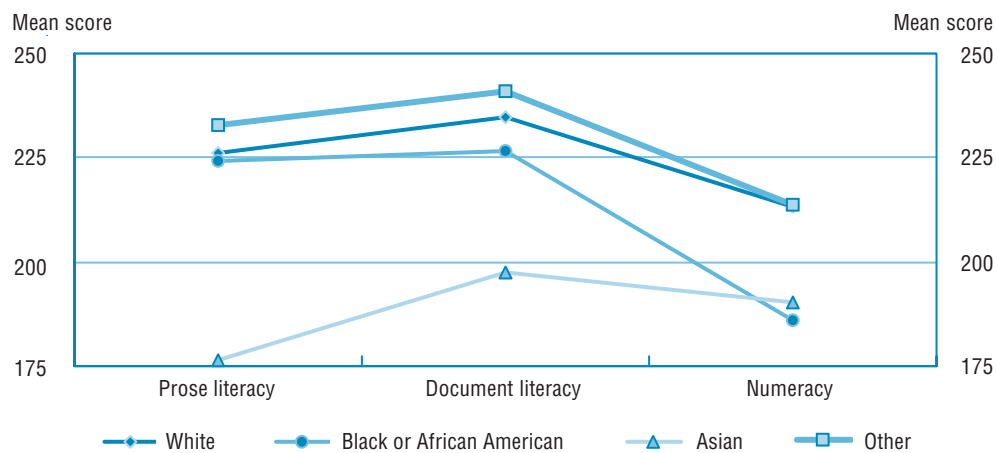
The AEPS examined race following the approach of the U.S. Census that allows individuals to specify one or more categories from the following list: White, Black or African-American, Asian, Native Hawaiian or Pacific Islander, and American Indian or Alaska Native.<sup>33</sup> Three-quarters of the adult learners reported they were either White (53 percent) or Black (21 percent). Average scores showed there were no significant differences between Whites and Blacks on the prose and document literacy scales.<sup>34</sup> However, the distribution of learners by levels showed that 11 and 14 percent more Blacks than Whites performed at Levels 1 and 2.

The Asian population of adult learners performed lower than the other racial groups. The reasons for this seem again to be associated with language and immigration. Ninety-seven percent of the Asian adults who participated in adult education programs in 2001 were born in a foreign country. Of these, approximately half had been in the United States for less than 5 years. In addition, 26 percent completed high school and 32 percent completed some education beyond high school before immigrating to the United States (see the AEPS database). Given these data and the fact that Asian languages and orthography are so different from English, it is understandable that their performance on a test presented in English would be negatively impacted.

The race category “other” was composed of less than 1 percent of learners who were of Native Hawaiian or Pacific Islander origin and over 5 percent of learners who were of American Indian or Alaska Native origin. Around three quarters of them were native and over three-quarters spoke English as their mother tongue. Consequently, only 20 percent were ESL participants. These learners performed higher than the other race categories in prose and document literacy and similar to White learners in numeracy, as seen in Figure 2.9 (see also Table 2.9).

Figure 2.9

### Race and skills on the prose literacy, document literacy and numeracy scales



<sup>33</sup> Because of the small numbers of respondents in the Native Hawaiian or Pacific Islander and American Indian or Alaska Native categories, those were combined for analysis into the category “Other.”

<sup>34</sup> Significance level of 5 percent.

## Educational Attainment, Place of Birth and Skills

One characteristic of adult learners expected to be different from the general adult population is educational attainment. Educational attainment was found to have a positive relationship with the skills assessed in the ALL and therefore similar results would be expected for the AEPS (OECD and Statistics Canada 2005). Given the large number of immigrants within the adult learner population, it is interesting to examine not only the learners' current educational levels, but also where their education was completed. Using data from the background questionnaire, educational attainment is examined from two perspectives:<sup>35</sup>

1. The first focuses on native learners, that is, those learners who were born in the United States. These adults were highly likely to have obtained their formal education in the United States. They represented 57 percent of adult learners and their educational attainment was examined based on their answers to the following question: What is the highest level of schooling you *completed in* the United States?
2. The second focuses on non-native learners, that is, those learners who were born abroad. These learners obtained their education either: (a) in their home country before immigrating to the United States, (b) in the United States after immigration, or (c) some combination thereof. This group represented 43 percent of adult learners and educational attainment was examined based on their answers to the following question: What was the highest level of education you *completed before* you immigrated to the United States?<sup>36</sup>

Native learners were likely to participate in adult programs to improve their academic skills by attending ABE and ASE classes (two-thirds and one-third of learners respectively). On the other hand, most non-native learners appeared to participate in adult programs to improve their English skills as 85 percent of them attended ESL classes and only 3 percent reported English as their mother tongue.

For the purpose of analysis, data from the background questionnaire was grouped into six categories of educational attainment: no education, up to 8th grade, between 9th and 11th grades, completed high school, completed high school through a GED certification or equivalent, and attained or completed some education beyond high school (ranging from two-year programs to bachelor's, master's or doctorate programs).<sup>37</sup>

<sup>35</sup> Information about educational attainment was collected via two questions in the background questionnaire. The first, question A4, was meant to be answered only by learners who were not born in the United States and asked about the highest level of education they completed before first immigrating to the United States. The second question, B1, was designed to be answered by all learners and asked them about the highest level of schooling they completed in the United States. For question B1, 78 percent of learners not born in the United States answered "none," meaning they did not obtain any education in the United States (although many of these learners obtained some level of education in their home country before immigrating to the United States). For the purposes of these analyses, question A4 was used to examine educational attainment for learners born outside of the U.S. and question B1 was used for learners born in the U.S.

<sup>36</sup> This model for interpreting educational attainment has limitations for non-native learners because it does not account for any education these learners completed in the United States after immigration. A brief examination of the data showed the following categories for non-native learners regarding level of education completed in the United States (presumably after immigration): (a) completed up to 8th grade: 3.7 percent, (b) completed 9th to 11th grades: 6 percent, (c) completed 12th grade to graduation from high school: 3 percent, (d) obtained GED or equivalent: 2 percent, (e) had some education beyond high school: 5 percent, and (f) had no education: 3 percent. For these cases, this report uses their education prior to immigration as the basis, which may lead to misinformation for a few learners concerning their highest level of education.

<sup>37</sup> Due to low cell frequencies, this category has been grouped to include the following original groups from question B1: (a) vocational/technical program after high school but no diploma, (b) vocational/technical diploma after high school, (c) some college but no degree, (d) associate's degree (A.A., A.S.), (e) bachelor's degree (B.A., B.S.), (f) graduate school or professional school but no degree, (g) master's degree (M.A., M.S.), (h) doctorate degree (PhD, EdD), or (i) professional degree beyond bachelor's degree (medicine/MD, dentistry/DDS, Law/JD/LL.B.).

All learners, native and non-native, were asked to specify the highest level of schooling they had completed in the United States. Overall, 9 percent of learners reported having completed only primary education (i.e., up to 8th grade) and 53 percent reported completing up to secondary level (i.e., between 9th grade and the completion of high school either through traditional education or GED certification) (see first panel of Table 2.10). The category *no education* deserves special note, as it represented 34 percent of all learners. It is important to remember that these learners answered they had completed no education in the United States, which is clearly different from having completed no education at all. When this category was broken down by whether the learners were native or non-native (see second and third panels of Table 2.10), the data interpretation changed.

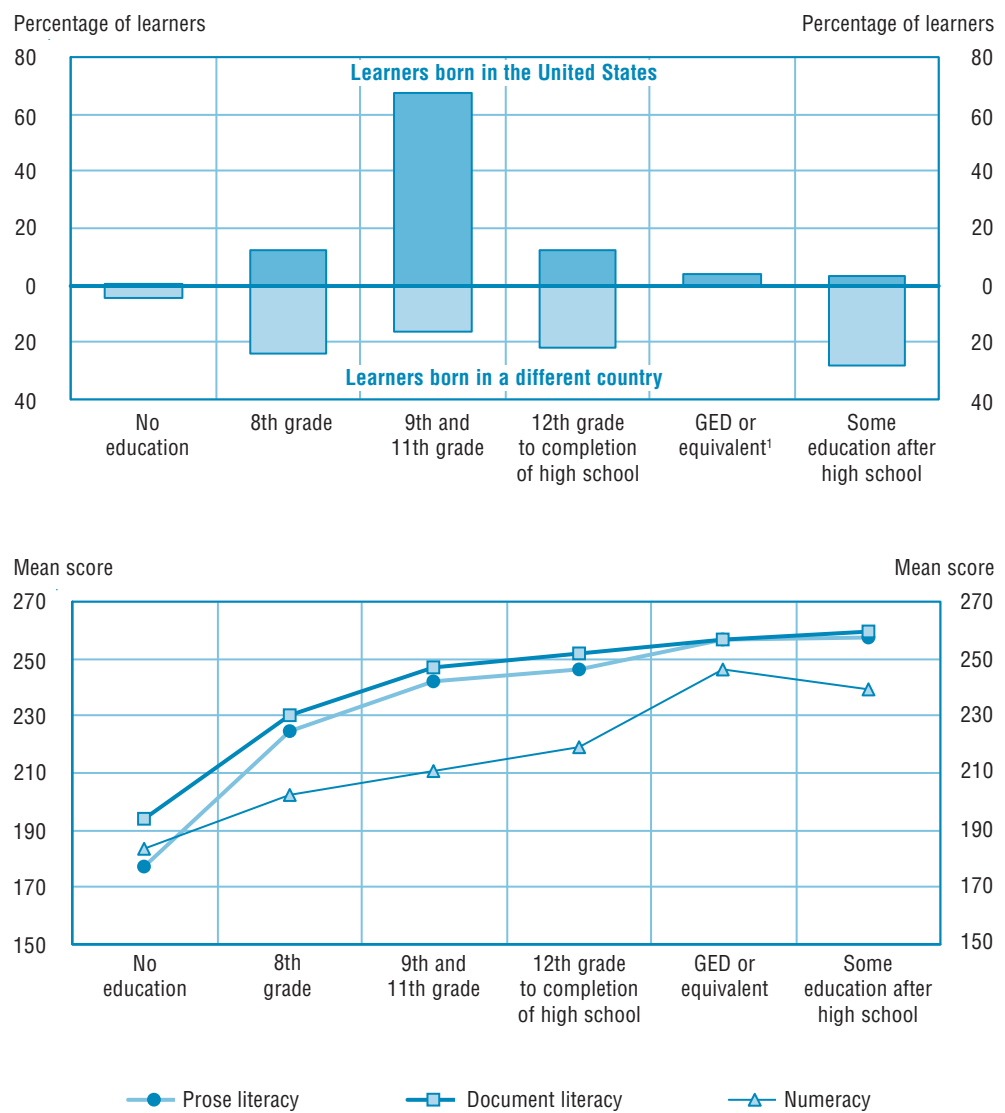
Native learners, shown above the horizontal axis in Figure 2.10, represented 57 percent of the adult learner population with only a negligible number who reported having no education (see also Table 2.10). Thirteen percent of native learners completed primary education, while over three-quarters completed some amount of secondary education. That is, some 68 percent completed 9 to 11 years of school while another 16 percent of native-born learners completed high school (either through traditional programs or GED certification). Slightly less than 4 percent of learners reported completing some education after high school.

Forty-three percent of learners were non-native and these are shown below the horizontal axis in Figure 2.10. Only 4 percent reported having completed no education before immigrating to the United States, while 91 percent of learners in this category completed some education in their own country (see also Table 2.10). Some 24 percent completed up to 8th grade and 39 percent completed some secondary education (i.e., between nine years of school and the completion of high school). An additional 28 percent reported they continued their education beyond the secondary level, including 13 percent of learners who completed a bachelor's degree (see the AEPS database). This category is larger than the similar category for native learners. The influence of language is clear within this category. These adults could be attending adult education programs for two reasons: either because the education they had completed did not provide them with the basic literacy skills they needed in this society, or most likely, because they had not mastered the English language.

The second panel in Figure 2.10 shows the average proficiency of adult learners for each of the educational attainment groups. The average score differences between native adults with more than a high school education and those who reported no education was 86 points in prose literacy, 79 points in document literacy, and 64 points in numeracy—differences that were larger than one standard deviation. When comparisons were made between native adults who completed up to 8th grade education and those who reported they went beyond high school, these differences decreased to 53, 51, and 52 points respectively on the prose, document and numeracy scales. As these data reveal, education can play an important role in reducing the size of the literacy and numeracy skills gaps among adults.

Figure 2.10

Educational attainment and skills on the prose literacy, document literacy and numeracy scales



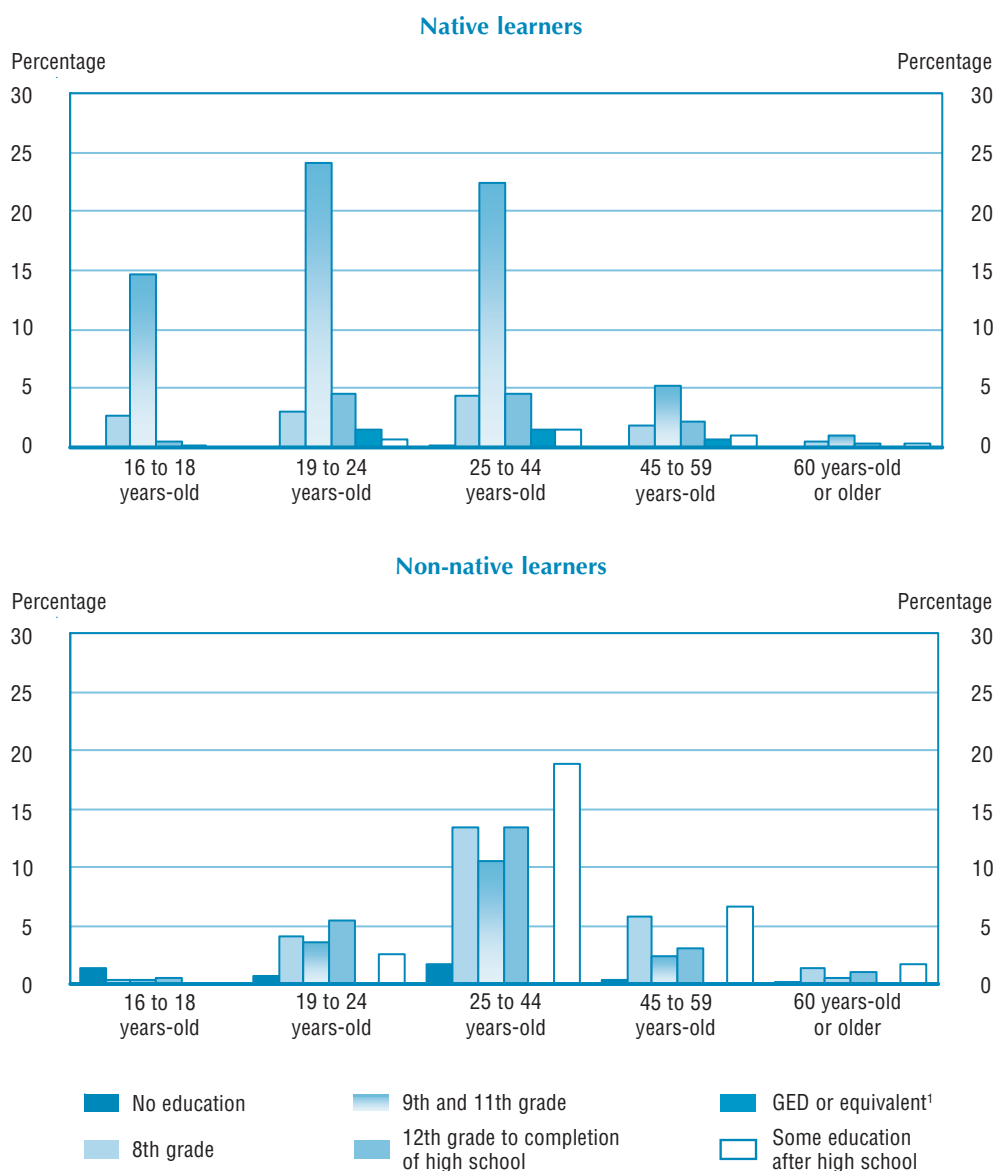
<sup>1</sup> Category nonexistent for adult learners born in a different country.

A surprising, but explainable, finding concerns the higher performance of non-native learners who reported no education before immigration, compared with those who reported some education. These findings could be related to both the length of time that had elapsed since their immigration and their experiences post-immigration. As mentioned in Footnote 35, the model used to report educational attainment for non-native learners does not account for any education these learners completed in the United States after their immigration. In fact, only 4 percent of non-native adult learners reported no education before immigration (see Table 2.10). From these, 20 percent reported completing up to 8th grade and an additional 53 percent reported completing 9th to 11th grade in the United States after immigration (see the AEPS database).

Education and skills play an important role in the social and economic conditions of individuals in many developed and developing countries. Figure 2.11 shows the distribution of educational attainment by age. The length of the bars represents the proportion of adult learners in each age group. Combined, young adults between the ages of 19 to 24 and adults between the ages of 25 and 44 represented two-thirds of native adult learners and within these groups, the majority reported having completed between 9th and 11th grades. The largest percentage of non-native adult learners was between the ages of 25 to 44. Overall, a larger proportion of these learners completed some education beyond high school than the similar group of native learners.

**Figure 2.11**

**Educational attainment and skills on the prose literacy, document literacy and numeracy scales, by age groups**



1 Category nonexistent for non-native learners.

## Complex Characteristics Related to the Adult Learner Population and Skill Levels

Previous sections of this chapter examined performance on the prose literacy, document literacy and numeracy scales, and associated these results with demographic characteristics such as gender, age, race, immigration status, mother tongue, and educational attainment. This section now examines the relationship between literacy and numeracy and adults' reading habits, wealth, and health status. The background questionnaire in the Learner Survey collected information on these topics, and learners' responses were grouped to create indices using latent class analysis.<sup>38</sup> This analysis "provides a means for organizing individuals into groups or classes based on their patterns of responses to sets of questions" (Rudd, Kirsch, and Yamamoto 2004, 29).

### Literacy and Reading Engagement

Reading is embedded in many aspects of adult life, including the workplace, educational settings, and personal contexts which involve activities such as obtaining information about and managing issues related to finances, health care, social benefits and housing. As a result, adults are frequently faced with the task of interpreting information from written materials and, in many cases, acting on that information to make important decisions. These written materials follow different formats and are written at varying levels of difficulty for a range of audiences. All of these factors influence the complexity of reading tasks and therefore the ability of adults with different backgrounds and experiences to successfully complete those tasks.

The background questionnaire of the Learner Survey included questions on aspects of learners' reading habits including: (a) the frequency with which they used a public library or visited a bookstore, (b) the amount of time they spent each day watching television or videos, and (c) the frequency with which they read or used information from newspapers, books, magazines, letters, notes, and e-mails. If learners reported that they read newspapers they were asked to identify the parts of the newspaper they read and were provided a list that included: national/international or regional/local news; sports; home, fashion, food or health (entertainment sections); the editorial page; financial news or stock listings; book, movie or art reviews; and advice columns.

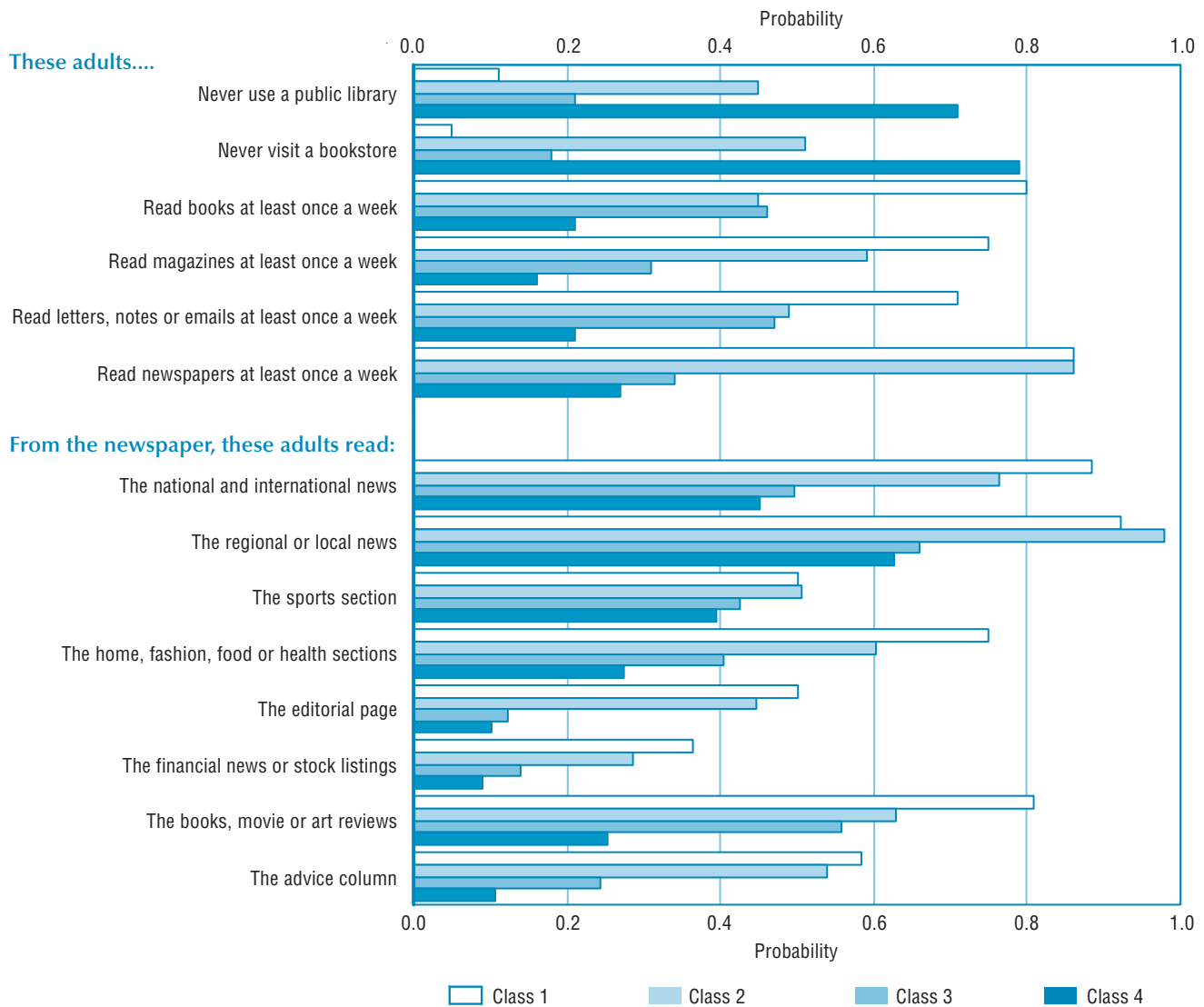
These variables were jointly examined through latent class analysis (LCA) that identified four classes of adult learners by associating their levels of reading engagement with their performance on literacy and numeracy tasks. Table 2.11 shows the results of the LCA for each component of reading engagement. The values in each cell represent the likelihood that an individual in that class possesses these characteristics. These probabilities help to characterize the presence or absence of each characteristic for a given class or group of adults and review how each class differs from the other classes across the group of characteristics. The interpretation of the four classes of reading engagement follows.

<sup>38</sup> "Latent class analysis identifies a set of classes or groups based on a set of probabilities associated with a set of characteristics, as well as the differences in the prevalence of each characteristic across the identified groups or classes. For example, a high probability indicates a strong likelihood that a given characteristic is present, while a low probability indicates a strong likelihood that a given characteristic is absent" (Rudd, Kirsch, and Yamamoto 2004, 29).

- **Class 1** represented 23 percent of participants in adult education programs. Adults in this group were frequently engaged with various print materials, including newspapers, books, magazines, letters, and notes or emails. These adults were likely to read the news and entertainment sections of the newspaper, but less likely to read the financial news and stock listings. Adults in this class were considered *highly engaged readers*. The first set of bars in Figure 2.12 shows the probabilities that adult learners in Class 1 responded in a particular way to a selected set of questions (see the full set of response probabilities in Table 2.11).
- **Class 2** represented 28 percent of participants in adult programs. Adults in this group were characterized by a high engagement with newspapers and a moderate engagement with other materials such as books, magazines, letters, notes and emails. Similar to Class 1 learners, they were highly likely to read newspapers, in particular the national, international, regional and local news. They were also likely to read the remaining sections with the exception of the financial news. On the other hand, these adults had lower probabilities than adults in Class 1 of reading other types of materials besides newspapers, and had a higher probability of never using a library or never visiting a bookstore. Adults in this class were considered *moderately engaged readers*. The second set of bars in Figure 2.12 shows the probabilities that adult learners in Class 2 responded in a particular way to a selected set of questions (see the full set of response probabilities in Table 2.11).
- **Class 3** represented 27 percent of participants in adult programs. Adults in this group were characterized by a moderate engagement with books, letters, notes or emails and a lower engagement with magazines and newspapers. When reading newspapers, these learners had a moderate likelihood of reading the news, sports and entertainment sections. They were not likely to read the editorial page, financial news, or stock listings. What differentiated them from the Class 2 learners was the lower likelihood of reading any of the listed materials and the much lower probability of reading the newspaper. Adults in this class were considered *low engaged readers*. The third set of bars in Figure 2.12 shows the probabilities that adult learners in Class 3 responded in a particular way to a selected set of questions (see the full set of response probabilities in Table 2.11).
- **Class 4** represented 23 percent of participants in adult programs. These learners rarely or never read, but when they did, they were slightly more likely to read newspapers than other types of reading materials. When reading newspapers, these learners were moderately likely to read only the news sections. Adults in this class were considered the *least engaged readers*. The fourth set of bars in Figure 2.12 shows the probabilities that adult learners in Class 4 responded in a particular way to a selected set of questions (see the full set of response probabilities in Table 2.11).

Figure 2.12

Classification of reading engagement for participants of adult education programs, AEPS population

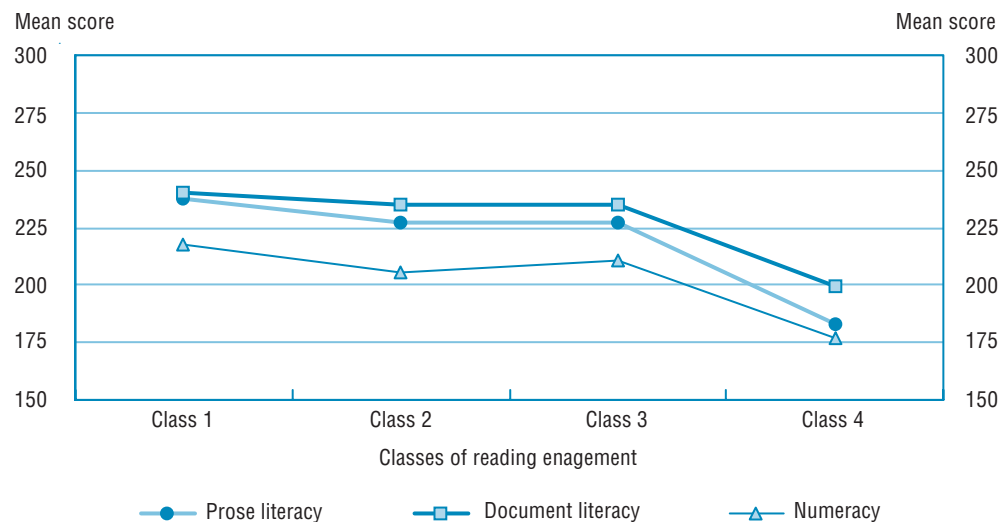


These classes become informative tools for understanding the reading habits of participants in adult education programs and how these are associated with their performance. Figure 2.13 contrasts average performance on the three scales with levels of reading engagement (see also Table 2.12). These results showed a positive relationship between these two aspects, with more engaged readers performing, on average, better than less engaged readers. Differences in performance between Class 1 and Class 4 adults were statistically significant for all three scales. For example, on average, readers in Class 4 (least engaged) performed at Level 1 on all three scales, while the remaining classes performed at Level 2 on the prose and document literacy scales. As might be expected, reading engagement had the strongest influence on prose literacy where the gap between Class 1 (highly engaged) and Class 4 (least engaged) readers was 54 points. These gaps decreased to 42 and 41 points on the document and numeracy scales. The influence of reading engagement on overall

performance for the two intermediate classes—Class 2 and Class 3—was small, although the average performance of adults in these two classes remained closer to the average performance of Class 1 (highly engaged) than Class 4 (least engaged) readers. The difference in average performance between adults in Classes 3 and 4 was between 3 and 6 times larger than the difference in average performance between adults in Classes 1 and 2.

Figure 2.13

### Skills on the prose literacy, document literacy and numeracy scales by levels of reading engagement, AEPS population



Demographic and social characteristics may also influence the relationship between literacy and levels of reading engagement. Table 2.12 shows data for a selective set of background variables, including gender, age, place of birth, race, ethnicity, mother tongue, educational attainment, and learners' perception of how well they read English. These categories also showed a positive relationship between reading engagement and performance. Out of the 34 categories that are shown in this table, significant differences between average scores in Class 1 and Class 4 were found in at least 80 percent.<sup>39</sup> Within many categories, there was a tendency to find smaller differences between Classes 1, 2, and 3 (i.e., adults who demonstrated some reading engagement) than the differences between these and Class 4. That is, the performance results on the prose literacy scale were consistent for Classes 1 to 3, with Class 4 showing lower levels of performance than the other classes. This finding held for most of the variables shown in Table 2.12. Therefore, it seems that performance was positively influenced by some reading engagement when compared to the class which had almost no engagement.

Figure 2.14 shows average performance on the prose literacy scale by levels of reading engagement and educational attainment. Educational attainment was examined following the model previously described (see Footnote 35). The top chart considers native learners and the bottom chart considers non-native learners. In both groups, adults who completed more than high school represented the largest

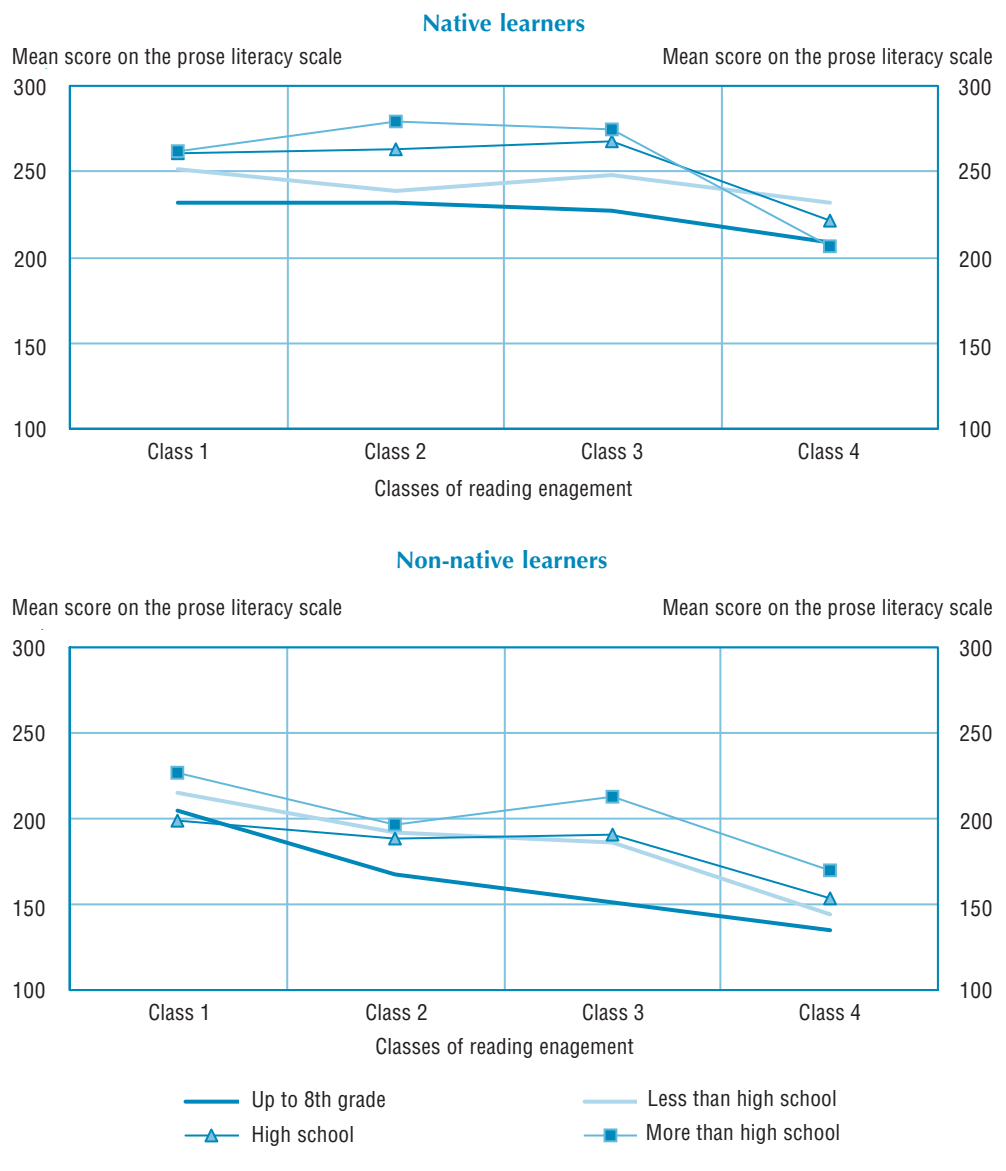
<sup>39</sup> Significance level of 5 percent.

percentage of adults in Class 1 (37 percent of native and 33 percent of non-native adults). In Class 4, the largest groups represented adults who completed up to 8th grade education (23 percent of native and 45 percent of non-native adults).

Within the classes of reading engagement, educational attainment and place of birth seemed to interact in the two higher levels of reading engagement—Classes 1 and 2. In Class 1 native adult learners who completed more than high school scored 30 points higher on the prose literacy scale than learners who completed up to 8th grade education. In Class 2 this difference was 48 points. There were no differences for adults in Class 4. These results show that even when learners were highly engaged in reading, their educational attainment still gave them an advantage in overall performance.

**Figure 2.14**

**Skills on the prose literacy scale and educational attainment by levels of reading engagement and place of birth, AEPS population**



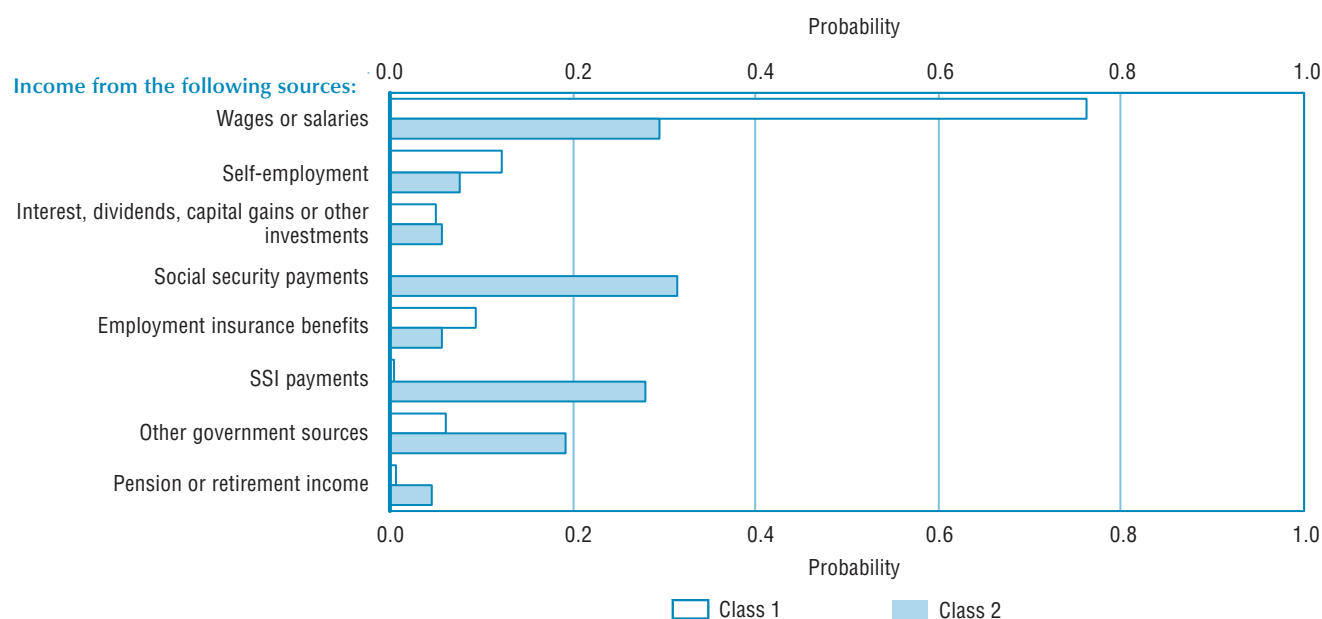
Across the classes of reading engagement, educational attainment played a stronger role on the performance of non-native adults on the prose literacy scale (bottom chart). For non-native adults with the same educational attainment, performance on the prose literacy scale by highly engaged adults (i.e., Class 1) was 70 points higher for those who completed up to 8th grade, and 46 points higher for adults who completed high school than adults who were not engaged (i.e., Class 4). These differences were 23 and 39 points for the native adults. The larger differences found for non-native adults could be related to familiarity with language. Table 2.12 shows that Class 4 accounts for 47 percent of adults who said they did not understand English well and 46 percent of adults who said they did not understand English at all.

## Literacy and Wealth

National and international surveys of literacy have shown that educational attainment and skills are related to levels and sources of income. The background questionnaire of the Learner Survey asked respondents about their sources of income during the previous program year in an attempt to gather this type of information among adult learners. These variables, examined through latent class analysis, resulted in the identification of two classes of adults that associate performance with their level of wealth, although wealth interacts with performance in complex and multidimensional ways. Figure 2.15 shows the results of this analysis for each component of the wealth indicator, as probabilities for each class having income from sources that included wages or salaries; self-employment; interest, dividends, capital gains or other investment income; social security payments; employment insurance benefits; other government sources; and pension or retirement income (see question D6 in Appendix A3 for the complete list of income sources included in the background questionnaire). The interpretation of the two classes for wealth follows.

Figure 2.15

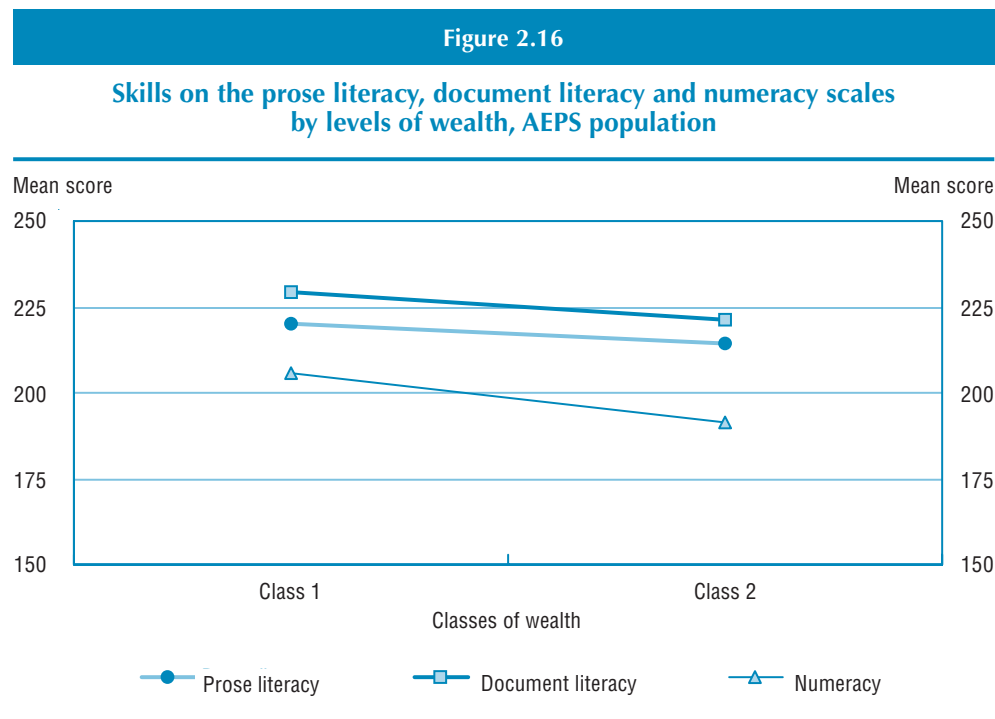
### Classification of wealth for participants of adult education programs, AEPS population



- *Class 1* represents 85 percent of participants in adult programs. This group of learners had a high likelihood of having wages or salaries (including commissions, tips, and bonuses) as their only source of income. The first set of bars in Figure 2.15 shows the probabilities that adult learners in Class 1 responded “yes” to a particular source of income (see the full set of response probabilities in Table 2.13).
- *Class 2* represents 15 percent of participants in adult programs. In general, this group of learners had a low likelihood of having any income, but when they did, it came from a combination of wages or salaries, social security benefits and SSI payments. The second set of bars in Figure 2.15 shows the probabilities that adult learners in Class 2 responded “yes” to a particular source of income (see the full set of response probabilities in Table 2.13).

The benefits of higher levels of skill development are likely to include better opportunities in the labor market and the possibility of higher income. While 50 percent of learners in the adult education population were employed, 33 percent were unemployed or looking for work. As shown in Table 2.13, the probability of adult learners in either Class 1 or 2 receiving investment-based income including interest, dividends, and capital gains was close to zero. The data suggest that both classes within the adult learner population had somewhat restricted sources of income, particularly, as will be shown in Chapter 3, when compared to the general population of adults.

Figure 2.16 shows the relationship between wealth and performance on the three scales. Adults in Class 1 had significantly higher average scores than adults in Class 2 only on the numeracy scale, where adults in Class 1 scored 14 points higher.<sup>40</sup> The small difference in performance between these two classes may reflect a low variability in income that is likely to exist among the adult learner population.



<sup>40</sup> Significance level of 5 percent.

Table 2.14 shows the percentage of adults and average performance on the three scales for a series of background variables for the two classes of wealth. Within levels, the relationship between educational attainment and performance remained, with higher average performance found in Class 1. The difference was statistically significant for native adults who completed less than a high school education where 17 points on the prose literacy scale and 21 points on the numeracy scale separated those in Class 1 from those in Class 2.<sup>41</sup> These differences were 38 and 35 points for non-native adults on the prose and numeracy scales, respectively. Across levels, the influence of education was larger in Class 2 where 63 and 53 points on the prose literacy scale separated native and non-native learners who had more than high school education from those who had up to 8th grade education. These differences were 36 and 51 points for adults in Class 1.

The positive relationship between performance and wealth was small for the other demographical and social variables, with significant differences for 7 categories in prose literacy, 6 categories in document literacy, and 11 categories in numeracy out of the 28 demographic categories that are shown in Table 2.14.<sup>42</sup> As adults were not equally distributed across classes, there were some differences that also occurred within categories. For example, the lower performance of adults in Class 2 was also associated with larger representations of the following categories among them: (a) 20 percent native adults, (b) 25 percent of adults aged 56 to 65, (c) 25 percent of native adults who had no education, (d) 26 percent of native adults who had up to 8th grade education, (e) 22 percent of adults who were unemployed, and (f) 24 percent of adults who were not in the labor force.

## Literacy and Health

High variability existed in the age distribution of participants in adult education programs, as shown in Table 2.5. Forty-six percent of participants were between the ages of 25 and 44 and an additional 17 percent were older than age 45. A consequence of this variability in age is the potential impact of health on performance.

The background questionnaire for the Learner Survey asked learners about various aspects related to their physical and mental health. It included questions on (a) their overall impression concerning their health, (b) how they felt about their lives over the past 12 months, (c) how much their health limited everyday activities, (d) whether their physical health interfered with their work or daily activities, (e) whether any emotional problems interfered with their work or daily activities, (f) the extent to which pain may have interfered with their normal work, (g) how often they felt calm and peaceful, (h) how often they had lots of energy, (i) how often they felt downhearted and blue, and (j) how often their physical health or emotional problems interfered with social activities. These variables, examined through latent class analysis resulted in the identification of four classes of adults based on the overall health. Figure 2.17 shows the results of this analysis for each component of the health indicator, as probabilities of agreeing with certain statements concerning their health. The interpretation of the four classes for health follows.

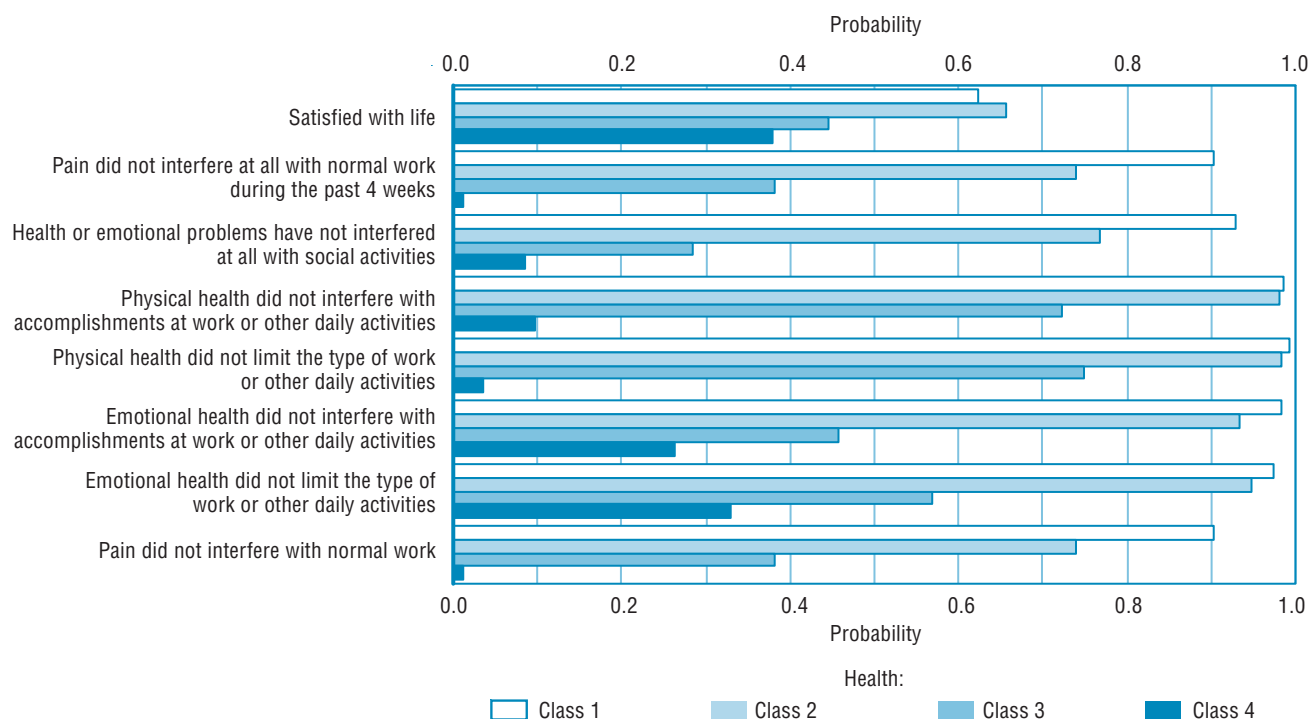
<sup>41</sup> Significance level of 5 percent.

<sup>42</sup> Significance level of 5 percent.

- **Class 1** represents 31 percent of participants in adult education programs. These adult learners had a high likelihood of being satisfied with their lives and had a moderate likelihood of saying they were in excellent health. Their physical health, emotional health, and pain did not interfere with their everyday activities. In the past 4 weeks they were moderately likely to feel calm and peaceful, have energy, and not feel downhearted and blue. This class represents adults who are in *excellent health*. The first set of bars in Figure 2.17 shows the probabilities that adult learners in health Class 1 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities in Table 2.15).
- **Class 2** represents 37 percent of participants in adult programs. These learners had a moderate likelihood of being satisfied with their lives and had a moderate likelihood of saying their health was very good or good. Their current health was not interfering with their everyday activities, they did not have problems at work or other regular activities because of their physical health, and pain did not interfere with their normal work. They were moderately likely to say that most of the time they felt calm and peaceful, had energy, and they reported feeling downhearted only a little of the time. Their social activities were not affected by their physical or emotional problems. This class represents adults in *good health*. The second set of bars in Figure 2.17 shows the probabilities that adult learners in health Class 2 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities in Table 2.15).
- **Class 3** represents 29 percent of participants in adult programs. Adult learners in this class differed from those in Class 1 in terms of their emotional health. These learners had a moderate likelihood of being satisfied with their lives over the past 12 months and were more likely to say their health was good. Their current health was not interfering with everyday activities and pain did not interfere with their normal work. While they had not had any problems related to their physical health, they were more likely to have problems with work or daily activities as a result of emotional problems. In general they felt calm and peaceful, had energy, and did not feel downhearted and blue. Their social activities had been limited some of the time by physical or emotional problems. This class represents adults in *moderate health*. The third set of bars in Figure 2.17 shows the probabilities that adult learners in health Class 3 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities in Table 2.15).
- **Class 4** represents less than 4 percent of participants in adult programs. These learners had a low likelihood of being satisfied with their lives and reported that their health was in fair condition. They reported that their current health was interfering with their daily activities, and they were likely to have problems at work or other regular activities because of their physical health, including the existence of pain which interfered quite a bit in their normal work. They reported that only some of the time they were calm and peaceful, had energy and did not feel downhearted. Their social activities had been limited some of the time by physical or emotional problems. This class represents adults in *poor health*. The fourth set of bars in Figure 2.17 shows the probabilities that adult learners in health Class 4 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities in Table 2.15).

Figure 2.17

### Classification of health for participants of adult education programs, AEPS population

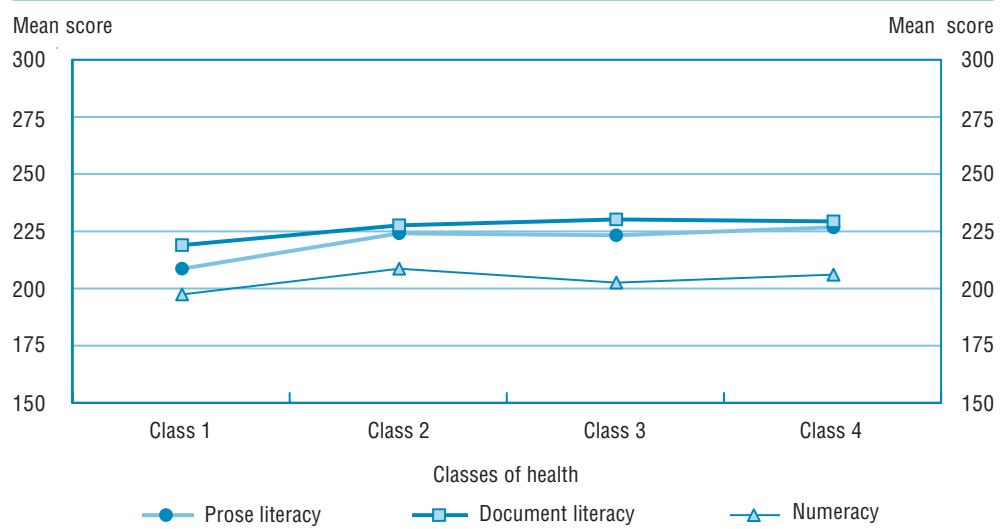


The health classes can also be examined according to their relationship with performance and other background variables. Previous studies that have looked at the relationship between literacy and health activities have shown that health literacy was related to wealth indicators, reading practices, and social factors including educational attainment and age (Rudd, Kirsch, and Yamamoto 2004). Table 2.16 shows the percentage of adult learners and their average performance on the three scales for each of the four health classes.

Figure 2.18 shows no strong relationship between health classes and performance. Average performances in Classes 1 and 4 are statistically different only on the prose literacy scale, where adult learners in Class 4 performed on average 19 points higher than adults in Class 1. This relationship is not clear as Class 4 represents adults who reported health problems. Significant differences between Class 1 and Class 4 were also found among 12 demographic categories, including 4 categories on the prose literacy scale, 3 categories on the document literacy scale, and 1 category on the numeracy scale. Within these, differences were found for female learners and adults ages 46 to 55 on two literacy scales, and adults who were employed on all three scales. Some other differences on the characteristics of the distribution of adults within classes of health included Class 1 having 20 percent more non-native than native learners and, as one might expect, Class 4 having higher percentages of older learners.

Figure 2.18

**Skills on the prose literacy, document literacy and numeracy scales by levels of health, AEPS population**



### Geographic Distribution of Adult Program Participants

The Office for Vocational and Adult Education specifies four geographical regions for adult programs: Eastern, Southern, Midwestern, and Western. Chapter 1 examined the distribution of adult education programs across these four regions based on responses to the Program Survey. This section presents characteristics of adult learners who attended these programs, based on responses in the Learner Survey.<sup>43</sup> As was noted in Chapter 1, examining the data by region is useful as it serves to highlight some of the variability in adult education across the country. However, because of the presence of a number of very large programs—particularly in the Western and Southern regions—it is important to keep in mind that the data for any one region does not represent every state in that region. For example, the data for the Southern region may more accurately reflect program or learner characteristics in Texas or Florida than other states that represent a much smaller segment of adult education programs and participants in that region.

The Eastern region was the smallest of the adult program regions and served 14 percent of learners in the United States. The Southern region was the largest and served 39 percent of adult learners. The two other regions, Midwestern and Western, served 19 and 28 percent of adult learners respectively. Table 2.17 shows percentages of adults and their average performance in prose literacy for a series of key demographic and social variables associated with the characteristics of adult program participants by the four regions.

<sup>43</sup> See Table 1.16 for adult program characteristics for each of the four regions which include: the Eastern region—Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; the Southern region—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; the Midwestern region—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and the Western region—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

The Eastern region had the largest concentration of Black adult learners and consequently, the smallest concentration of White learners. Forty-four percent of adult learners in this region were unemployed, with an unemployment rate of 66 percent among Black learners. The high unemployment rate for Black learners in this region compares with a national average of 50 percent unemployment for the same group (see the AEPS database). Among the four regions, the Midwest had the highest employment rate at 53 percent.

The Western region had 72 percent of non-native learners—a percentage that was more than twice that of other regions—with 62 percent of its learners in ESL. Hispanic adult learners represented 58 percent of participants in adult education programs in this region and 53 percent of its adult education participants reported Spanish as their mother tongue.

Although the states of Florida and Texas are included in the Southern region—states that are known to have high percentages of immigrants—Hispanic adults represented only 25 percent of adult education participants in this region. Only 26 percent of adult learners in the Southern region attended ESL classes while 49 percent attended ABE classes.

Across domains, the Midwestern region showed the smallest percentages of adults performing at Level 1. Thirty-nine percent of learners from the Midwestern region performed at Level 1 on the prose literacy scale as compared with 61 percent for the Western region (see Table 2.18). While these differences did not change the overall results of adult education participants on the literacy and numeracy measures, small differences existed across domains and across regions. For example, on the prose literacy scale, 79 percent of adults in the Midwestern region performed at Levels 1 and 2 compared with 89 percent in the Eastern region. These percentages were slightly higher on the numeracy scale. At the other end of the proficiency scale, over 3 percent of adults in the Midwestern region performed at Levels 4 and 5 on the document literacy scale while only half of a percent of learners in the Eastern and Western regions performed at these levels.

## Final Remarks

Results from the AEPS assessment showed that adult education participants performed mostly in Levels 1 and 2 of the proficiency scales. While limited performance levels are to be expected given the nature of the adult education population, evidence that many of these learners perform at the very bottom of the proficiency scales has important implications for the kinds of educational interventions needed to bring their skills up to levels that will help ensure their successful participation in society.

As a group, adult education participants differed in many important aspects, ranging from demographic characteristics (i.e., age, place of birth, and educational background) to their reasons for attending adult education programs. For instance, 43 percent of these adults were non-native born, 44 percent had a mother tongue that was not English, their age ranged from 16 to 65, and 35 percent were of Hispanic background. Table 2.20 provides a profile of adult learners by skill levels on the prose literacy scale, summarizing the demographic and social characteristics of learners within each skill level. The variability within this population has implications for how adult education programs are structured and clearly highlights the challenges programs face in addressing the needs of all learners.

The three types of instruction provided in adult education—ABE, ASE, and ESL—are each designed to meet the needs of a specific portion of the adult learner population. Twenty-one percent of adult learners attended ASE classes and, as might be expected based on their educational backgrounds, this group demonstrated the highest level of performance on the literacy and numeracy scales. Forty-three percent of learners attended ABE classes and demonstrated the second highest level of performance. The lowest level of performance was demonstrated by adults attending ESL classes, a segment of the adult learner population that represented 37 percent of the adult learners. Comparisons both within and across programs can be seen in Table 2.19 which summarizes the demographic and social characteristics of learners in each type of instruction.

Rather than examining literacy in isolation, the influence of reading habits, wealth and health status complemented these analyses. A relationship between reading habits and performance in literacy was found, where adults who read more often and read a larger variety of materials performed significantly better. The data showed that 85 percent of the adult learners received income from traditional sources such as salaries and wages but their performance did not differ from those that depended more on social assistance as a source of income. No strong relationship was found between wealth or health status and performance on the Learner Survey.

In general, the data showed that age, race and ethnicity played a stronger role in literacy than gender. Reading habits were also important. The following chapters will further examine the adult education population by comparing these adult learners with adults in the general population and by exploring the role of testing language for Hispanic adult learners.



# Chapter 3

## Comparing the Adult Learner and General Household Populations

### Introduction and Highlights

As mentioned in the general introduction to this report, the AEPS Learner Survey was designed so that the background characteristics and performance of the adult learner population could be compared with the general adult population in the United States. This is possible because the AEPS used instruments and methodology that emerged from the Adult Literacy and Life Skills Survey (ALL), a large-scale household assessment that examined literacy and numeracy skills in the adult populations of seven countries, including the United States.

Although the ALL and AEPS surveys examined populations of similar ages—adults between the ages of 16 to 65—they differed in other aspects. As a household survey, ALL examined the general adult population by surveying a nationally representative sample of adults to collect information about demographic and social characteristics, educational background, and skill levels in the prose literacy, document literacy, and numeracy domains. In the United States, the ALL results represented 184,260,910 American adults (OECD and Statistics Canada 2005, Appendix B). On the other hand, the AEPS Learner Survey examined a special subpopulation of adults—those enrolled in adult education programs funded under the Adult Education and Family Literacy Act (AEFLA). The AEPS results represented 2,429,531 adults, or only 1.3 percent of the total adult population in the United States.<sup>44</sup> As shown in the previous chapters, the AEPS population included several groups of adult learners:

<sup>44</sup> This represents the weighted coverage of the Learner Survey. This value differs from the population of 2,728,512 mentioned in Chapter 1 which was the weighted sample of participants represented in the Program Survey. The Learner Survey figure is smaller because those learners with very low English-language skills who would not be able to complete the literacy and numeracy tasks were not included in the sample for the Learner Survey.

those that were enrolled in programs to improve their basic skills, those continuing their formal education or obtaining secondary certification, and those that were enrolled in programs to improve their English skills.

This chapter reexamines issues that were discussed in Chapter 2, but adds a dimension to the analysis by comparing and contrasting results from the AEPS with those from the U.S. household sample for the ALL. The first section of this chapter is a general comparison of these two populations. This is followed by a section that compares the two populations in terms of their distributions and performance on the prose literacy, document literacy and numeracy scales. A third section compares the populations based on demographic and social characteristics including gender, age, immigration status, race, ethnicity, and educational attainment. The fourth section of the chapter briefly compares distributions of adults across groups based on reading engagement, wealth, and health—three issues that were introduced and examined in Chapter 2. Finally, the chapter presents a profile that summarizes the two populations on a set of selected characteristics.

## Key Findings

### Literacy and Numeracy Skills

- Differences in performance were found between adult learners and the general adult population on all three proficiency scales. While 44 percent of adult learners in the AEPS population performed at the lowest level on the document literacy scale, only 20 percent of adults in the ALL population performed at that level. Similar differences existed in the other two domains, with the largest differences found on the numeracy scale.

### Gender, Age and Skills

- For both the learner and general adult populations, overall performance and the percentages of adults performing at each skill level were similar across gender groups. Larger gender differences were observed in terms of labor market outcomes including participation rates and salaries, even for adults within the same educational level.
- Forty-six points separated the average performance of the youngest and oldest groups on the document literacy scale in the AEPS population—this difference was only 21 points in the ALL population. A negative relationship between performance and age existed for both populations. This was particularly clear for the AEPS population where there were larger proportions of older adults performing at Level 1, with the opposite true for Levels 2 and 3. Within levels, the ALL population showed a more uniform distribution of learners by age groups.

### Race/Ethnicity, Place of Birth and Skills

- The percentages of Hispanic and Black adults in the AEPS population were larger than those in the ALL population—24 percent more Hispanic and 9 percent more Black adult learners. The average performance of Hispanic adult learners in the AEPS was 19 to 26 points less than the average performance of the general population of Hispanic adults in the ALL population. White adult learners represented the majority of adults in both populations, but the average performance of those in the AEPS

sample ranged from 48 to 61 points below that of White adults in the general population.

- Native-born adults represented 83 percent of the ALL population with only 16 percent scoring at Level 1 on the document literacy scale. In contrast, the AEPS population was comprised of a smaller percentage of native-born adults (57 percent) with a larger percentage of these learners scoring at Level 1 on the document literacy scale (26 percent). This finding was consistent for non-native adults, where 41 percent of the non-native ALL adults, as compared with 69 percent of the non-native AEPS adult learners, performed at Level 1 on the document literacy scale.
- In both populations, performance differences between adults in the top and bottom percentiles were wider for non-native learners in all three scales. The largest differences were 166 points in prose literacy for non-native adults in the AEPS population and 171 points in numeracy for non-native adults in the ALL population.

### Educational Attainment and Skills

- Educational attainment also represented an important difference between the adult learner and household populations. About 90 percent of adults who were enrolled in adult education had not completed high school, compared with 18 percent of those in the general adult population. A positive relationship existed between educational attainment and performance for both groups across all three domains. For example, adults who completed high school performed, on average, higher on the document literacy scale than those who did not complete high school—39 points higher in the ALL population and 30 points higher in the AEPS population.

## General Comparison of the Adult Learner and Household Populations

One would expect the AEPS and ALL populations to differ in a number of important ways based on differing demographics and background characteristics including educational experiences, employment history and status, and general life experiences. While, by definition, the two populations are distinguished by participation in adult education programs, it should be remembered that adults in the general population participate in educational activities as well. The ALL survey collected information about participation in “education and learning activities” and found that 26 percent of adults were enrolled in a program of study to earn a certificate, diploma, or degree.<sup>45</sup> Although for a small part of the general adult population these programs were the same as those attended by adult learners, the data suggest that these two populations participated in educational activities for different reasons. Less than five percent of adults in the general population reported that they participated in educational activities to earn a high school diploma and only two percent enrolled to earn a GED or equivalent certificate. In comparison, 44 percent of adult learners reported that they attended adult education programs to earn a high school diploma, 39 percent to get a better job, and 37 percent to develop English language skills by attending English as a Second Language (ESL) classes. Twenty-one percent of adults from the general

<sup>45</sup> A program of study was defined in the ALL survey as “a collection of courses that leads to a specific certificate, diploma or degree” (ALL Questionnaire, question F2).

population who attended programs of study mentioned that they were for job or career-related reasons.<sup>46</sup> In the adult learner population, only 8 percent of learners attended adult education programs as requirements for their current job.

Other differences between the AEPS adult learner population and general adult population include the following:

- The AEPS population was younger. Compared with the general adult population, there were 17 percent more adults in adult education programs who were aged 16 to 25 and 19 percent fewer adult learners who were older than age 45.
- The adult learner population was more ethnically diverse. There were 17 percent fewer White, 9 percent more Black, and 24 percent more Hispanic adult learners.
- Immigrants were highly represented in the population of adult learners, with 28 percent more adult learners reporting that they were born outside the United States. As a consequence, 31 percent more adult learners reported a mother tongue other than English.
- Adults in the general population showed higher levels of educational attainment. Approximately 40 percent more adults in the general population completed high school and 30 percent more adults completed postsecondary education.
- Higher unemployment rates were reported in the population of adult learners. A quarter more adult learners reported that they were unemployed or looking for work.
- The general adult population read newspapers more frequently. Twelve percent more adult learners reported that they “rarely” or “never read a newspaper.”

These comparisons show clearly that adults participating in federally sponsored adult education programs represent a more diverse and disadvantaged population in terms of age, race/ethnicity, place of birth, and educational attainment than those in the household survey. Recognizing that these differences exist provides a helpful context in which to compare the performance of adult learners with the general adult population.

## Comparing Literacy and Numeracy Distributions

Chapter 2 introduced the prose literacy, document literacy, and numeracy domains, each of which is described independently on a continuous proficiency scale ranging from 0 to 500 points. The first panel of Figure 3.1 illustrates the distribution of scores along these three scales for the AEPS and ALL populations. The length of the bars illustrates the performance gap between the highest and the lowest achieving groups in each distribution from a relative perspective (i.e., the 10th and 90th percentiles).<sup>47</sup> The narrow boxes in the middle of the bars represent the average scores and their confidence intervals. This figure shows the wide variation in performance between adults in the top and bottom percentiles across scales (see also Table 3.1). These gaps provide a measure of inequality of outcomes for these populations, which are not consistent across domains. The performance gaps between

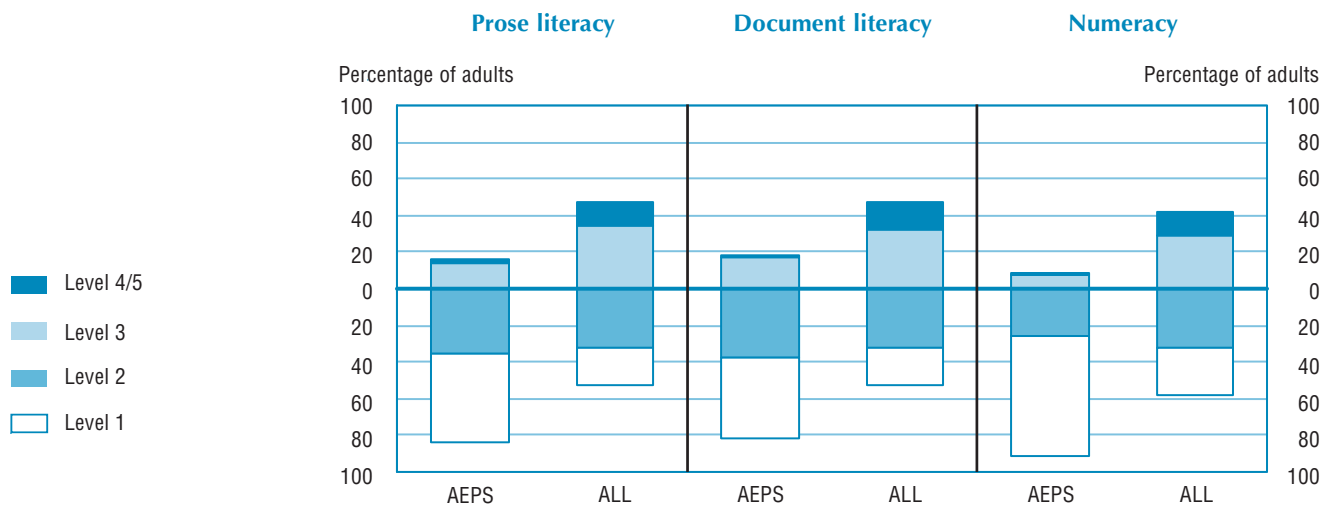
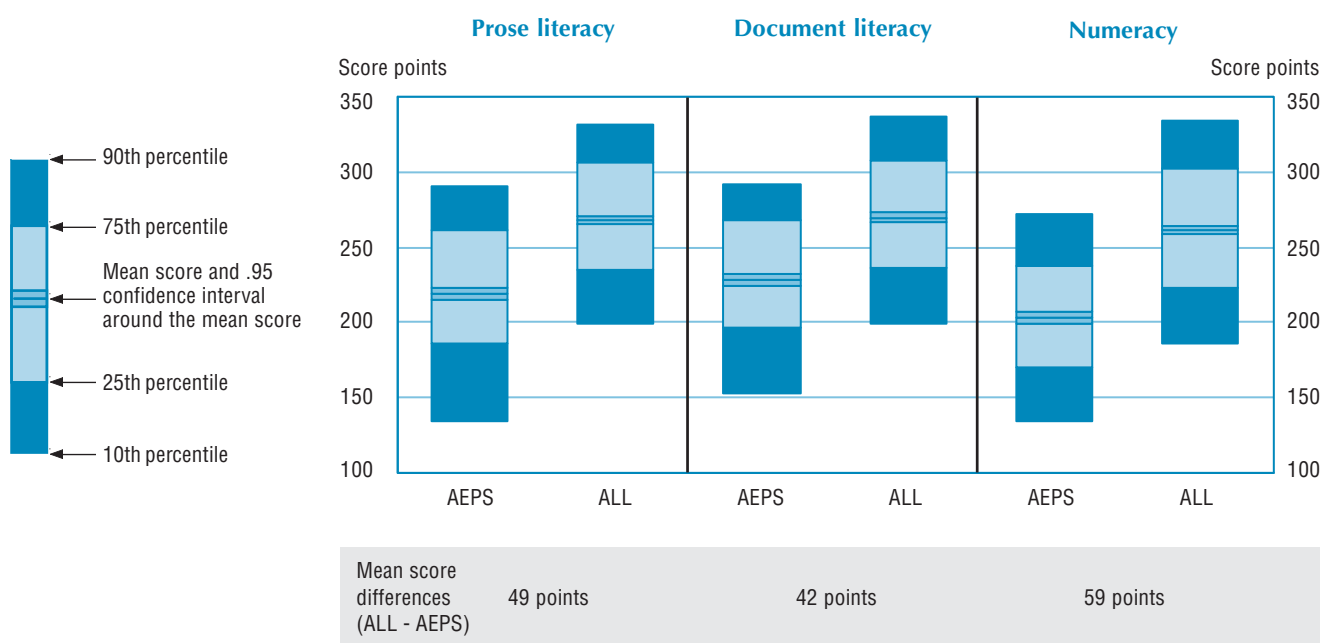
<sup>46</sup> There was a high percentage of missing data for this question with a 74.1 percent nonresponse rate.

<sup>47</sup> See Appendix A1 for the definition of a percentile.

the two populations were approximately equal on the document literacy scale, while the gap for the AEPS population was 24 points wider on the prose literacy scale and 10 points narrower on the numeracy scale—gaps that were still equivalent to 2.6 standard deviations. The fact that prose literacy showed the widest performance gap is most likely related to characteristics of that domain. Prose literacy requires a higher knowledge of language structure, including grammar, syntax, text schemas and prosodic elements. Thus, these results could reflect the larger percentages of non-native adult learners in the AEPS population who had a mother tongue other than English.

**Figure 3.1**

**Skills on the prose literacy, document literacy and numeracy scales, ALL and AEPS**



The better performance of adults in the ALL population is also visible by the higher positioning of their distribution bars, and particularly their mean scores. The general adult population performed higher than the population of adult learners by 42 points on the document literacy scale, 49 points on the prose literacy scale, and 59 points on the numeracy scale.

The literacy and numeracy scales are divided into five skill levels that reflect the progression of skills and strategies required to successfully complete tasks at each level. Level 1 represents the most basic tasks and lowest proficiency while Level 5 represents the most sophisticated tasks and the highest proficiency. A full description of task characteristics at each level is presented in Table II.1 in the introduction to Part II of this report. The second panel of Figure 3.1 presents the percentages of adults and adult learners that performed at each skill level, shown in a stacked form. As discussed in Chapter 2, Level 3 reflects the minimum set of skills that are judged to be needed in today's society (Sum, Kirsch, and Taggart 2002). Therefore the horizontal axis in the figure is positioned between Levels 2 and 3 to represent the baseline for minimum skills and facilitate inferences about low versus high performance.

Differences in the percentages of adults performing at each skill level were large for both populations. Overall, Levels 2 and 3 were where the highest proportion of the general population of adults performed. In contrast, the highest proportion of learners in the AEPS population performed in Levels 1 and 2. Across all three scales, the AEPS population had more than double the percentage of adults who performed at Level 1.

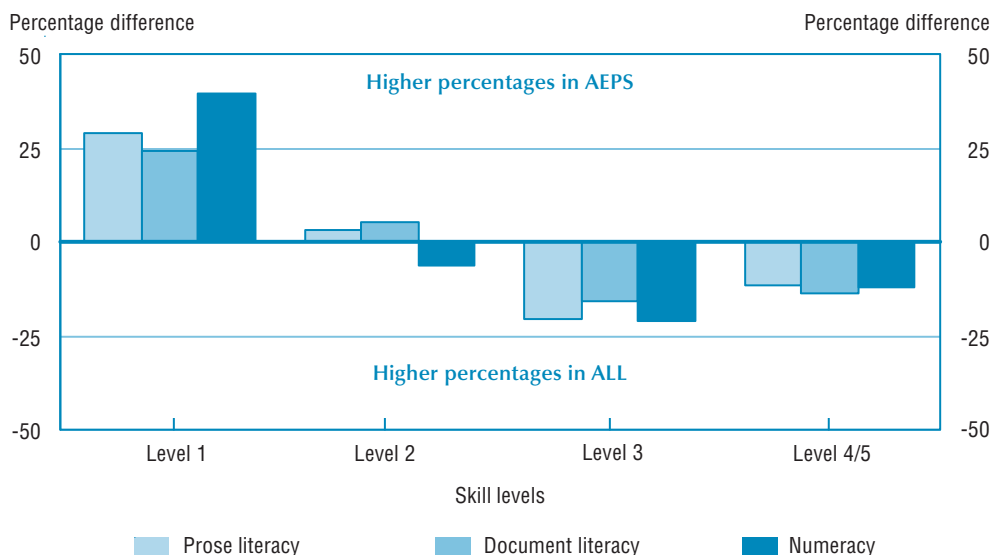
On the prose and document literacy scales 53 percent of the ALL population performed at Levels 1 and 2, while the same was true for over 80 percent of learners in the AEPS population. In numeracy, this difference was even larger with over 90 percent of learners in the AEPS not performing beyond skill Level 2 as compared with 59 percent in the ALL population. Thus, overall, about 1 in 2 adults in the general population and 4 in 5 adults in the AEPS population performed below Level 3.

Looking at performance at or above the Level 3 threshold, overall, a larger percentage of adults in the ALL population performed at these levels. Twice as many adults in the general population performed at Level 3 on the prose and document literacy scales as adults in the AEPS population. In numeracy, that gap almost doubled to a fourfold difference, with 29 percent of adults in the general population performing at Level 3 compared with 8 percent of the AEPS adult learners. This same performance gap was also found at the highest skill levels. While between 13 and 15 percent of adults in the general population performed at Levels 4 and 5, less than 2 percent of the AEPS adults did so.

In prose literacy and numeracy, the average performance of the AEPS adults was at Level 1, while they performed, on average, at low Level 2 in document literacy. In the ALL population, average scores in all three scales were in upper Level 2. Figure 3.2 identifies differences in the percentages of adults performing at each skill level for these two populations. The differences for Level 1 clearly illustrate the relatively lower performance of adult learners: between 24 percent more adults from the AEPS population on the document literacy scale and 40 percent more adult learners on the numeracy scale performed at Level 1 on these scales. The higher performance of adults in the ALL population is shown in the upper skill levels.

Figure 3.2

## Changes in distributions of skills levels, AEPS and ALL



The average performance differences between adults in the general population and adult learners, associated with the fact that so many more AEPS learners performed in the lowest skill levels when compared with the ALL population, may be viewed as positive findings within the context of adult education. These data could be interpreted as indicating that adult education programs are, in fact, reaching the population of adults most in need of educational services. The fact that these learners have enrolled in adult education programs reflects their own awareness of the need to develop skills or obtain further certification.

The three proficiency scales represent different domains and, therefore, are not directly comparable. That is, performing at 250 on the prose scale does not represent the same level of knowledge and skill as performing at 250 on the document or numeracy scales. Some differences are reflected in the descriptions of tasks associated with each level on each of the three scales (see Table II.1 for a full description of each level). However, the distribution of adults across scales and levels provides an indirect means of estimating difficulty across domains. Overall, adults had more difficulties with numeracy-related tasks. For instance, while 20 percent of adults in the ALL population performed at Level 1 on the prose and document literacy scales, 27 percent performed at Level 1 on the numeracy scale. This trend also held for the AEPS population. The largest percentage difference was found between the document literacy and numeracy scales with 22 percent more adult learners performing at Level 1 on the numeracy scale compared to the document literacy scale. Across the two literacy domains, slightly more adult learners performed at Levels 1 and 2 on the prose literacy scale than on the document literacy scale.

## Comparing Background Characteristics

Performance differences between learners from majority and minority populations have been repeatedly examined in educational data. These differences are often consequences of socioeconomic and educational inequalities that are reflected in many aspects of adults' lives. This section relates the overall performance of adults with a number of important background and demographic characteristics.

A few points about the characteristics of these adults should be restated before examining these relationships. While the AEPS and ALL household samples both covered adults ranging in age between 16 and 65 years, they differed in a number of important characteristics as mentioned earlier in this chapter. AEPS adults reported that they enrolled in adult education programs for a variety of reasons. Often, they enrolled because they were unable to finish their secondary education and wanted to earn a certificate or diploma. In other cases, they enrolled in adult education programs as a result of an incompatibility between their skills and the skills required by the labor market. Another common reason was a lack of English skills resulting from immigration from non-English speaking countries. Regardless, this diverse context is important to consider as it most likely affected the results found in the survey data.

### Gender and Skills

Gender equality has become an essential characteristic and an objective of many educational systems. This concept has been expanded from education to labor markets, where large gender gaps still exist. This section compares gender differences in skill levels and background characteristics for the general population in the ALL survey and the adult learners in the AEPS Learner Survey.

Chapter 2 explored gaps in literacy and numeracy skills between adult males and females for the Learner Survey and showed that gender differences for any of the three scales were quite small. These same results were found for the ALL survey in prose and document literacy, while on the numeracy scale males had an average score that was 16 points higher than females.

Differences between males and females within the ALL and AEPS populations were very small. However, much larger differences were found within gender across populations, due to the overall higher performance of the ALL population. The smallest differences were found in document literacy, with males in the ALL population performing 43 points higher than AEPS males, and females in the ALL population performing 40 points higher than AEPS females. The largest differences existed in numeracy where males in the ALL population performed 64 points higher than AEPS males and females in the ALL population performed 52 points higher than AEPS females (see Table 3.2).

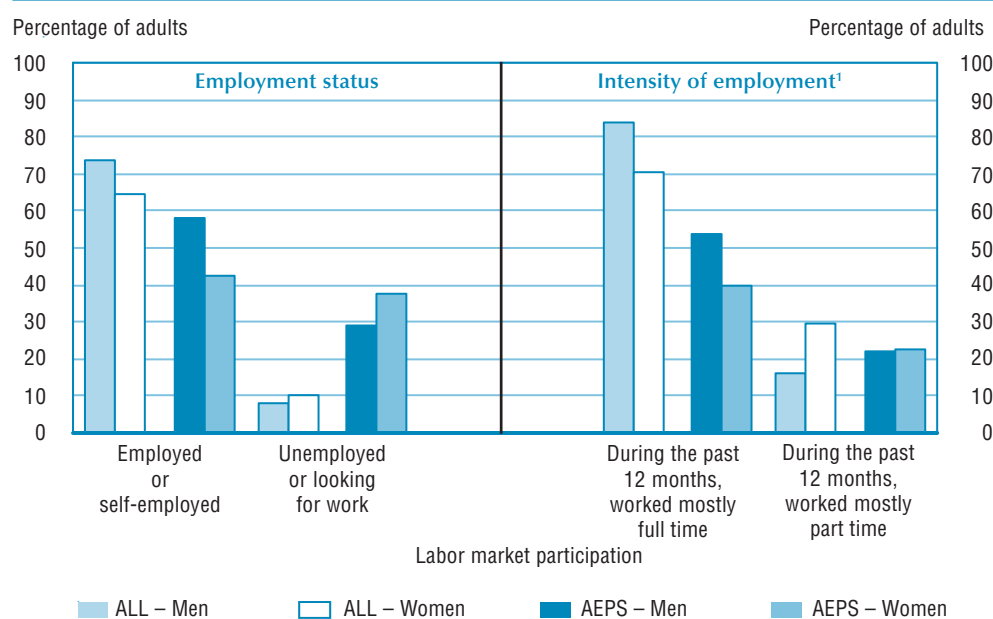
The limited gender differences in performance for these adult populations does not mean there were no gender-related differences found in other areas of the two surveys. Figure 3.3 shows aspects of labor market participation for males and females in both populations. As the figure demonstrates, gender differences in employment status were larger between populations than within populations. As a result of characteristics of the AEPS population, employment rates were higher in the ALL population, with 16 percent more males and 23 percent more females reporting that they were employed. Gender differences in the intensity of employment were also larger between the two populations. Fourteen percent more males than females in each population reported that they held full-time employment during the

year prior to the survey. On the other hand, within gender, 30 percent more males and 30 percent more females from the ALL population reported that they held full-time employment during that period.

These differences in status and intensity of employment were found in a context where males and females reported similar reasons for attending adult education programs. In the AEPS population, 39 percent of both males and females attended these programs to obtain a better job, and 9 percent of males and 6 percent of females attended because classes were required for their current job. Eleven percent more AEPS females than males reported they were attending adult education programs to help their children with their homework.

Figure 3.3

## Gender and labor force participation, AEPS and ALL

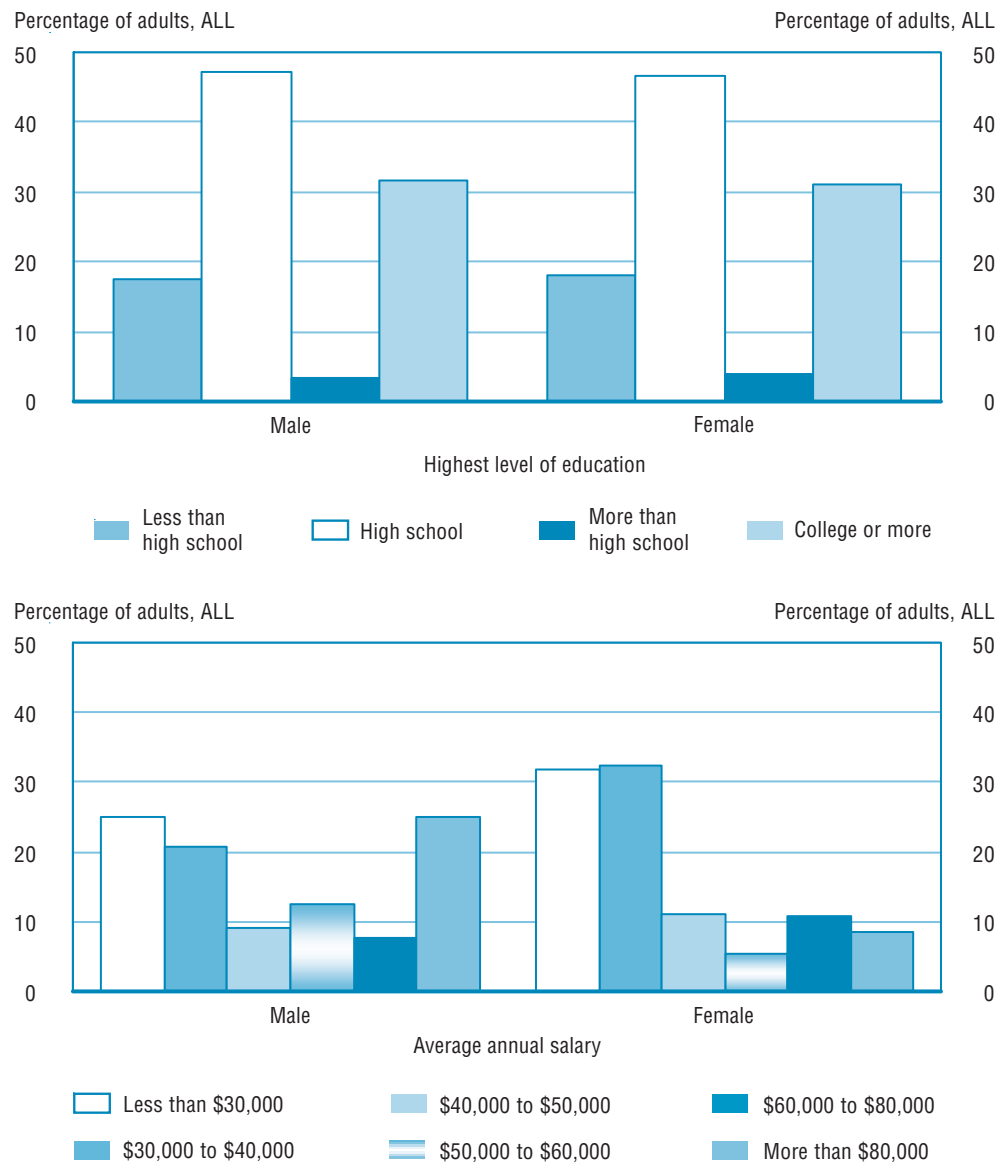


1. Missing AEPS data: For full-time and part-time employment missing data reached 23.2 percent for men and 36.7 percent for women.

Gender differences in annual income represent another aspect that is often emphasized by research and frequently covered by the media. It is often noted that wages or salaries tend to be correlated with educational attainment. The first panel of Figure 3.4 shows that males and females in ALL did not differ in educational attainment, with less than one percent difference across all levels of education. Despite this, there were large gender differences in reported personal income. The second panel of Figure 3.4 shows there were larger percentages of males who reported receiving higher salaries while more females reported receiving lower salaries. For example, 18 percent more females reported an annual income of up to \$40,000 while 16 percent more males reported an annual income higher than \$80,000. As these findings are general and isolated, they should again be interpreted with care as they examine isolated variables and are not based on analytical models that simultaneously consider demographics, labor force characteristics, and economics.

**Figure 3.4**

**Gender, educational attainment and average annual salary, ALL**



The direct causes of gender differences are complex and are likely to be related to a combination of reasons ranging from social and labor market characteristics to particular family expectations. The purpose of this section was to highlight the small gender differences in performance and educational attainment for these two populations of adults, but also note that gender differences existed in other areas.

## Age and Skills

The wide range of ages represented in the adult population complicate the relationship between age and performance. Additional aspects also impact this relationship, including demographic characteristics (e.g., educational and professional paths) as well as physiological characteristics (e.g., cognitive development and aging). This section examines a range of age groups that include adults between the ages of:

- 16 to 25 (38 percent of the AEPS population and 21 percent of the ALL population)
- 26 to 35 (25 percent of the AEPS population and 21 percent of the ALL population)
- 36 to 45 (19 percent of the AEPS population and 24 percent of the ALL population)
- 46 to 55 (11 percent of the AEPS population and 21 percent of the ALL population); and
- 56 to 65 (4 percent of the AEPS population and 14 percent of the ALL population).<sup>48</sup>

Overall, the AEPS population was younger than the adult population in the ALL. While over a third of the AEPS learners were ages 25 or younger, only 21 percent of adults in the ALL population were in this age range. Consequently, the opposite was true for older age groups where 35 percent of adults in the general population were ages 46 or older while in the adult learner population less than half that percentage fell into that age category. This difference might relate to the fact that the 46 and older age group is comprised of adults who are likely to be in stable work situations or preparing for retirement, and are expected to have already acquired the skills necessary for the current labor market. However, the 15 percent of adults over the age of 46 who are attending adult education programs may be doing so for a number of reasons. Demographic changes also seem to be playing a role as approximately half of these adults over age 46 are enrolled in ESL classes while one-third are enrolled in Adult Basic Education (ABE).

The relationship between age and performance was not consistent across populations. A negative relationship existed for the AEPS population with two large differences in performance noted for the second youngest and oldest age groups (see Table 3.3). A difference of 21 points on the prose literacy scale was found between the first and the second age groups (i.e., between ages 16 to 25 and 26 to 35) and a similar difference of 27 points was found between the two oldest groups (i.e., ages 46 to 55 and 56 to 65). Similar findings occurred on the document literacy and numeracy scales. Within the ALL population, performance was more consistent across age groups showing a decrease in performance only between the two oldest groups: from 10 points in prose literacy to 14 points in document literacy.

The gaps in performance between adults in the top and bottom percentiles varied both within and across populations. Within populations, these gaps increased with age showing a wider variability in performance for older groups. In the AEPS population, the difference in performance gaps between age groups was largest in prose literacy where the gap for the oldest group was 44 points wider than the gap for the youngest group of adult learners. This relationship also existed for the ALL

<sup>48</sup> Chapter 2 used different age categories that met the needs of OVAE: 16 to 18, 19 to 24, 25 to 44, 45 to 59, and 60 or older. The age categories used in this chapter were selected to ensure comparability between the AEPS and ALL data.

population but with a smaller difference of 13 points on the prose literacy scale for the same two groups of adults (see Table 3.3). Across populations, more variability in performance was found for adult learners in the AEPS population for every age group. For example, the gap in performance for adults between ages 46 to 55 was 38 points wider for the population of adult learners.

Figure 3.5 shows distributions of learners across skill levels and age groups. Each panel represents a scale. Results for the general population of adults (i.e., ALL) are presented to the left side of the vertical axis, while the results for adults in AEPS are presented to the right side of the vertical axis.

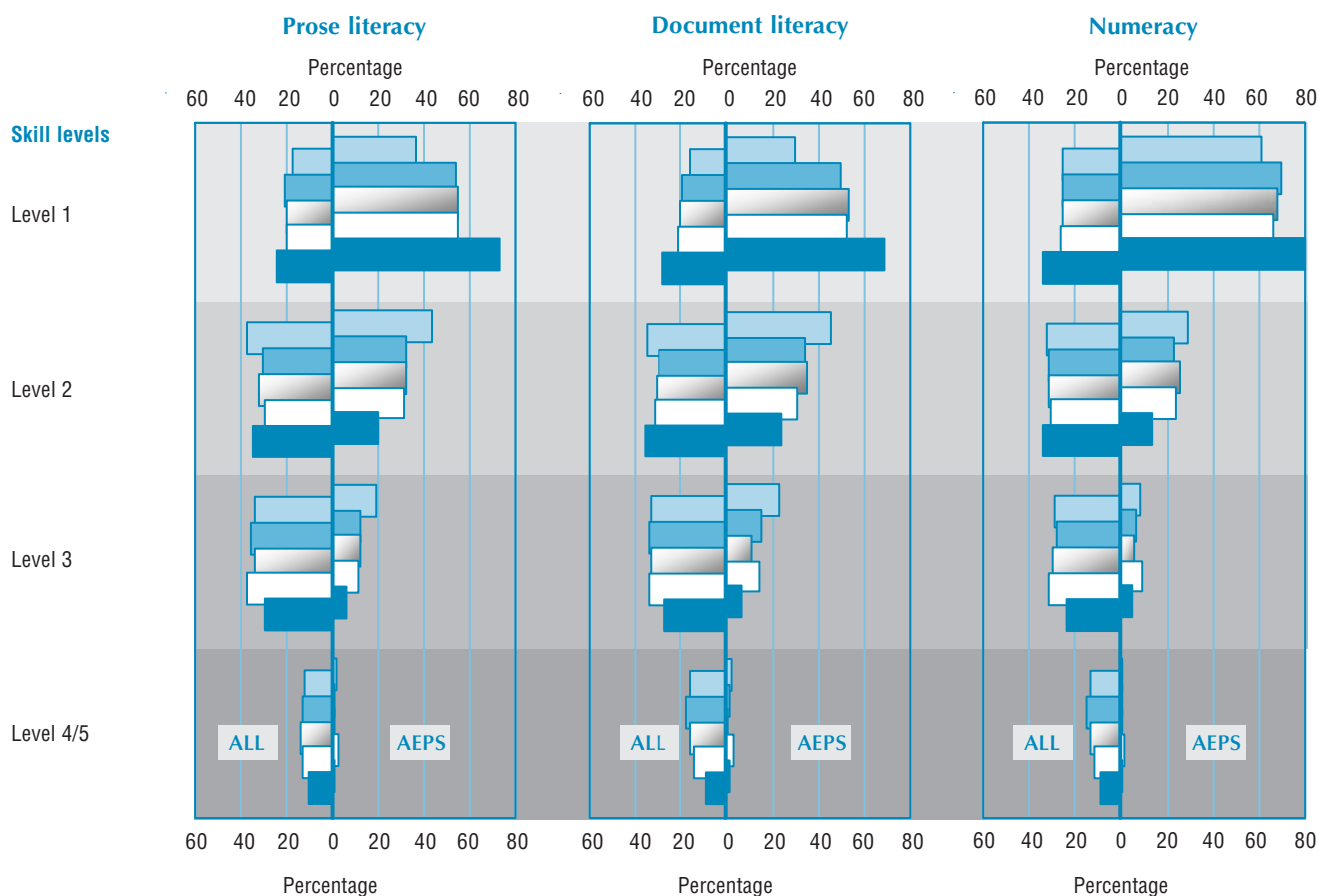
The percentages of adults performing in each of the age groups were more similar in ALL (e.g., smaller differences among the lengths of the bars within each level) than in AEPS. The negative relationship between performance and age was more apparent in AEPS. There were larger percentages of older adults performing at lower levels of skills, with slightly larger percentage of adults from younger groups performing at Levels 2 and 3. However, the average lower performance of the AEPS population needs to be considered when interpreting these results also. This relationship remained in ALL for lower levels of skills and differed in higher levels—smaller percentages of adults from both the youngest (i.e., 16 to 25) and oldest (i.e., 56 to 65) age groups performed at Levels 4 and 5.

Some conclusions can be drawn from these relationships. First, the negative relationship between age and performance is consistent with findings from previous studies of adults (i.e., IALS, ALL, and NAAL; NCES 2005; OECD and Statistics Canada 2000, 2005). Explanations of these previous findings have included (a) the effects of aging on the cognitive performance of older adults, (b) younger adults having received more recent and extended schooling, and (c) the finding that fluid intelligence may decrease with age causing older adults to have more difficulties in dealing with complex tasks (Douchemane and Fontaine 2003; OECD and Statistics Canada 2000, 2005). Second, the larger performance variation for older age groups may be related to the “accumulation of differing life experiences” in association with demographic characteristics of the AEPS population (OECD and Statistics Canada 2005, 43). Among these characteristics, those that are related to immigration could be having a stronger influence on performance in the AEPS population. For example, the AEPS population has three times more non-native adults whose mother tongue was not English.

These findings are, by themselves, important as adult education programs are reaching segments of the adult population, particularly younger learners, most in need of education credentials and English language and literacy skills. The acquisition of such skills may contribute to additional opportunities including jobs with better pay and further opportunities for ongoing training and advancement. Access to these types of jobs and their associated benefits will become increasingly more challenging and more important in today’s labor market.

Figure 3.5

Age and skills on the prose literacy, document literacy and numeracy scales, ALL and AEPS



| Age groups           | 16 to 25 | 26 to 35 | 36 to 45 | 46 to 55 | 56 to 65 |
|----------------------|----------|----------|----------|----------|----------|
| Percentage of adults | 21.0%    | 20.9%    | 23.5%    | 21.0%    | 13.7%    |
|                      | ALL      | AEPS     | ALL      | AEPS     | ALL      |
|                      | 21.0%    | 37.9%    | 25.0%    | 19.3%    | 11.1%    |
|                      |          |          |          |          | 4.3%     |

### Skills and the Role of Race, Ethnicity, Place of Birth, and Language

Immigration has been receiving the increased attention of governments and policy makers because it is one of the demographic trends having a significant impact on American society (Sum, Kirsch and Yamamoto 2004a). Immigration was responsible for 21 percent of the population growth in the United States during the 1980s, a figure that increased to 31 percent during the 1990s and is expected to be more than 50 percent throughout the remainder of this decade and into the next. The language and educational backgrounds associated with this immigrant population help to define the need for adult education programs now and into the future. For example, one-third of immigrants who were living in the United States in 2004 lacked a high school diploma.

Immigrants are by definition a diverse group. Some segment of the immigrant population comes to the United States with a high level of education that meets the needs of our information- and technology-based society. On the other hand, many of the adults who immigrate into the United States do so with low levels of education and little or no knowledge of English, coming from developing or non-English speaking countries.

Adult education programs play an important role in addressing the needs of the latter group of immigrants and the data clearly show their involvement in adult education. Compared with the general adult population, the AEPS population has 28 percent more non-native adults, 31 percent more adults who did not learn English as their mother tongue, 17 percent fewer White adults, 24 percent more Hispanic adults, and 9 percent more Black adults (see first panel of Figure 3.6). Adults in the AEPS population from each of these groups performed, on average, lower than similar groups in the ALL population. This was also true for White adults, as White adults in the ALL population performed on average at Level 3 on the prose and document literacy scales while White adult learners performed on average at the low end of Level 2.

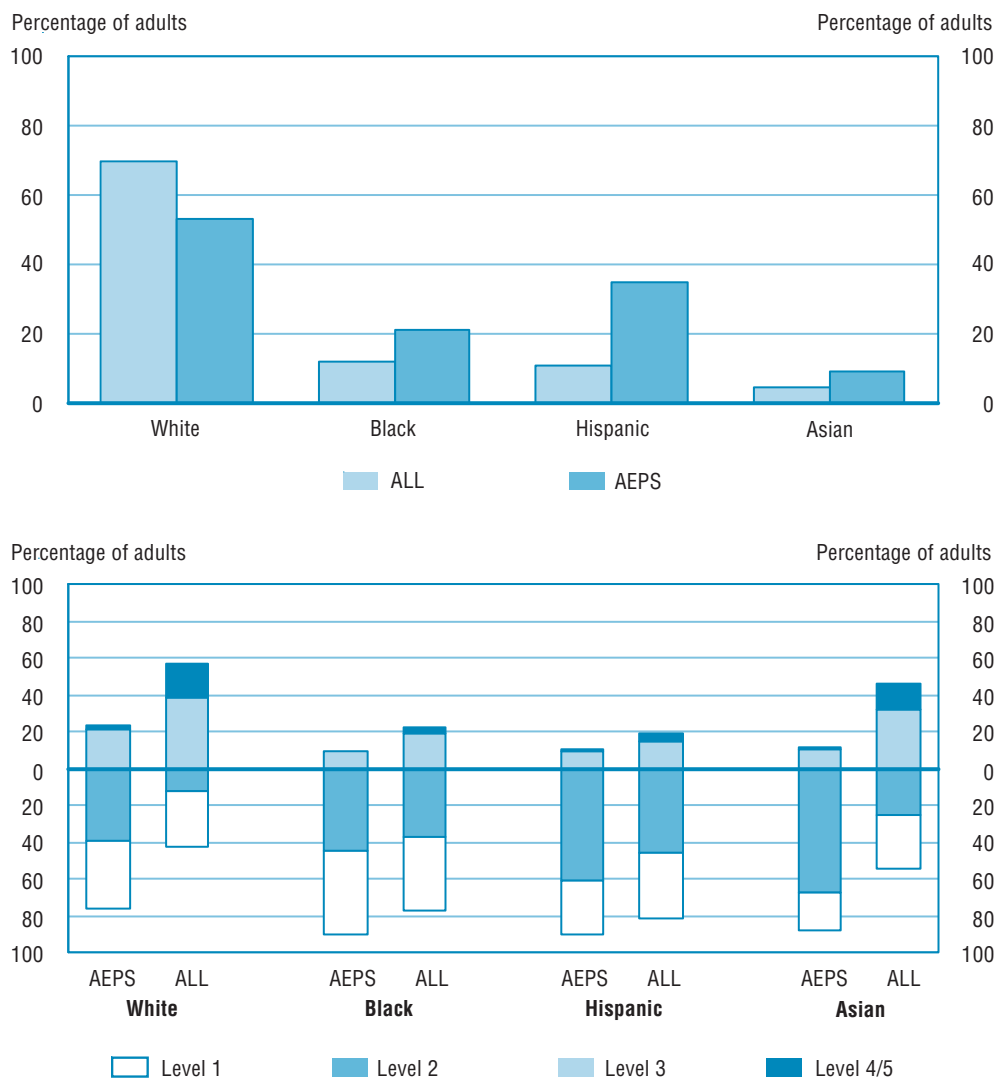
Hispanic adults represented only 11 percent of the general adult population with approximately half performing at Level 1 on the prose and document literacy scales; an even larger percentage performed at that level on the numeracy scale. Similar patterns were found for Black adults where approximately one-third performed at Level 1 on the prose and document literacy scales. With such large percentages of adults in the general population performing at such a low level, it is not surprising that higher percentages of low performing adults were enrolled in adult education programs. Thirty-five percent of the AEPS participants were Hispanic, of which 61 percent performed at Level 1 on the document literacy scale, with even greater percentages in Level 1 in both prose literacy and numeracy. Twenty-one percent of adult learners were Black, of which 45 percent performed at Level 1 on the document literacy scale, a percentage that reached 84 percent on the numeracy scale (see second panel of Figure 3.6 and Table 3.4).

The disparities in performance between minority and majority groups of adults are of particular concern. These were more apparent in the ALL population, where 6 times more Whites than Blacks and 5 times more Whites than Hispanics performed at Levels 4 and 5 on the prose literacy scale. In the AEPS population, there were 3 times more Whites than Blacks and twice as many Whites as Hispanics performing at these high skill levels. Such differences were also evident at the low end of the scales. In the AEPS population, performance differences across race/ethnicity groups may be consequences of the overall lower levels of educational attainment.

The Asian population of adult learners performed lower than the other racial groups. The reasons for this seem again to be associated with language and immigration. Ninety-seven percent of the Asian adults who participated in adult education programs in 2001 were born in a foreign country. Of these, approximately half had been in the United States for less than 5 years. In addition, 26 percent completed high school and 32 percent completed some education beyond high school before immigrating to the United States (see the AEPS database).

Figure 3.6

### Race/ethnicity and skills on the document literacy scale, AEPS and ALL

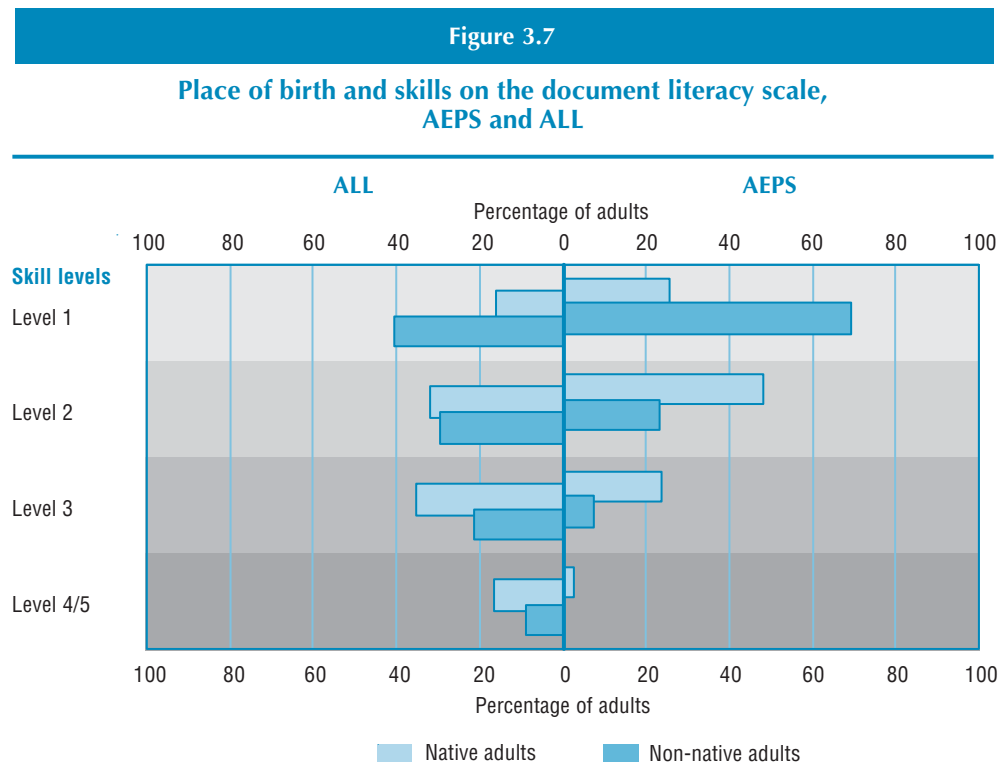


Place of birth was another characteristic addressed in both the ALL and AEPS surveys. Fourteen percent of adults in the general population were not native to the United States; compared with 43 percent non-native adults in the AEPS population. While non-native adults in both populations performed, on average, lower than native adults, differences in average performance were greater from numeracy to document literacy to prose literacy. Differences in average performance on the numeracy scale were about the same for both populations—29 points for the ALL population and 30 points for the AEPS population with native adults performing higher on both scales. There were larger differences on the prose literacy scale. Table 3.5 shows that among ALL participants, the difference in average performance on the prose literacy scale between native and non-native adults was 42 points while among adult learners from the AEPS population the difference was 62 points. In document literacy, these differences were 36 points in the ALL population and 52 points in the AEPS population.

The difference in the performance of adults in the top and bottom percentiles was also wider for non-native adults in both groups and in all scales. As might be expected, the difference in performance gaps between non-native and native adults was narrowest on the numeracy scale where the performance gaps for the middle 80 percent of non-native adults were wider by 25 points in the AEPS population and 29 points in the ALL population. On the prose literacy scale, non-native adult learners in the AEPS population had a performance gap that was 61 points wider than the gap of native learners. The same occurred in the ALL population but with only a 36 point gap on the same scale. Besides the higher variability in the performance of adult learners, the interaction between language and domain seemed to be playing an important role in widening the distribution of performance of non-native learners.

Figure 3.7 shows the distributions of adults across skill levels on the document literacy scale by place of birth. The ALL population is shown to the left of the vertical axis while the AEPS population is shown to the right; native adults are identified by light blue bars and non-native adults are identified by dark blue bars. Across skill levels, the findings for the ALL and AEPS populations were consistent. There were larger percentages of non-native adults performing at Level 1, while the opposite occurred in Levels 2 to 5. Across populations, the performance disadvantage of non-native adults in the AEPS population was clearer with approximately 30 percent more non-native adult learners from the AEPS population performing at Level 1 in all three domains. As for native adults, there were only 10 percent more native adult learners performing at Level 1 on the document literacy scale, 15 percent more on the prose literacy, and 37 percent more on the numeracy scale (see Table 3.5).

The influence of mother tongue was similar to the results found for place of birth with lower average performance found for adults who reported a mother tongue that was not English (see Table 3.6). Mother tongue had a stronger influence on performance in the two literacy scales than in numeracy.

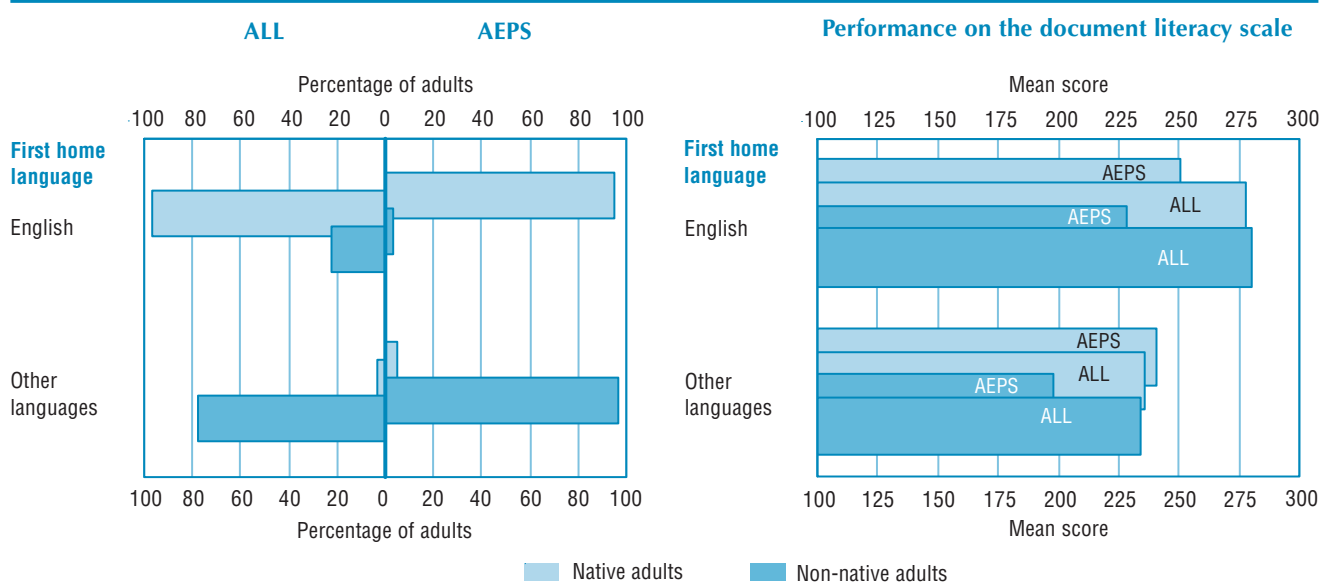


The impact of place of birth and mother tongue is even more evident when these characteristics are examined simultaneously (see Table 3.7). While the percentage of adults who were non-native but learned English as their mother tongue was 22 percent in the general population, they represented only 3 percent of the adult learner population. Thus the data suggests that most non-native adult learners who attend adult education programs do so to improve English skills, with 85 percent of these learners enrolled in ESL instruction.

Figure 3.8 illustrates the relationship between place of birth and first home language, or mother tongue. Consistent with the previous figure, light blue bars represent native adults and dark blue bars represent non-native adults in each population. The relationship between place of birth and mother tongue changes when these are interpreted simultaneously. Within the ALL population, there were no differences in performance on the document literacy scale between native and non-native adults who spoke English as their mother tongue. This difference was 23 points on the document literacy scale in the AEPS population. A similar relationship existed for adults whose mother tongue was not English. These findings perhaps result because non-native adults in the general population might include: adults who immigrated from other English-speaking countries or spoke English with the same fluency as native learners, adults who had been in the United States for a significant length of time and had developed their English language skills or adults who came to the United States with employment opportunities which required adequate English skills. In contrast, non-native adult learners whose mother tongue was not English could include those adult learners who had not been in the United States long enough to learn English, or had been in the United States for some time but in a non-English-speaking environment (e.g., Hispanic adults who live in regions of the United States where Spanish is widely spoken).

Figure 3.8

### Place of birth, first home language and skills on the document literacy scale, AEPS and ALL



## Educational Attainment and Skills

Table 3.8 shows the distribution and average performance of adults from the ALL and the AEPS populations by levels of educational attainment. As would be expected, adult learners, on average, had lower levels of educational attainment. Ninety percent of adults in the AEPS population did not complete high school in the United States. In comparison, only 18 percent of adults in the ALL population did not complete high school, almost half completed high school and almost a third completed postsecondary education. For both the ALL and AEPS populations, the higher performance of adults who had a high school education or more is evident by the fact that fewer of these more educated adults performed in the lowest literacy level, Level 1.

The number of ALL adults who completed high school was 29 percent higher than those adults who did not complete high school (18 percent did not complete high school versus 47 percent who did complete it). This difference was also reflected in average performance which increased from 223 points on the prose literacy scale for adults who had not completed high school to 266 points for those who had completed high school, with a similar difference on the document literacy and numeracy scales. For the AEPS population, a similar, although somewhat smaller difference in average performance was found across all three scales, with those who had completed high school performing higher than those who had not (see Table 3.8).

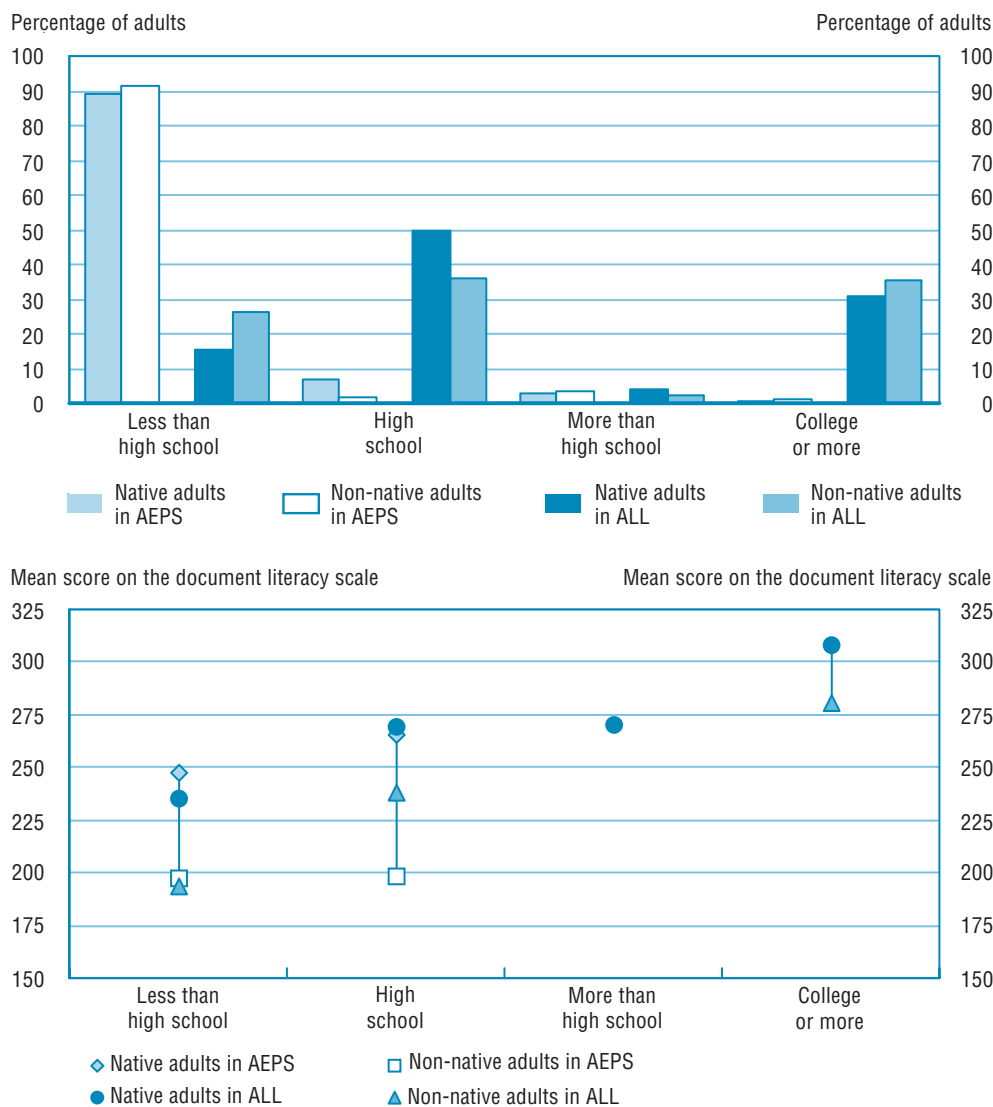
The better performance of adults with higher levels of educational attainment is not surprising based on results from previous studies. The fact that literacy and numeracy are considered school-based domains also helps to explain these differences.

As seen in Chapter 2, educational attainment cannot be examined as an isolated variable because of variability in the characteristics of these populations, particularly their place of birth. Place of birth influences where an adult completed his or her education and helps to isolate the influence of language from that of skill. Many immigrants completed some education in their own country before immigrating but they may not be able to apply those skills in their current environment because of language difficulties. As previously shown, 43 percent of adult learners from the AEPS population were non-native, from which 85 percent were enrolled in ESL instruction. Within the ALL population, the percentage of non-native adults was only 14 percent. Thus, this section also examines educational attainment data for native and non-native adults separately. For the ALL population, these data were collected via the following question on the background questionnaire: “*What is the highest level of schooling you have ever completed?*” For the AEPS population, the data for both groups came from the question: “*What is the highest level of schooling you completed in the United States?*”<sup>49</sup> Clearly, these data need to be interpreted with care because of the different ways the question on educational attainment was posed for participants in each study. Data on educational attainment of non-native learners in the AEPS population may not reflect education they completed before immigrating to the United States (see Table 3.9).

<sup>49</sup> This model is different from the model used in Chapter 2, where data for non-native learners were based on their answer to the question, “What was the highest level of education you completed before you first immigrated to the United States?”

Figure 3.9

### Highest level of education and skills on the document literacy scale, AEPS and ALL



A small variability in educational attainment was found between native and non-native adults in the AEPS population. For the most part, AEPS learners—whether native or non-native—reported that they had less than a high school education in the United States (89 and 92 percent). Five percent more native adult learners reported completing high school when compared with non-native adult learners. Differences in educational attainment in the ALL population included 11 percent more non-native adults who did not complete high school, 14 percent more native adults who completed high school, and 5 percent more non-native adults who completed at least college (see Figure 3.9 and Table 3.9).

In both populations, non-native adults performed at lower levels than native adults who had similar levels of educational attainment. The positive relationship between educational attainment and performance remained for the ALL population when examined by place of birth. However, this analysis could not be confirmed for

the adult learners because of small cell sizes, mainly at upper levels of education. Regardless, completion of high school did result in increased performance in all domains, more so for native adults (see Figure 3.9 and Table 3.9).

## Comparing Complex Characteristics of Adults

Chapter 2 introduced the latent class analysis methodology to explore the self-reported status of adults on issues related to reading engagement, wealth, and health. These results are now contrasted with the results found for the ALL population. The latent class analysis methodology was used to identify groups of individuals who share similar characteristics based on their answers to a series of related questions from the AEPS and ALL background questionnaires.

### Literacy and Reading Engagement

The four aspects considered in this variable included (a) the frequency with which learners used a public library or visited a bookstore, (b) how much time they spent each day watching television or videos, (c) the frequency with which they read various printed materials from newspapers, books, magazines, and letters, notes and e-mails, and (d) which parts of the newspaper they read (i.e., news; sports; home, fashion, food or health; editorial page; financial news or stock listings; book, movie or art reviews, or advice columns). Similar to results shown in Figure 2.12 for the AEPS data, Figure 3.10 shows probabilities of responses for both populations: ALL is shown in the first panel and AEPS is shown in the second panel. The four classes are described below.

- **Class 1** represents 49 percent of adults in the general population and 23 percent of adult learners. Adults in this group were frequently engaged with various printed materials, including newspapers, books, magazines, letters, and notes or emails. These adults were likely to read all sections of newspapers, but more so the news (i.e., national, international, regional, and local) and the entertainment sections (i.e., home, fashion, food or health as well as book, movie or art reviews). On the other hand, these learners were less likely to read the financial news and stock listings. Adults in this class are considered highly engaged readers. The first set of bars in Figure 3.10 shows the probabilities that adults in the general population (left panel) and adult learners (right panel) in Class 1 responded in a particular way to a selected set of questions (see the full set of response probabilities for the AEPS data in Table 2.11 and for the ALL data in Table 3.10).
- **Class 2** represents 22 percent of adults in the general population and 28 percent of adult learners. Adults in this group were characterized by a high engagement with newspapers and a moderate engagement with other materials such as books, magazines, letters, notes and emails. Similar to Class 1 learners, they were highly likely to read a newspaper, more so the news section (i.e., national, international, regional, and local) but they were also likely to read the remaining sections, except for the financial news. On the other hand, these adults had lower probabilities than adults in Class 1 of reading other types of materials besides newspapers, and had a higher probability of never using a library or visiting a bookstore. Adults in this class are considered moderately engaged readers. The second set of bars in Figure 3.10 shows the probabilities that adults in the general population (left panel) and adult learners (right panel) in Class 2 responded in a particular way to a selected set of questions (see the full set of response

probabilities for the AEPS data in Table 2.11 and for the ALL data in Table 3.10).

- **Class 3** represents 17 percent of adults in the general population and 27 percent of adult learners. Adults in this group were characterized by a moderate engagement with books, letters, notes or emails and a lower engagement with magazines and newspapers. When reading newspapers, these learners had a moderate likelihood of reading the news (i.e., national, international, regional, and local), sports and entertainment sections (i.e., home, fashion, food, health, and review sections). They were not likely to read the editorial page, financial news, or stock listings. What differentiated them from the Class 2 learners was the lower likelihood of reading any of the listed materials and the much lower probability of reading a newspaper. Adults in this class are considered low engaged readers. The third set of bars in Figure 3.10 shows the probabilities that adults in the general population (left panel) and adult learners (right panel) in Class 3 responded in a particular way to a selected set of questions (see the full set of response probabilities for the AEPS data in Table 2.11 and for the ALL data in Table 3.10).
- **Class 4** represents 12 percent of adults in the general population and 23 percent of participants in adult programs. Adults in this group were not likely to use a library or visit a bookstore. These learners rarely or never read, but when they did, they were slightly more likely to read newspapers than other types of reading materials. When reading newspapers, these learners were moderately likely to read only the news sections (i.e., national, international, regional, and local). Adults in this class are considered the least engaged readers. The fourth set of bars in Figure 3.10 shows the probabilities that adults in the general population (right panel) and adult learners (left panel) in Class 4 responded in a particular way to a selected set of questions (see the full set of response probabilities for the AEPS data in Table 2.11 and for the ALL data in Table 3.10).

Figure 3.10

Classification of reading engagement of adults, ALL and AEPS

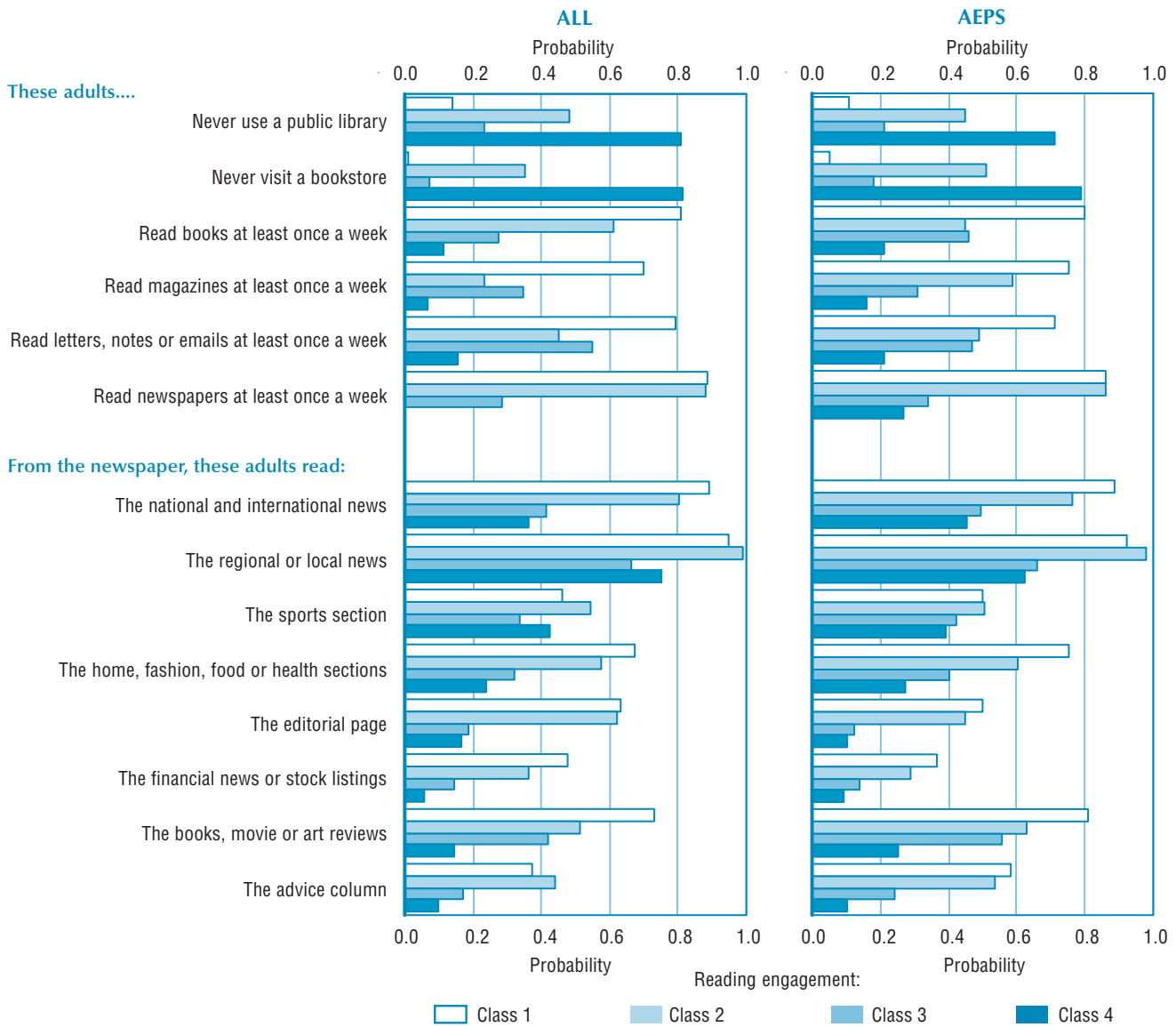
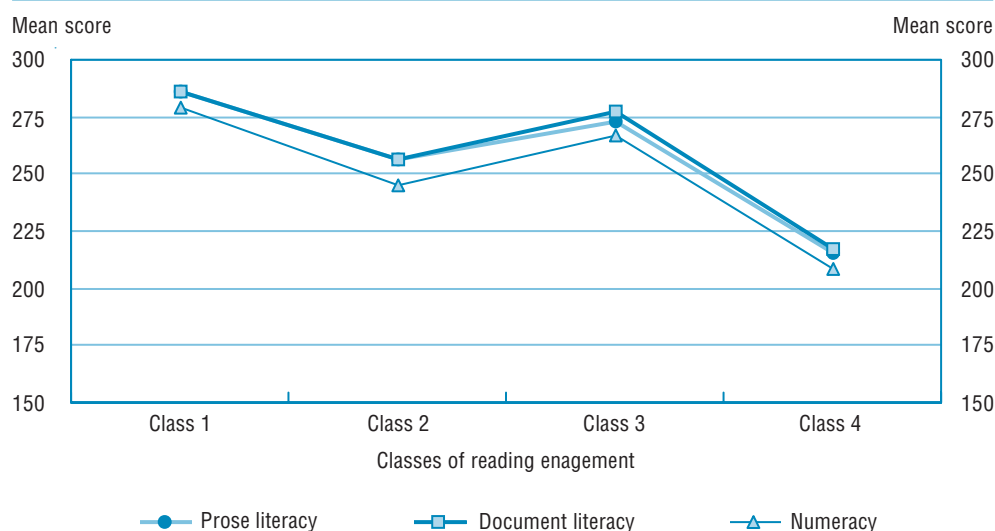


Table 3.11 shows ALL data for a selective set of variables by classes of reading engagement (see Table 2.12 for AEPS data). The relationship between performance and reading engagement in adults in the general population (see Figure 3.11) differed from that of adult learners, presented in Chapter 2 (see Figure 2.13). Although reading engagement affected the performance of adult learners in a positive way, this relationship was stronger for adults in the general population. Adults who were highly engaged with reading activities (i.e., adults in Class 1) performed significantly higher than adults who were the least engaged readers (i.e., Class 4) in all three scales, with differences of 69 points in document literacy and 71 points in prose literacy and numeracy. Highly engaged readers from the ALL population performed on average at Level 3 in all three domains while AEPS adults with similar level of engagement performed on average at Level 2 in prose and document literacy and at Level 1 in numeracy.

Figure 3.11

### Skills on the prose literacy, document literacy and numeracy scales by levels of reading engagement, ALL



Approximately half of the ALL adults were highly engaged in reading, more than twice the percentage of AEPS adults in this category. This difference also reflects general differences between these two populations. Table 3.11 shows data for a selective set of variables that include gender, place of birth, race, ethnicity, age, mother tongue, educational attainment, and adults' perception of how well they speak English (see Table 2.12 for similar data for AEPS adults). These categories showed that the positive relationship of reading engagement and performance remained across classes within these categories. Out of the 26 categories that are shown in this table, differences between the average scores for Class 1 and Class 4 were significant in 22 categories.<sup>50</sup> These differences were in general larger than the differences found for adult learners.

Among ethnic and racial groups, there were 19 percent more non-Hispanic than Hispanic adults in the general population and 16 percent more White than Black adults who were highly engaged. Within highly engaged readers in the general adult population, non-Hispanic adults performed 47 points higher than Hispanic adults on the prose literacy scale and Black adults performed 34 points lower than White adults on the same scale. These differences were smaller than those found in the adult learner population most likely because adult learners had lower overall levels of performance. The opposite occurred for the least engaged adults.

Within classes, a positive relationship was also found between performance and educational attainment. This relationship was stronger for adults within the highly engaged category where the performance difference between those who did not complete high school and those with more than a high school education was 32 points in prose literacy for native adults and 43 points on the same scale for non-native adults. Additionally, 74 percent of the highly-engaged native adults completed more than a high school education, while only 37 percent of the adult learners did so. Sixteen percent of native adults who did not complete high school were among

<sup>50</sup> Significance level of 5 percent.

the least engaged readers, while there were less than 2 percent of adults with more than a high school education in this category.

Age interacted with reading engagement in ways that were not constant across classes. For highly engaged readers, average performance on the prose literacy scale differed only slightly across the various age groups. However, differences existed in the percentage of adults from each category: 40 percent of adults between the ages of 16 and 25 compared to 56 percent of adults between the ages of 46 and 55 were among the highly engaged readers. The reverse was found among the least engaged readers where the various age groups were equally represented but younger groups had higher average performance.

The relationships between reading engagement, performance and demographic characteristics are complex and multidimensional. These data identified a pattern where highly engaged readers were represented by more females, native, non-Hispanic and older adults, as well as adults with higher levels of educational attainment. On the other extreme, the opposite occurred with the least engaged readers, as this group included a stronger representation of language and ethnic minorities, including more adults who were males, Blacks, and non-native. Among the least engaged readers were also Hispanic adults with Spanish as their mother tongue and a larger representation of adults who had not completed high school education.

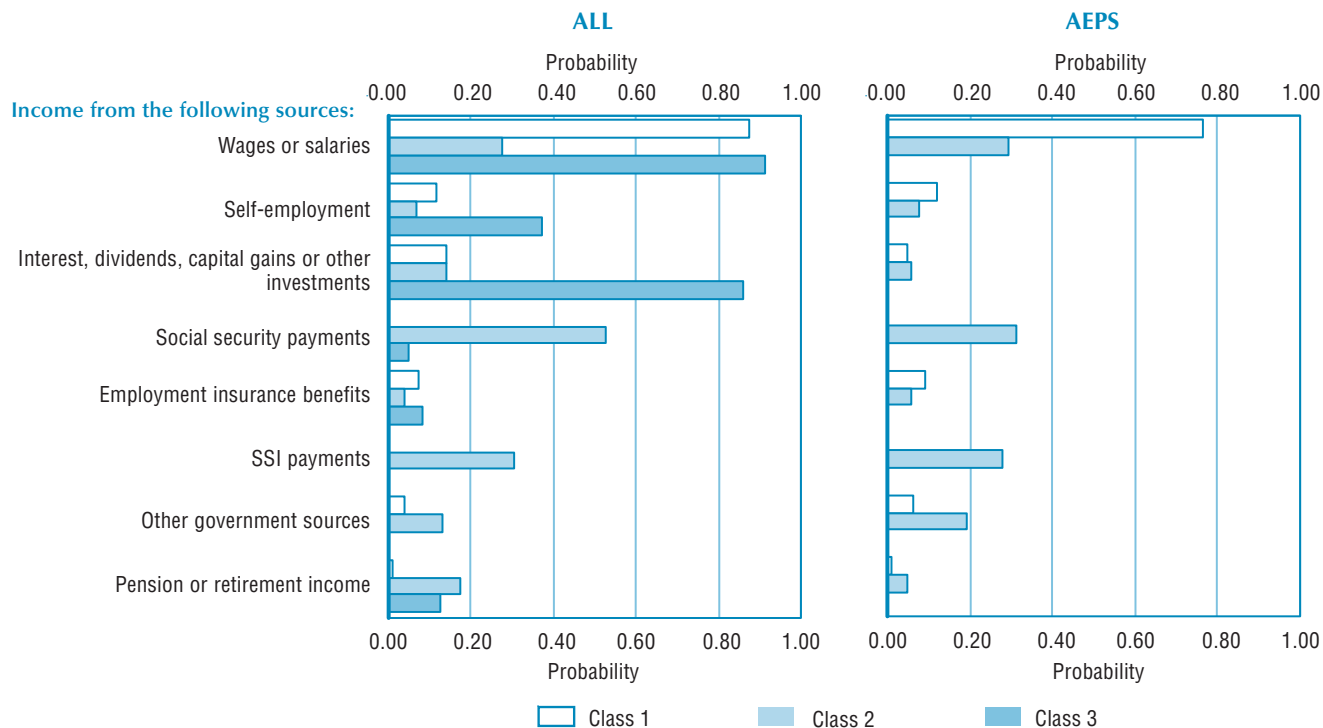
## Literacy and Wealth

The AEPS and ALL background questionnaires included questions on various sources of income, which resulted in the identification of three classes of adults, described below. It is important to note that Class 3, which is likely to represent more wealthy adults, is almost nonexistent in the adult learner population and therefore was not discussed in Chapter 2.

- **Class 1** represents 65 percent of adults in the general population and 85 percent of adult learners. Adults in this group had a high likelihood of having wages or salaries (including commissions, tips, and bonuses) as their only source of income. The first set of bars in Figure 3.12 shows the probabilities that adults in the general population (left panel) and adult learners (right panel) in Class 1 responded “yes” to a particular source of income (see the full set of response probabilities for the AEPS data in Table 2.13 and for the ALL data in Table 3.12).
- **Class 2** represents 9 percent of adults in the general population and 15 percent of adult learners. In general, adult in this group had a low likelihood of having any income, but when they did, it came from a combination of wages or salaries, social security benefits and SSI payments. The second set of bars in Figure 3.12 shows the probabilities that adults (left panel) and adult learners (right panel) in Class 2 responded “yes” to a particular source of income (see the full set of response probabilities for the AEPS data in Table 2.13 and for the ALL data in Table 3.12).
- **Class 3** represents 25 percent of adults in the general population and a class that did not exist among adult learners. These adults are likely to have income from wages and salaries, or to be self-employed. The distinguishing characteristic of this group is that they reported receiving income from interest, dividends, capital gains or other investments. The third set of bars in the left panel of Figure 3.12 shows the probabilities that adults in Class 3 responded “yes” to a particular source of income (see the full set of response probabilities for the ALL data in Table 3.12).

Figure 3.12

## Classification of wealth of adults, ALL and AEPS



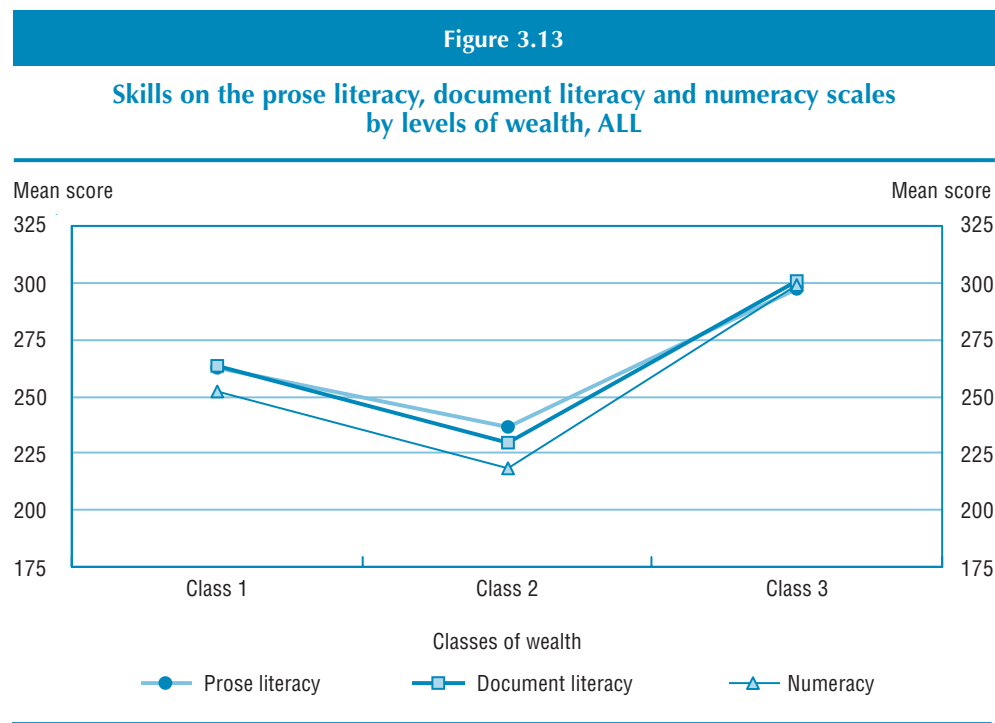
Variables such as educational attainment and socioeconomic background are likely to have a direct influence on wealth indicators, and thus, should not be examined in isolation. The relationship between performance and classes of wealth was stronger in the general adult population than among adult learners (see also Figure 2.16 for AEPS adult learners and Figure 3.13 for ALL adults).<sup>51</sup> Table 3.13 also shows data for a selected set of variables, including gender, place of birth, race/ethnicity, age, educational attainment, and employment status (see Table 2.14 for similar data for adult learners). On average, adults in Class 1 performed better than adults in Class 2—differences that were significant in all three domains. This positive relationship was found for 15 out of the 24 categories shown in Table 3.13.

Class 3, which included working adults who reported additional assets coming from interest, dividends, capital gains or other investments, did not exist among adult learners. In the ALL population, 25 percent of adults were in Class 3 with 8 percent more male than female adults, 8 percent more native adults, 19 percent more non-Hispanic adults, 23 percent more adults who were employed, about 15 percent fewer Black adults than other racial groups, and 49 percent of native adults with more than a high school education. This group also demonstrated the highest level of performance in all three scales, as shown in Table 3.13. The differences between their performance and the performance of adults in Class 2 were 61 points in prose literacy, 72 points in document literacy, and 81 points in numeracy, values equivalent to 1.2, 1.3 and 1.4 standard deviations respectively.

<sup>51</sup> Classes 1 and 2 are used for comparisons because they represent the two classes for which data existed for both populations.

Adults in Class 2, those who were likely to receive social assistance, scored significantly lower than adults in the other classes in all three domains. This class had 7 percent more native adults, two times as many Black as White adults, and 3 percent more non-Hispanic adults. It also included 30 percent of adults who were not in the labor force and 28 percent of adults between the ages of 56 and 65. It is important to consider that many social benefits are only available to U.S. citizens or legal residents, thus possibly excluding from this class a segment of the immigrant population that was in the country illegally.

Finally, 65 percent of adults were classified in Class 1, which represents the most traditional type of workers—those with income solely from wages and salaries. This class included larger proportions of adults from the younger groups, and adults who were non-native and of Hispanic backgrounds. Compared to the other two groups, these adults demonstrated an intermediate level of performance, as shown in Figure 3.13. On average, these adults performed 26 points higher than adults in Class 2 on the prose literacy scale and 35 points lower than adults in Class 3 on the same scale.



## Literacy and Health

The latent class analysis methodology was used to identify groups of individuals who shared similar characteristics based on their answers to a series of related questions from the AEPS and ALL background questionnaires. The combined index on health was based on the background questions that asked respondents about (a) their overall impression concerning their health, (b) how they felt about their lives over the past 12 months, (c) how much their health limited everyday activities, (d) whether their physical health interfered with their work or daily activities, (e) whether their emotional problems interfered with their work or daily activities, (f) the extent to which pain interfered with their normal work, (g) how often they felt calm and peaceful, (h) how often they had lots of energy, (i) how often they felt downhearted

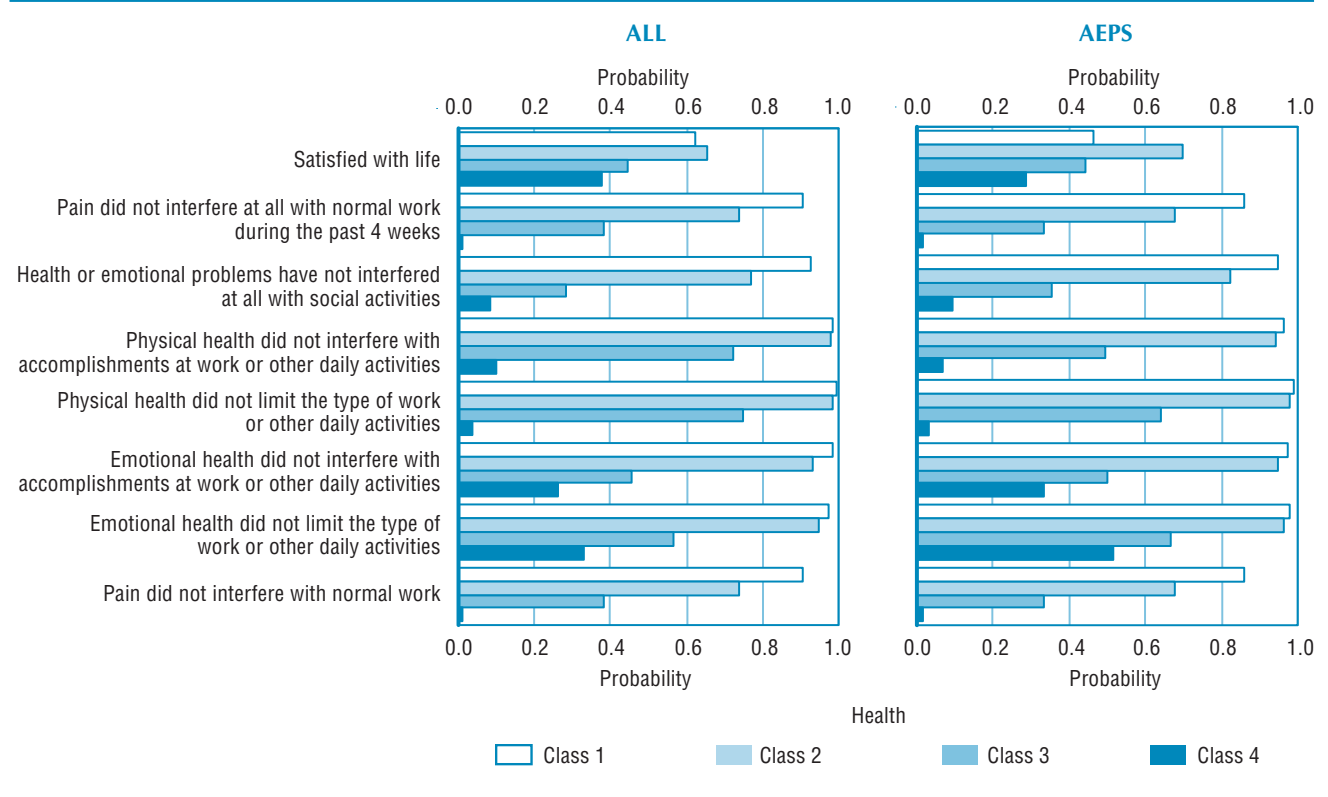
and blue, and (j) how often their physical health or emotional problems interfered with social activities. The resulting four latent classes are described below.

- **Class 1** represents 24 percent of adults in the general population and 31 percent of participants in adult education programs. These adults had a high likelihood of being satisfied with their lives and a moderate likelihood of saying they were in excellent health. Their physical health, emotional health, and pain did not interfere with their everyday activities. In the past 4 weeks, they were moderately likely to feel calm, peaceful, and energetic and did not feel downhearted and blue. This class represents adults who are in excellent health. The first set of bars in Figure 3.14 shows the probabilities that adults (left panel) and adult learners (right panel) in health Class 1 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities for the AEPS data in Table 2.15 and for the ALL data in Table 3.14).
- **Class 2** represents 47 percent of adults in the general population and 37 percent of participants in adult programs. These adults had a moderate likelihood of being satisfied with their lives and a moderate likelihood of saying their health is very good or good. Their current health was not interfering with their daily activities, and they did not have physical problems, including those associated with pain, that interfered with work or other regular activities. They were moderately likely to say that most of the time they felt calm, peaceful and energetic and they were downhearted only a little of the time. Their social activities were not affected by their physical or emotional problems. This class represents adults in good health. The second set of bars in Figure 3.14 shows the probabilities that adults (left panel) and adult learners (right panel) in health Class 2 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities for the AEPS data in Table 2.15 and for the ALL data in Table 3.14).
- **Class 3** represents 21 percent of adults in the general population and 29 percent of participants in adult programs. These adults had a moderate likelihood of being satisfied with their lives over the past 12 months and were more likely to say their health was good. Their current health was not interfering with daily activities and they had not had any problems related to their physical health, including having pain interfere with their normal activities. However, they were more likely to have difficulties associated with emotional problems. In general they felt calm, peaceful, and energetic and did not feel downhearted and blue. Their social activities were limited some of the time by physical or emotional problems. Adults in this class differed from adults in Class 1 on the emotional aspects. This class represents adults in moderate health. The third set of bars in Figure 3.14 shows the probabilities that adults (left panel) and adult learners (right panel) in health Class 3 in this class responded in a particular way to the selected set of questions about their health (see the full set of response probabilities for the AEPS data in Table 2.15 and for the ALL data in Table 3.14).
- **Class 4** represents 9 percent of adults in the general population and less than 4 percent of participants in adult programs. These adults had a low likelihood of being satisfied with their lives and feeling that their health was in fair condition. They reported that their current health was interfering with their daily activities, and they were likely to have problems with work or other regular activities because of their physical health, including the existence of pain which interfered quite a bit in their normal work. They reported that they were calm, peaceful and energetic only some of the time

and did not feel downhearted. Their social activities were limited some of the time by physical or emotional problems. This class represents adults in poor health. The fourth set of bars in Figure 3.14 shows the probabilities that adults (left panel) and adult learners (right panel) in health Class 4 responded in a particular way to the selected set of questions about their health (see the full set of response probabilities for the AEPS data in Table 2.15 and for the ALL data in Table 3.14).

**Figure 3.14**

**Classification of health for adults, ALL and AEPS**



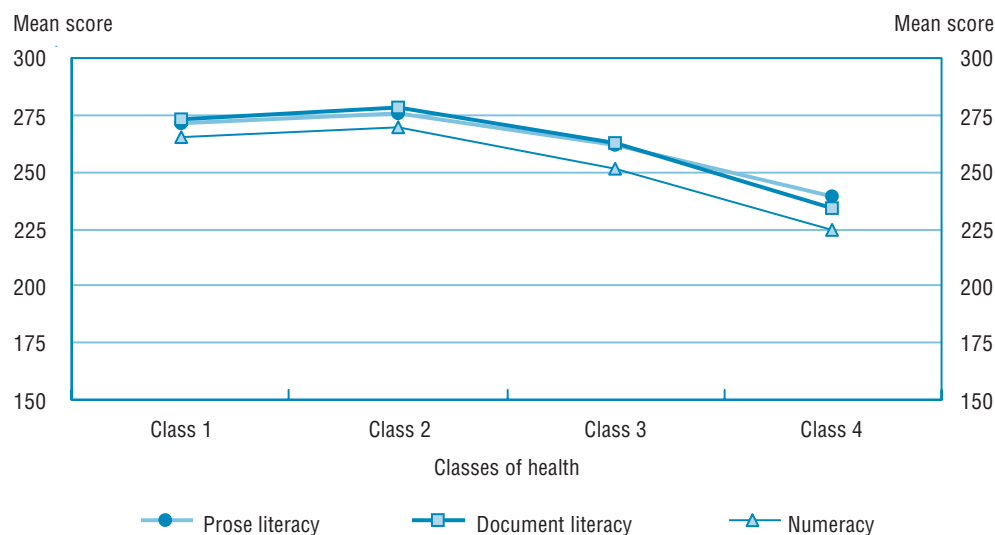
Categories of health are also affected by demographic and social characteristics of adults, and again, should not be examined in isolation. Health is likely to play a stronger role in the lives of older adults than in the lives of the younger population. The comparison of Figure 2.18 and Figure 3.15 shows that the relationship between performance in literacy and numeracy was not constant between the two populations of adults. While a relatively flat relationship existed for adult learners, an overall positive relationship existed for adults in the general population where those adults that considered themselves to be in excellent health performed better. Performance tended to decrease as their perception of their health status decreased.

Adults in Classes 1 and 2 considered their health to be very good and represented 70 percent of the ALL population. When considered as a group, these adults had the highest levels of performance in all three domains. These groups also included 74 percent of males, 76 percent of the adults who were employed, three-quarters of the adults between the ages of 16 and 25, and 79 percent of the native adults who had completed more than high school (see Table 3.15). A similar pattern existed for the AEPS population (see Table 2.16).

Within health classes, adults with the lowest levels of literacy and numeracy were also the oldest. Class 4 accounted for 20 percent of the adults between the ages of 56 and 65, 18 percent of adults who were unemployed, 22 percent of those that were not in the labor force, and only 4 percent of the native adults who had completed more than high school. Within this class, a positive relationship existed between performance and educational attainment, as well as between performance and employment status.

Figure 3.15

### Skills on the prose literacy, document literacy and numeracy scales by levels of health, ALL



## Final Remarks

The purpose of this chapter was to compare the adult learner population with the general adult population in terms of their skills and background characteristics in order to provide a better sense of how the participants in adult education programs compared with the general population of adults. This comparison revealed that minority and disadvantaged groups were largely represented in the AEPS population, more so than in the general adult population. In addition, adult learners often had lower levels of educational attainment. Finally, immigration seemed to play a larger role in the AEPS population as indicated by the larger percentages of non-native adults who reported having a mother tongue that was not English.

The adult learners participating in federally sponsored adult education programs represented minority and disadvantaged populations including immigrants and both native and non-native adults with limited levels of educational attainment. As shown here and in Chapter 2, these adult learners had average literacy and numeracy skills which were statistically significantly below those of the general population. As a summary, the following table highlights key characteristics which distinguish these two populations of adults.

## Adult Education in America: A First Look at Results from the Adult Education Program and Learner Surveys

| Characteristics   | Adults in the general population (ALL)  |            | Adults in adult education programs (AEPS)   |            |
|---|---|------------|---|------------|
| Average performance on the prose literacy, document literacy, and numeracy scales                               | Prose:  | 269        | Prose:  | 219        |
|   | Document:   | 270        | Document:   | 228        |
|   | Numeracy:   | 261        | Numeracy:   | 203        |
| Percentage of adults performing at Levels 1 and 2 on the prose literacy, document literacy, and numeracy scales | Prose:  | 53 percent | Prose:  | 84 percent |
|   | Document:   | 53 percent | Document:   | 82 percent |
|   | Numeracy:   | 59 percent | Numeracy:   | 92 percent |
| Percentage of learners between the ages of 16 and 25  |   | 21 percent |   | 38 percent |
| Percentage of Hispanic adults   |   | 11 percent |   | 35 percent |
| Percentage of White adults  |   | 70 percent |   | 53 percent |
| Percentage of Black or African American adults  |   | 12 percent |   | 21 percent |
| Percentage of adults born in the United States  |   | 83 percent |   | 57 percent |
| Percentage of adults who reported English as their mother tongue  |   | 86 percent |   | 56 percent |
| Percentage of adults who completed at least high school (completed high school and beyond)                      | Native:   | 85 percent | Native:   | 10 percent |
|   | Non-native:   | 74 percent | Non-native:   | 6 percent  |
| Employment status   | Employed:   | 68 percent | Employed:   | 50 percent |
|   | Unemployed or looking for work:   | 9 percent  | Unemployed or looking for work:   | 34 percent |
| Source of income  | Reported income from wages or salaries:   | 79 percent | Reported income from wages or salaries:   | 65 percent |
|   | Reported income from interest, dividends, capital gains, or other investments:              | 28 percent | Reported income from interest, dividends, capital gains, or other investments:              | 5 percent  |
| Frequency of reading newspapers   | Read newspapers at least once a week:   | 68 percent | Read newspapers at least once a week:   | 59 percent |
|   | Never read newspapers:  | 7 percent  | Never read newspapers:  | 12 percent |
| Frequency of reading books  | Read books at least once a week:  | 44 percent | Read books at least once a week:  | 48 percent |
|   | Never read books:   | 13 percent | Never read books:   | 14 percent |
| Satisfaction with life  | Satisfied or extremely satisfied with their lives during the 12 months prior to the survey: | 74 percent | Satisfied or extremely satisfied with their lives during the 12 months prior to the survey: | 69 percent |
| Health  | Good or excellent:  | 52 percent | Good or excellent:  | 58 percent |



# Chapter 4

## Comparing Literacy Skills of English- and Spanish-Speaking Hispanic Adult Learners

### Introduction and Highlights

The influence of immigration in the United States was mentioned in previous chapters of this report as it has particularly affected the profile of adult education programs. A portion of these immigrants arrive in the United States with limited formal education, limited English language skills, or both and therefore require educational services and support. Immigrants in the United States represent a wide range of nationalities and languages. Among the various ethnic groups, the Hispanic immigrant population in the United States is one of the fastest growing. According to the U.S. Census (U.S. Census Bureau 2000), Hispanics represented 12.5 percent of the population in 2000 and increased to 14.4 percent of the population in 2005 (U.S. Census Bureau 2005).<sup>52</sup> In the AEPS adult learner population, Hispanics had an even stronger representation—some 35 percent of the adult education participants in the United States were of Hispanic or Latino origin.

A review of some relevant characteristics of non-native and Hispanic program participants presented in Chapters 2 and 3 follows. It should be noted that data about non-native adults from the overall AEPS sample include both Hispanics and other non-native groups.

<sup>52</sup> This considers Hispanics or Latinos of any race (U.S. Census Bureau 2000; 2005). “The 2005 American Community Survey universe is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters” (U.S. Census Bureau 2005).

- Non-native adults represented a large percentage of participants in adult education programs. Forty-three percent of adult education participants were non-native compared with 14 percent non-native adults in the general adult population.
- In the AEPS population, native learners outperformed non-native learners by 62 points in prose literacy, 52 points in document literacy, and 30 points in numeracy. These score differences were larger than comparable differences in the general adult population, particularly in the two literacy domains.
- Non-native adult learners attended adult education programs mostly to develop or improve English skills, with 85 percent enrolled in English as a Second Language (ESL) classes.
- While 14 percent of adults in the general population reported a mother tongue that was not English, this group represented 44 percent of the participants in adult education programs. Among non-native adult learners, 63 percent reported Spanish as their mother tongue.
- Adult learners who had English as their mother tongue outperformed those who spoke a mother tongue that was not English by 60 points in prose literacy, 50 points in document literacy, and 29 points in numeracy.
- Among ethnic groups, Hispanic adults represented 35 percent of the participants in adult education programs in the United States. In comparison, results from the Adult Literacy and Life Skills Survey (ALL) showed that Hispanic adults represented only 11 percent of the general adult population.
- In the AEPS population, the average performance of Hispanic adult learners was lower than that of non-Hispanic learners by 30 points in prose literacy, 28 points in document literacy, and 16 points in numeracy. These differences were not present when place of birth was also considered—that is, there were no differences in average performance between Hispanic and non-Hispanic adult learners who were native to the United States.

General findings such as these led to an interest in better understanding the extent to which low fluency in English (the AEPS testing language) impacted the overall performance of Hispanic learners on these literacy measures. To examine the performance of this population in more detail, two versions of the background questionnaire and assessment tasks were developed: one in English and another in Spanish. These instruments were randomly distributed to Hispanic participants in adult education programs, to avoid any influence that their choice of language might have on their performance. The AEPS oversampled Hispanic adults enrolled in adult education programs in order to obtain results that could be generalized to the overall Hispanic population of adult learners. The segment of the adult learner population that participated in this portion of the study represented 1,704,948 Hispanic adult learners. A description of the study design is included in Appendix A4.

Thus the goal of this portion of the AEPS study was to collect data for the purpose of characterizing and comparing the literacy skills of the Hispanic learner population in English and Spanish. This chapter concentrates on results related to prose and document literacy because no numeracy tasks were included in the assessment materials for this portion of the study; rather the materials consisted of tasks from the more language-focused prose and document literacy domains. One important note for readers is that comparisons were often limited by small cell sizes, particularly for the sample that took the assessment in Spanish.

## Key Findings

- Hispanic adult learners were tested in either Spanish or English. Although their average literacy scores were higher in Spanish than in English, their average proficiency when tested in Spanish was still quite limited as they performed in the low end of Level 2 on the prose scale.
- Two-thirds of the Hispanic adult learners were enrolled in ESL classes.
- Adults whose mother tongue was Spanish performed better when tested in Spanish. Twenty-three percent of adult learners on the document literacy scale performed at Level 3 or above when tested in Spanish.
- Length of time since immigrating to the United States did not influence the performance of non-native Hispanic adults. The reasons behind this finding are unclear. One possible explanation relates to the age at which these adults immigrated. Another possibility is related to their interpretation of the question of when was the first time they came to the United States.
- Results showed that Hispanic learners, on average, were not equally proficient in both languages. This was confirmed by their own reports about their ability to understand, speak, read and write Spanish and English. Hispanic learners considered themselves to have a higher ability in Spanish than in English. This difference was also reflected in their performance data.
- When tested in Spanish, the performance of Hispanic learners in the United States did not differ from the performance of adults in Nuevo Leon, Mexico. Nuevo Leon is a state in Mexico that participated in the first round of the ALL and provided a reference point for comparing Hispanic adult learners when tested in Spanish.

## An Overview of Hispanic Learners in the United States

### Profile of Literacy

This chapter examines Hispanic adults who participate in adult education programs, both those born in the United States and those born in other countries. Immigration contributed to over a third of the U.S. population growth during the past decades (Sum, Kirsch, and Yamamoto 2004a; Vernez, Krop, and Rydell 1999). Thus immigration is rapidly changing the demographic characteristics of the United States, including the extent to which other languages are being slowly embedded into the society. Language impacts how individuals are able to apply existing knowledge and how they acquire new knowledge. For individuals who speak multiple languages, skills in these languages are rarely equal. The ability to transfer existing knowledge to a new language improves with familiarity and contact. Non-native adults represented 14 percent of the general adult population and 43 percent of participants in adult education programs. It is important to understand both the language and literacy skills that immigrants bring with them as their skills, or a lack thereof, impact the educational services these learners require.

Many immigrants arrive in the United States without the necessary English skills for full participation in American society. Adult education programs offer them an opportunity to acquire these skills. However, many adults also lack basic literacy and numeracy skills, an issue that was explored in Chapters 2 and 3 where English was the sole testing language. Data presented in those chapters showed that 49 percent of the learners enrolled in adult education programs performed at Level 1 on the prose literacy scale, a percentage that is 2.4 times higher than that for adults in the general population (see Table 3.1).

When Hispanic learners were tested in Spanish for this portion of the assessment, they demonstrated levels of literacy that were significantly higher than the English-tested Hispanic adults on the prose literacy scale with differences of 29 points (see Table 4.1). In document literacy, a nonsignificant difference of 12 points was found. It is important to note, however, that the average scores of Spanish-tested adult learners remained relatively low compared to scores for the general population of adults as demonstrated in the ALL: 40 points lower in prose literacy and 48 points lower in document literacy (see Table 3.1). Thus, even when tested in their mother tongue, Hispanic learners demonstrated levels of literacy skills that are considered minimal for full participation in today's society.

Figure 4.1 shows prose literacy results for Hispanic adult learners and compares these with the results presented in Chapters 2 and 3 for the full AEPS population of adult learners and the general adult population from the ALL. The average performance of the Spanish-tested Hispanic adult learners was (a) significantly higher than the average performance of Hispanic adult learners who were tested in English, (b) significantly lower than the average performance of adults in the general population (i.e., ALL), and (c) not statistically different from the average performance of participants in adult education programs (i.e., AEPS).<sup>53</sup> The average performance of the English-tested Hispanic adult learners on the prose literacy scale was significantly lower than the average performance of adults in the general population and other adult learners.

These results suggest that while the testing language played a role in the average performance of Hispanic learners, these adults have not acquired critical literacy skills, either in English or in their native language. This is reasonable as they are participating in an adult education program. However, English skills are not their only area of difficulty as, on average, the results show that these adult learners have both a language and a literacy challenge thus increasing the range of skills they must work to develop.

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<sup>53</sup> Significance level of 5 percent.

Figure 4.1

## Multiple comparisons on the prose literacy scale, Hispanic population

| Prose literacy                                   |      |       | Hispanic adult learners tested in English (AEPS) | Adult learners (AEPS) | Hispanic adults in the ALL population (ALL) | Hispanic adult learners tested in Spanish (AEPS) | Adults in the ALL population (ALL) |
|--|------|-------|--|-----------------------|---|--|------------------------------------|
|  | Mean | S.E.  | 200<br>(2.6)                                     | 219<br>(1.9)          | 225<br>(4.6)                                | 229<br>(8.9)                                     | 269<br>(1.3)                       |
| Hispanic adult learners tested in English (AEPS) | 200  | (2.6) |  | ↓                     | ↓   | ↓  | ↓                                  |
| Adult learners (AEPS)                            | 219  | (1.9) | ↑  |                       | •   | •  | ↓                                  |
| Hispanic adults in the ALL population (ALL)      | 225  | (4.6) | ↑  | •                     |   | •  | ↓                                  |
| Hispanic adult learners tested in Spanish (AEPS) | 229  | (8.9) | ↑  | •                     | •   |  | ↓                                  |
| Adults in the ALL population (ALL)               | 269  | (1.3) | ↑  | ↑                     | ↑   | ↑  |                                    |

|   |  |
|---|--|
| ↑ | Mean proficiency statistically significant higher than in comparison group |
| • | No significant difference from comparison group                            |
| ↓ | Mean proficiency statistically significant lower than in comparison group  |

The relationship between the domain being assessed and the testing language is also important to consider. Hispanic learners performed better on both prose and document literacy tasks when tested in Spanish, although the difference between English and Spanish testing was larger for prose literacy. This larger difference was probably related to the type of task being measured. Prose literacy involves tasks based on continuous texts that are organized in sentences and paragraphs, thus requiring knowledge of linguistic features including syntax and grammar. One would expect that prose literacy texts would be easier to understand in a mother tongue than in a second language, due to familiarity with the language structure. On the other hand, document literacy tasks involve non-continuous texts presented in various formats, including tables, schedules, charts, graphs, and maps. The skills involved in locating information and interpreting these non-continuous texts may be more easily transferable to a second language.

In addition to looking at the overall mean, it is also important to consider the distribution of scores, as shown in the first panel of Figure 4.2. This analysis considers the difference in performance between the highest and the lowest groups of performers which is known to represent the degree of equality (or inequality) of educational outcomes—larger performance differences can be interpreted as high inequality. As was true for the figures presented in previous chapters, these bars represent the ranges of scores between the 10th and the 90th percentile for each of the three scales.<sup>54</sup> The

<sup>54</sup> See Appendix A1 for the definition of a percentile

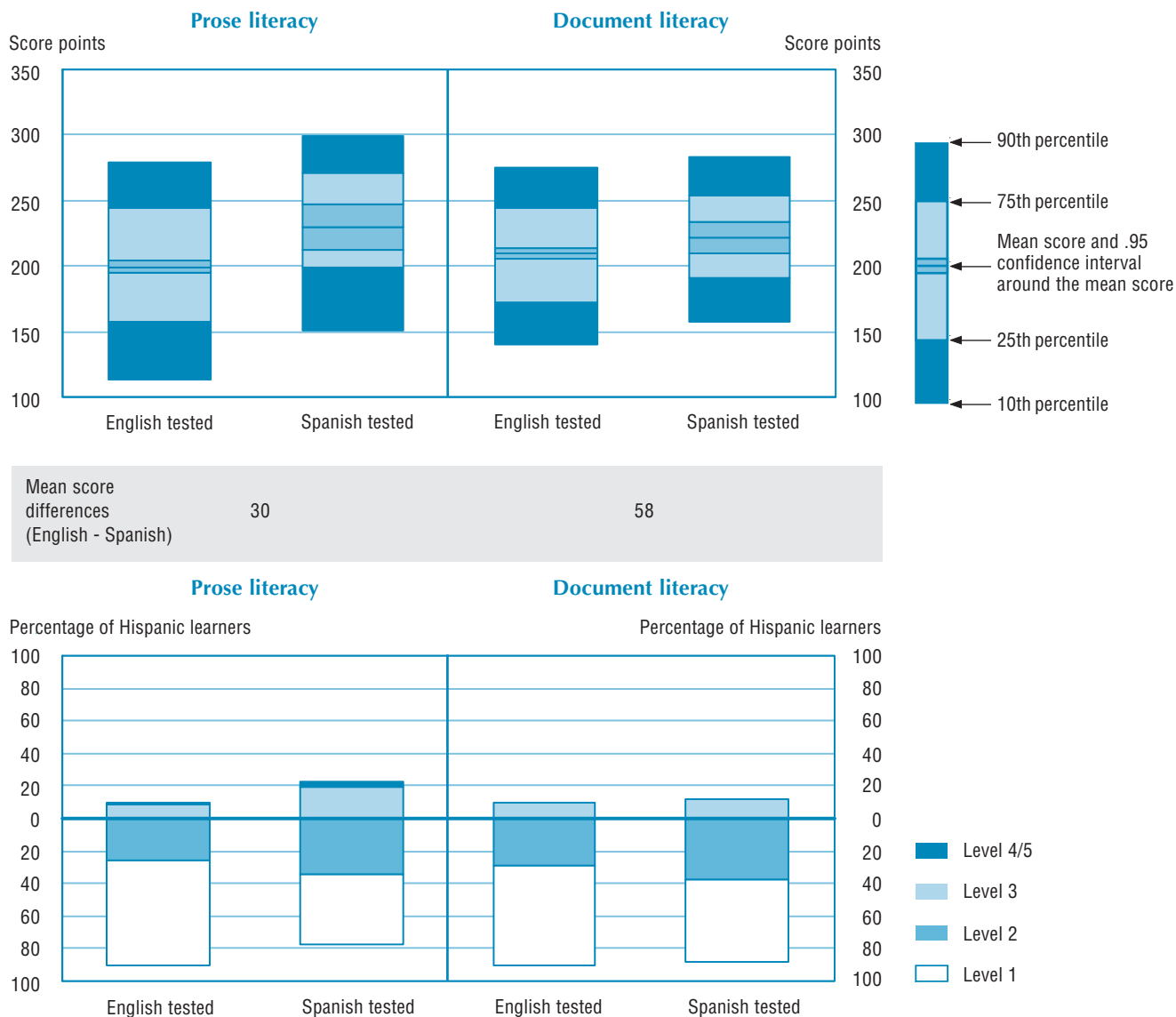
narrow boxes in the middle of the bars represent the average scores and their confidence interval. As shown, there was a wide variation in performance between learners in the top and bottom percentiles (see also Table 4.1). On the prose literacy scale, the gaps between the 90th and the 10th percentiles were 148 points for the Spanish-tested Hispanic adults and 165 points for those tested in English—gaps that were equivalent to 2.4 and 2.7 standard deviations, respectively. The performance gap for Spanish-tested Hispanic learners was narrower than the gap of 156 points found for the AEPS population as a whole (equivalent to 2.6 standard deviations; see Table 3.1). The performance gaps were wider for the English-tested adults indicating more variability in the English skills of Hispanic adult learners (see Table 3.1). As English was not the mother tongue for most of these learners, this wider gap could be associated with large differences in their level of familiarity with English, as well as differences in the length of time since their first contact with the English language.

The literacy proficiency scales are divided into five levels, as explained in Chapter 2. The second panel in Figure 4.2 illustrates the distribution of learners by skill levels in prose literacy and document literacy, the two domains assessed in this portion of the assessment. Large percentage differences existed between those tested in Spanish and those tested in English. This was particularly true at Level 1, the lowest of the five proficiency levels. Twenty-one percent more Hispanic adult learners performed at Level 1 on the prose literacy scale when tested in English. The difference on the document literacy scale was smaller, but still 11 percent more learners performed at Level 1 when tested in English.

While some 23 percent of Hispanic adult learners performed at Level 3 or higher in Spanish prose literacy, only 10 percent of the English-tested Hispanic adults did so. However, these results need to be put into some perspective. Forty-seven percent of adults in the general population of adults (i.e., ALL) performed at Level 3 or higher on the prose literacy scale; this figure was 16 percent for the entire population of adult learners (i.e., AEPS) (see Tables 3.1 and 4.1). These data reveal that while their Spanish literacy skills were better than their English literacy skills, Hispanic learners, on average, were able to perform only half as well as the general adult population. These data also showed that their more extensive knowledge of Spanish, as the mother tongue for over 80 percent of these learners, did not translate into literacy skills in English that came close to matching those of the general adult population.

Figure 4.2

Skills on the prose and document literacy scales, Hispanic population



## Relevant Characteristics within the Hispanic Population of Adult Learners

Adult learners represent a diverse population, with differences ranging from their demographic characteristics, and social and economic backgrounds, to their professional and educational paths. Another dimension on which they vary is by the type of instructional program in which they are enrolled. Data were collected about three types of instruction: Adult Basic Education (ABE) which provides instruction to learners with skills below the secondary level, Adult Secondary Education (ASE), and English as a Second Language (ESL) which serves non-native English speakers who wish to improve their English language skills. Two thirds of Hispanic learners surveyed in the AEPS attended ESL classes (see Table 4.2). Hispanic adult learners

who attended ESL classes and were tested in Spanish performed 57 points higher on the prose literacy scale than Hispanic ESL participants who were tested in English. The difference for Hispanic adult learners who attended ABE classes was not only smaller—27 points—but learners who were tested in English performed better. Thus limited English skills may be interfering more with the performance of Hispanic adult learners who attend ESL classes than with the performance of adults who attend other types of adult education programs. ABE learners are not likely to have significant problems with English skills either because of education or because their first contact with the English language occurred at an earlier age. For example, among the Hispanic adult learners who were tested in English, 24 percent of those who attended ABE classes started to learn English before age 10 compared with only 6 percent of the adults who attended ESL classes (see the AEPS database).

For Hispanic learners who attended ESL classes and were tested in Spanish, 41 percent performed at Level 1 on the prose literacy scale and 49 percent performed similarly on the document literacy scale. These percentages increased to 78 percent on the prose literacy and 76 percent on the document literacy scales for the ESL Hispanic learners who were tested in English (see Table 4.2). When put into perspective, these percentages once again were similar to the percentages found for the AEPS population of adult learners on the prose literacy scale (49 percent of adult learners performed at Level 1) and still twice as large as the ones found in the ALL population (20 percent of adults performed at Level 1) (see Table 3.1).

### Age and Skills

Age represents a unique variable in the adult literacy assessments because of the diversity of ages represented—adults in the samples range from age 16 to 65—and because of its potential to highlight performance differences among adult learners. The top panel of Figure 4.3 shows that over half of the Hispanic adult learners were between the ages of 25 and 44. As a group, these Hispanic learners were older than both the general adult population and the population of adult learners. Eighty-three percent of Spanish-tested Hispanic adult learners were older than age 25—as compared to 60 percent for the AEPS population of adult learners and 80 percent for the ALL population (see Tables 3.3 and 4.3). The bottom panel of Figure 4.3 shows average performance across age groups. It allows comparisons between (a) the two literacy domains (outlined diamonds represent prose literacy and filled in diamonds represent document literacy) and (b) the two groups of Hispanic adult learners (light blue lines represent Hispanic adults who were tested in English and the dark blue lines represent Hispanic adults who were tested in Spanish); see also Table 4.4. The performance difference between the various age groups was small up to age 25. From age 25 onwards, the performance of adult learners who were tested in Spanish increased while the opposite happened with those adults who were tested in English.

The relationship between age and performance for Hispanic learners who took the test in Spanish, shown by the dark-blue lines, was not consistent, rising between the youngest and second youngest age groups and then decreasing for the older age groups. The highest average performances in Spanish for both domains were achieved by Hispanic adults aged 25 to 44. The negative relationship previously found between age and performance was clear for the English tested population and more apparent in prose literacy where 78 points separated the performance of Hispanic adult learners ages 16 to 18 from adults who were older than 60 (see Table 4.3). The familiarity adults acquired in their native language most likely helped keep performance on

prose literacy tasks level between the two oldest groups. When tested in English, which is the second language for many Hispanics, lower performance was found overall with a decrease in performance for adults older than 60.

Figure 4.3

### Age and skills on the prose and document literacy scales, Hispanic population

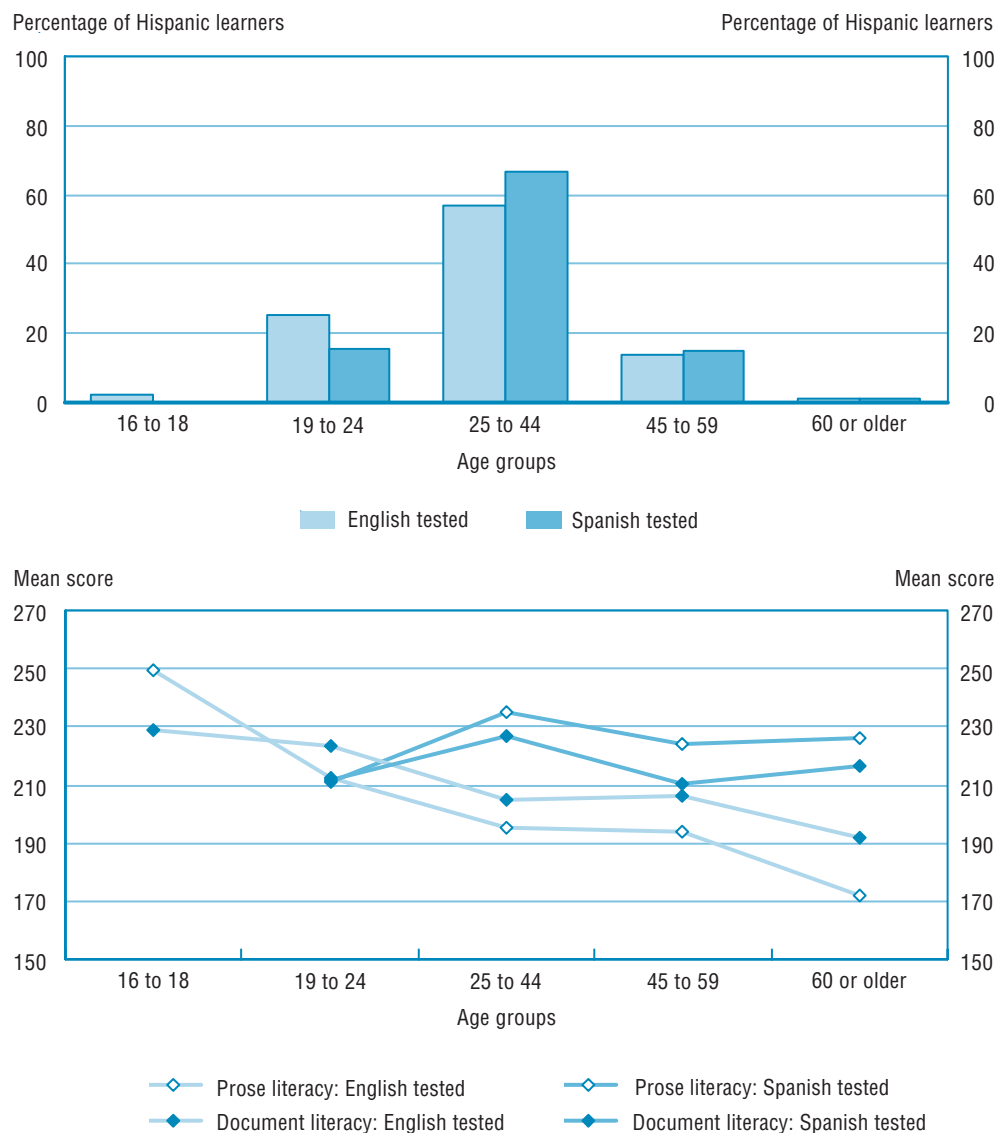
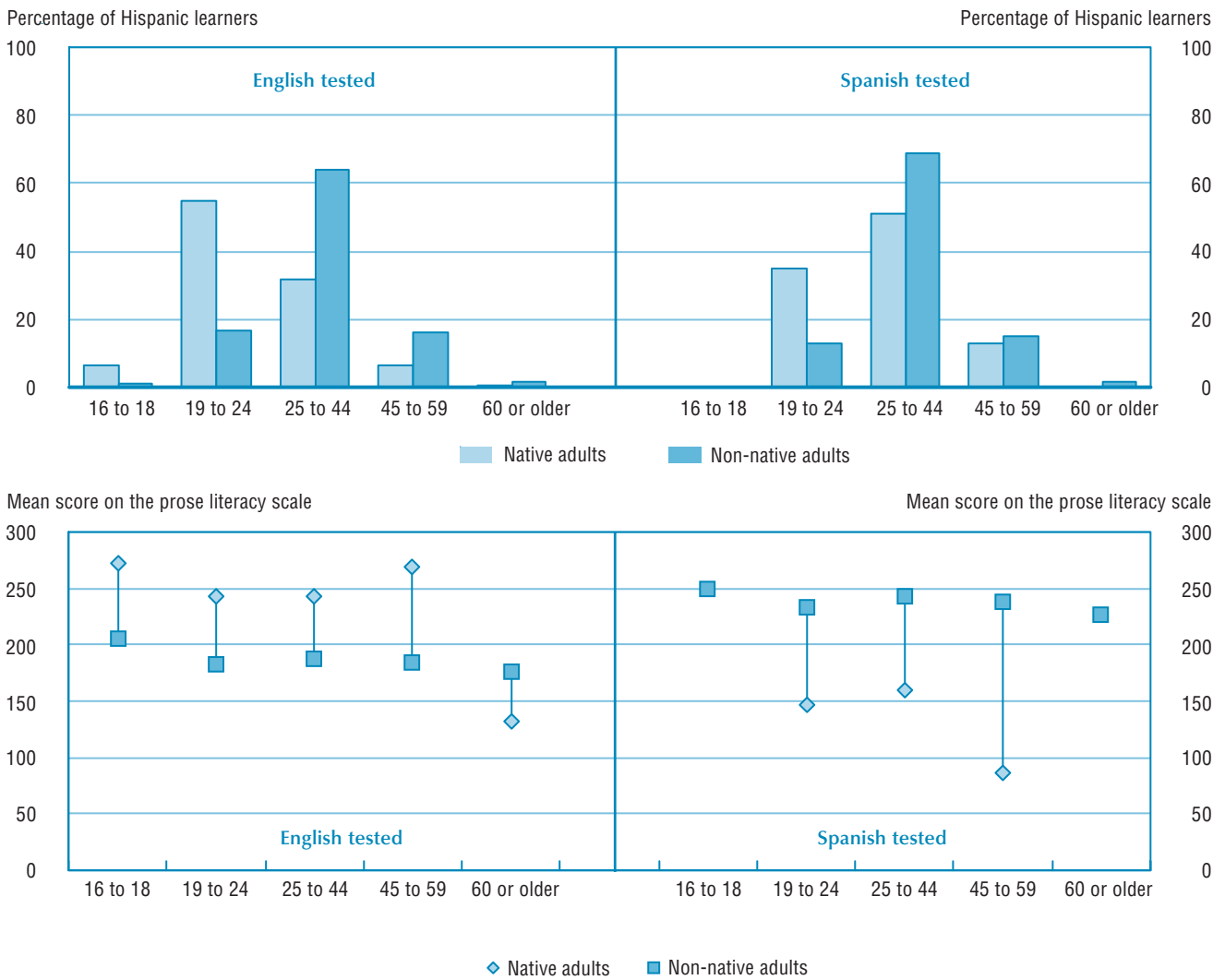


Figure 4.4 shows the same relationship between age and performance and also examines place of birth. The first panel shows that 55 percent of the native Hispanic learners who were tested in English were between the ages of 19 and 24 (see also Table 4.4). In contrast, over 60 percent of non-native Hispanic learners were between the ages of 25 and 44. The second panel of Figure 4.4 shows that the performance of non-native learners was more consistent across age groups than the performance of native learners.

These results could be related to the time these adults have been in the United States. As it is typically easier for younger adults to acquire new skills, adults who immigrated after middle age may have difficulties in mastering a new language. For example, about 40 percent of the Hispanic adults reported that they started to learn English after age 19 (see the AEPS database). Also, it is important to consider that three-quarters of these Hispanic learners were attending ESL classes, which further supports the notion that they had not yet acquired English skills.

**Figure 4.4**

**Age and skills on the prose literacy scale by place of birth, Hispanic population**



**Place of Birth and Mother Tongue**

Two more issues that could impact performance in this adult population are place of birth and mother tongue. In many aspects, these two variables are so interrelated it is difficult to separate them for the purpose of interpretation. Forty-three percent of adults in the AEPS population were non-native and 44 percent spoke a language that was not English as their mother tongue (see Chapter 2). It is important to recognize that within the AEPS context, not all non-native adult learners were born

in Spanish-speaking countries. Among this subpopulation of adult learners—Hispanic adults—at least three-quarters were non-native and over 80 percent reported Spanish as their mother tongue (see Table 4.5 and Table 4.6).

When place of birth and mother tongue were jointly considered, the percentage of non-native adults who spoke Spanish as their mother tongue remained high at 97 percent (see Table 4.7). Even after immigration, Spanish was still widely spoken among non-native Hispanic learners when performing daily activities. For example, 90 percent of them reported that they spoke Spanish at home, 44 percent spoke Spanish at work, and 45 percent used Spanish during shopping (see the AEPS database). Therefore, an assumption within this context is that non-native Hispanic adults were tested in their mother tongue when tested in Spanish. On the other hand, mother tongue among native adults was more divided: two thirds of Hispanic native adults spoke Spanish and one-third reported English as their mother tongue in the English-tested sample.

In general, being tested in their mother tongue seemed to have a positive influence on performance. The results showed that non-native Hispanic learners who were tested in Spanish performed 54 point higher in prose literacy and 29 points higher in document literacy (see Table 4.5). This influence was also reflected in the smaller percentage of non-native Hispanic learners who performed at Level 1 on the prose literacy scale when tested in Spanish: 73 percent when they were tested in English and 39 percent when they were tested in Spanish. As is true throughout most of the performance data, this difference was smaller on the document literacy scale.

Even though the performance of Spanish-speaking Hispanic adults was higher when they were tested in Spanish, the average scores of 236 and 226 in prose and document literacy respectively were still lower than the scores of 248 and 250 obtained by English-speaking Hispanic adult learners who were tested in English. This finding holds for both prose and document literacy (see Table 4.6). This emphasizes the limited influence of testing language on overall performance; while language was an important factor, it did not fully account for the limited literacy skills of the population.

The development of skills in a foreign language depends on the experiences with and the amount of exposure to this new language. For many adults, their English skills are related to the time since they immigrated to the United States as well to the degree to which English is used in their daily activities. Non-native Hispanic learners whose mother tongue was Spanish reported that they continued to speak Spanish at home (92 percent) and with relatives (94 percent). However, English became the language of the work place for 41 percent of these Hispanic learners and the language of shopping and commerce for 53 percent of them (see the AEPS database).

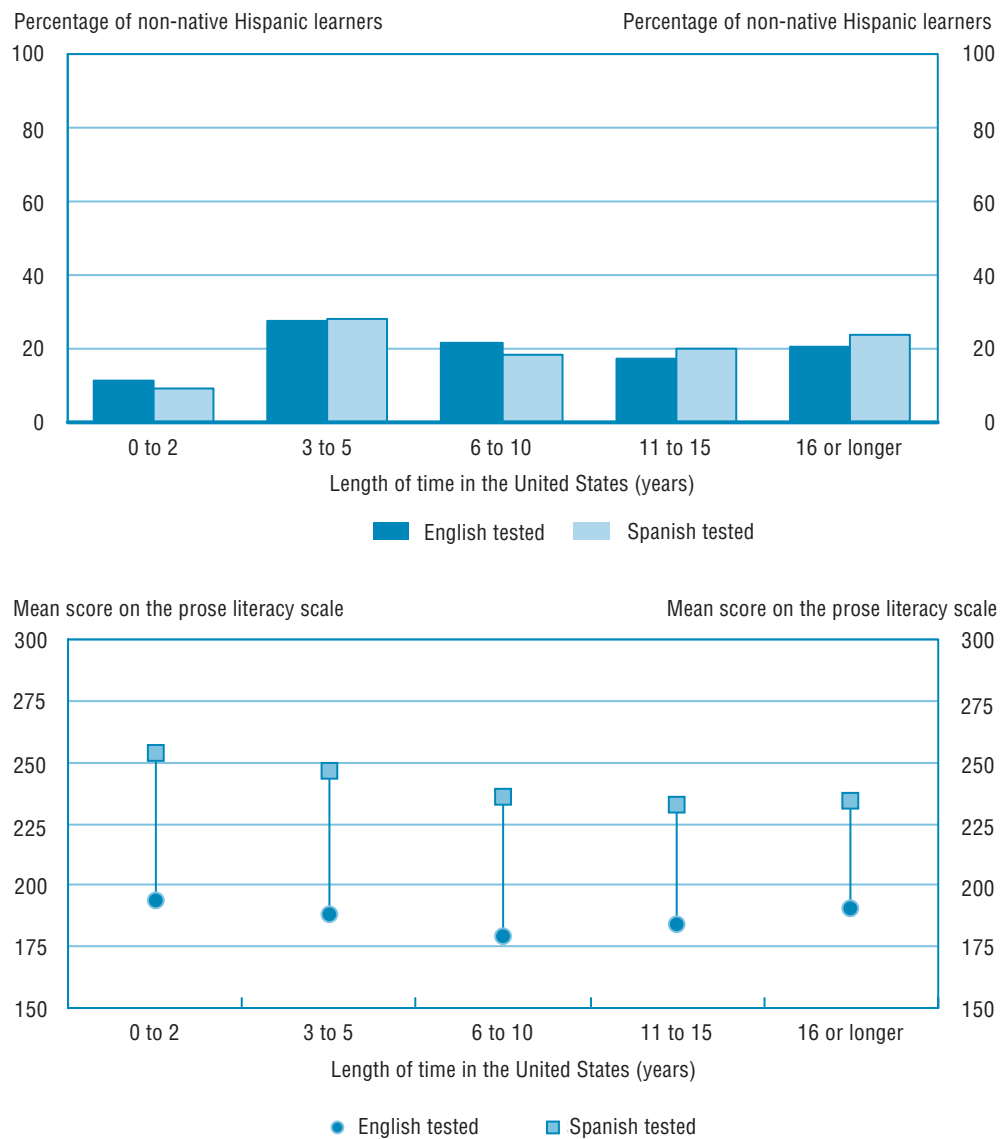
What about the impact of time spent living in the United States on skills? Non-native adults varied in terms of the length of time they had lived in United States as well as the context in which this immigration took place. This length of time most likely influenced their familiarity with the English language and the extent of their adaptation to this new society. The first panel of Figure 4.5 shows the distribution of non-native adult learners by how long they had been in the United States (see Table 4.8). The second panel of Figure 4.5 shows average performance by length of time in the United States on the prose literacy scale. Testing language had a stronger influence on performance than the time since immigration, with Hispanic learners who were tested in Spanish performing better.

Overall, the relationship between years in the country and performance on the prose literacy scale was quite flat with no significant differences among the groups.

The reasons behind this finding are not clear. One possibility is that the population of Hispanic immigrants may enter and leave the country several times during a given period of time. It is also the case that some immigrants live in communities within the United States where they continue to speak their native Spanish. Therefore, although they have been in the country for many years, their contact with the English language may have been limited. An alternative explanation is related to how participants interpreted the immigration question on the background questionnaire which asked “In what year did you first immigrate to the United States?” It is possible that some study participants may have interpreted that question as asking for the first time they came to the United States, without accounting for the times when they left and came back. If they left for any significant periods of time, the data collected may be an overestimate of the time they lived in the United States.

Figure 4.5

**Years after immigration and skills on the prose literacy scale, non-native Hispanic population**



These differences in performance showed that these learners were not equally proficient in both languages: Spanish as their mother tongue and English as the national language of the country to which they immigrated. The first panel in Figure 4.6 shows that Hispanic adult learners consistently reported their ability in Spanish as being higher than their ability in English (see also Table 4.9). Ninety-one percent of the Spanish-tested Hispanic learners reported that they had a good understanding of Spanish when someone spoke with them while 53 percent reported that they had a good understanding of English.<sup>55</sup> Among this same group, these figures dropped when written language was considered. Eighty-two percent perceived that their ability to write in Spanish was good and 33 percent of adults perceived their ability to write in English was good.<sup>56</sup>

The second panel of Figure 4.6 shows a positive relationship between performance on the prose literacy scale and perceived ability in the testing language. In all aspects of language (i.e., their ability to understand, speak, read or write), large differences in performance were found between learners who viewed their ability as very good compared to those who viewed their ability as not good. This showed that adult learners had accurate perceptions about their ability as reflected in their performance.

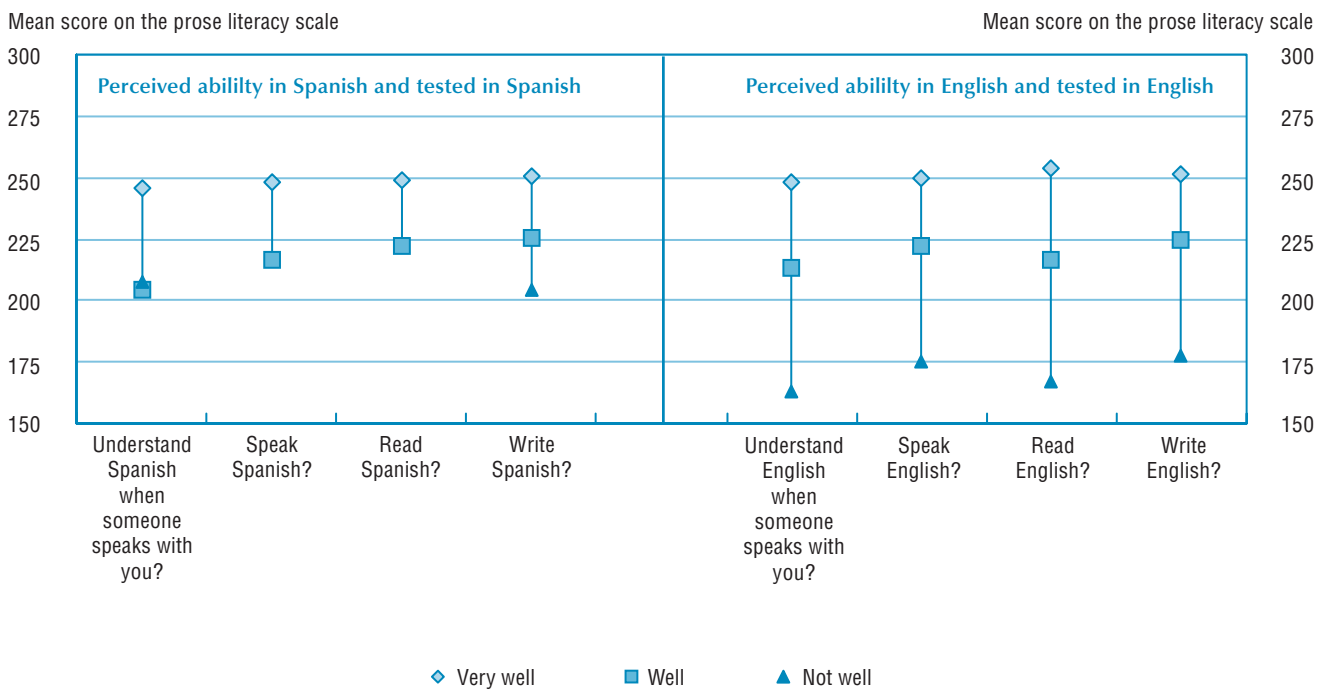
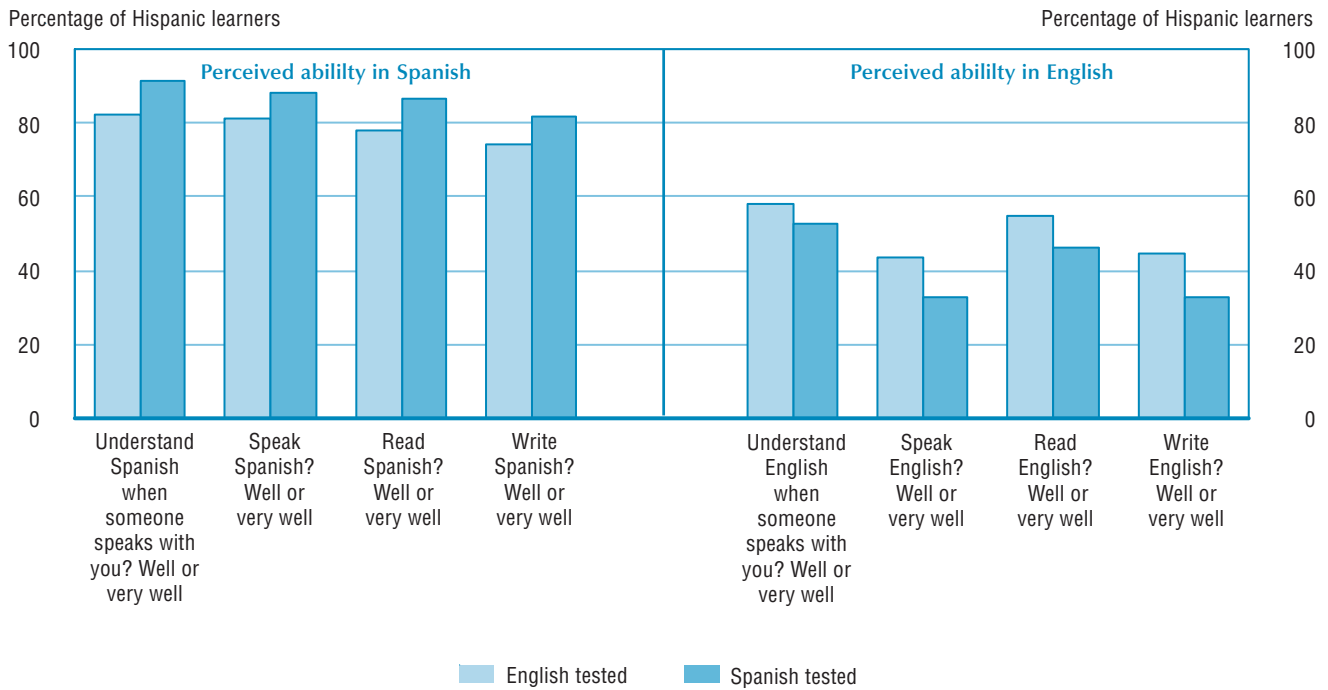
Lack of reading skills as adults could be related to earlier problems in school, going as far back as when first learning the basic skills of reading. Despite the low general performance previously found, only 21 percent of the English-tested and 16 percent of the Spanish-tested Hispanic adults reported that they remembered having had problems when they first learned to read the language in which they were tested, either English or Spanish (see Table 4.10). While a negative relationship was found between these early signs of problems and the performance of adults who were tested in Spanish, no relationships were found for those who were tested in English. These unclear results could be associated with the context of their early education, which for many of these adults took place in a different country. Countries vary not only in the methodologies used for teaching early reading but also on their policies for grade repetition. For example, forty-seven percent of the native Hispanic adult learners reported having repeated a grade while this was only 24 percent among non-native Hispanic adult learners.

<sup>55</sup> Learners who responded to background questions about their ability to understand, speak, read, or write English with the answers “very well” and “well” are reported as having good understanding or ability.

<sup>56</sup> Learners who responded to background questions about their ability to understand, speak, read, or write English with the answers “very well” and “well” are reported as having good understanding or ability.

Figure 4.6

Perceived ability in English and Spanish and skills on the prose literacy scale, Hispanic population



## Educational Attainment

Although it is interesting to look at the relationships between literacy performance and background characteristics, educational attainment remains an important variable in the development of literacy skills. Recent studies have shown that educational attainment of immigrants declined from 1970 to 1990. Immigrants in 1970 had a 30 percent higher risk of not completing high school, a risk that was 4 times higher in 1990 (Vernez, Krop, and Rydell 1999).<sup>57</sup> Educational attainment may be the variable most likely to vary between the adult learners and the general adult population because their lack of formal education, basic skills, or language fluency are likely reasons why these learners are enrolled in adult education programs.

This section considers the educational attainment of Hispanic adult learners. As shown in Figure 4.7, most learners completed relatively low levels of education in the United States.<sup>58</sup> As shown in Table 4.11, the relationship between levels of education and performance is clear until the completion of high school for categories with sufficient cases to result in reliable data. That is, the lowest performance was found for learners with no education in the United States and the highest performance was found for learners who were ready to complete or had completed high school.

As these data are specifically about education completed in the United States, they do not offer much insight into why these findings occurred. Consistent with the discussions from previous chapters, there are interpretation problems for these data because of the high percentage of non-native learners and the phrasing of the educational attainment question in the questionnaire. The questionnaire specifically asked for the highest level of education completed in the United States, a suitable question for native adult learners. However, for non-native adult learners this may differ as many completed education in their home country before immigrating. Consequently, over 62 percent of Hispanic adults responded “none,” as shown in Table 4.11. However, since over three quarters of these adults were non-native, many could have completed some education in their home country before immigrating. So, the approach taken to examine education is parallel to the approach taken in previous chapters, which is to look at the data from two different perspectives.

The first perspective includes native Hispanic learners. These learners have probably obtained their education in the United States. They represented only 23 percent of the learners tested in English and 11 percent of the learners tested in Spanish. For these learners, educational attainment was examined from their answers to the following question: What is the highest level of schooling you *completed in* the United States?

The second group includes non-native Hispanic learners. These learners most likely obtained their education in their home country before immigration, although some may have also completed some education in the United States after immigration. This group represented 77 percent of the learners who were tested in English and 89 percent of adult learners tested in Spanish. For these learners, educational attainment was examined from their answers to the following question: What was the highest

<sup>57</sup> These probabilities were 50 and 38 percent in 1970 and 30 and 13 percent in 1990.

<sup>58</sup> As will be explained later in this section, the model used here may underestimate the educational attainment of non-native adults who completed some education before immigrating to the United States. This analysis considers only education completed in the United States.

level of education you *completed before* you first immigrated to the United States? This model does not cover education completed by non-native adults after they immigrated to the United States and therefore, education for this group may be underestimated. Educational attainment data for Hispanic learners considering the place of birth are presented in Table 4.12.

Consistent with the findings from Chapter 2, overall, the population of non-native Hispanic learners completed higher levels of education in their own country than in the United States. Of the Hispanic adult learners tested in either English or Spanish, over 20 percent of those who were non-native completed high school before immigrating to the United States and over a quarter completed some education beyond high school, as shown in Figure 4.8. In fact, of the Hispanic adults tested in Spanish, only 2 percent of those who were non-native completed no education before immigration—contrasted with 15 percent of native learners who completed no education in the United States. The relationship between performance on the document literacy scale and educational attainment was less clear once the group was divided into native and non-native learners, and the testing language was considered. This was in part due to the very small sample sizes that did not allow for a full comparison.

**Figure 4.7**

**Highest level of education completed in the United States, Hispanic population**

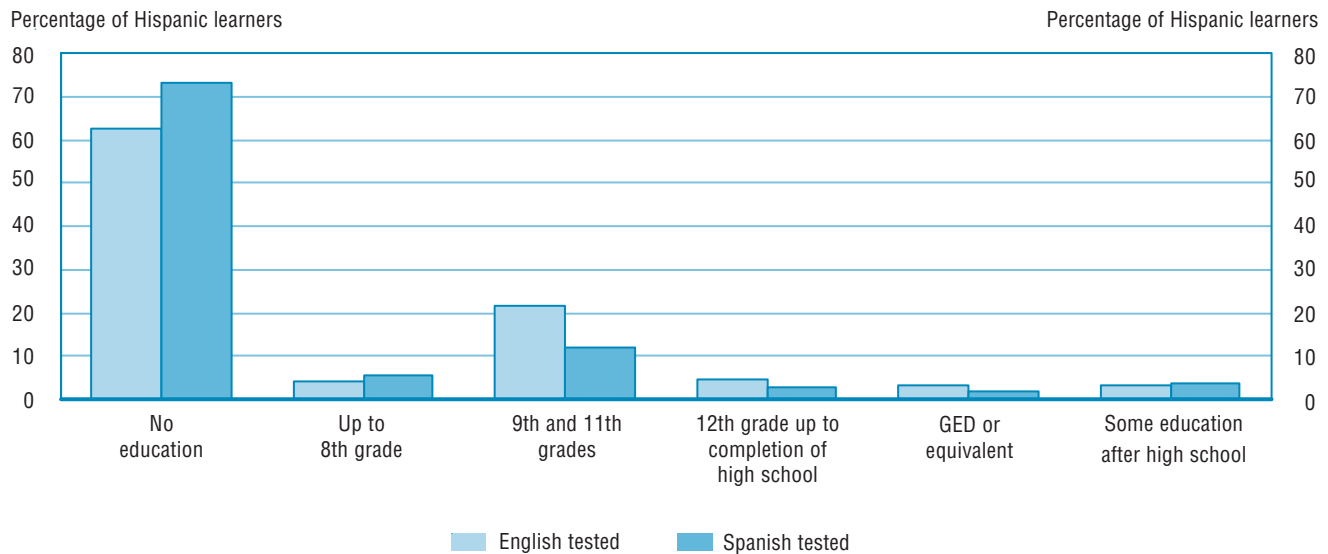
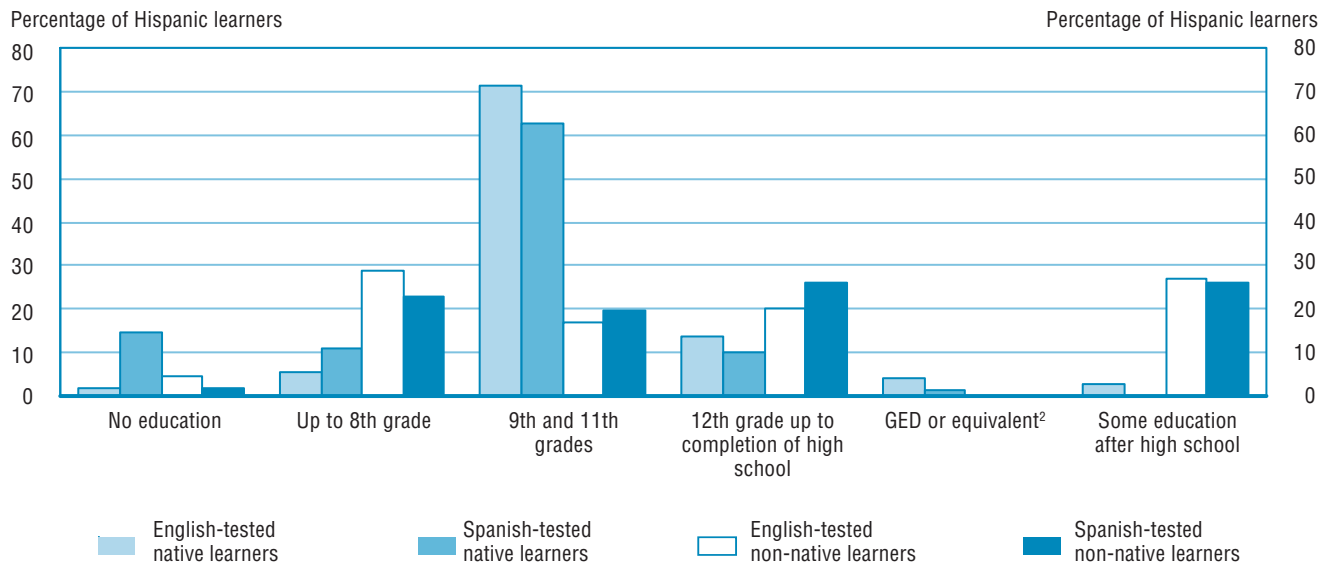


Figure 4.8

### Highest level of education considering the place of birth<sup>1</sup>, Hispanic population



1. The highest level of education completed in the United States is considered for native learners while the highest level of education completed before immigrating to the United States is considered for non-native learners.
2. Category non-existent for non-native learners.

Testing language clearly played a role in the performance of Hispanic adults. These adults performed better when tested in their mother tongue, a result that clearly suggests these learners were not equally proficient in both languages. As would be expected, adults attending ESL classes were likely to have lower English skills. However, the results also showed that language alone did not contribute to low literacy performance. Although many of these learners immigrated to the United States with some education in their home countries, they still lacked the necessary level of literacy skills required to succeed in American society and its labor markets. Language skills did not compensate for a lack of basic skills and vice versa. These Hispanic adult learners, particularly non-native Hispanic adults who do not speak English as their mother tongue, face the dual challenge of developing their English skills and acquiring basic levels of literacy.

## Comparisons between Hispanic Adult Learners in the United States and Adults in the General Population in a Region of Mexico

Results presented in this chapter have compared the performance of a subpopulation of Hispanic adults on English and Spanish versions of the AEPS instruments with those of the adult learner population as well as the general adult population in the United States. In an effort to provide a reference point for the literacy performance of Spanish-tested Hispanic adults, this section compares the literacy results from the Hispanic sample of the AEPS with results from a Spanish-speaking region that

participated in the ALL—Nuevo Leon, Mexico.<sup>59</sup> While it is important to remember that many Hispanic adults who immigrate to the United States come from countries other than Mexico, these results from the ALL allow a comparison with a Spanish-speaking population outside the United States.

The first panel of Figure 4.9 shows the average performance in prose and document literacy for four groups: (a) the overall adult population in the United States (U.S. ALL), (b) the overall adult population in the Spanish-speaking region of Nuevo Leon, Mexico (Nuevo Leon, ALL), (c) the Hispanic population of adult learners (AEPS) who were tested in Spanish, and (d) the Hispanic population of adult learners who were tested in English. This figure shows that the general adult population in the United States had the highest performance overall. When other variables such as educational attainment were considered, these results were not surprising and are mentioned here only as a reference (see Table 3.8 and Table 3.9). The emphasis of this section is on the comparison between the three Hispanic populations.

Among these three groups, it is possible to see that when tested in Spanish, adult learners in the United States had an average performance on the prose literacy scale that was not statistically different from the representative sample of adults from Nuevo Leon.<sup>60</sup> However, when Hispanic learners in the United States were tested in English, their performance on the prose literacy scale was statistically lower than both the U.S. Hispanic learners who were tested in Spanish and the adults in Nuevo Leon.<sup>61</sup>

The bottom panel of Figure 4.9 shows the distribution of adults by skill levels on the prose and document literacy scales for each group. About half of the general adult population in the United States performed at Levels 3 or higher on the prose and document literacy scales. In prose literacy, this compared with 11 percent of adults in Nuevo Leon, 10 percent of Hispanic adult learners who were tested in English, but 23 percent of Hispanic adult learners who were tested in Spanish. At the lower skill levels, 43 percent each of adults in Nuevo Leon and Hispanic AEPS adults who were tested in Spanish performed at Level 1 in prose literacy, a percentage that increased to 64 percent when Hispanic adult learners were tested in English (see Tables 4.1 and 4.3).

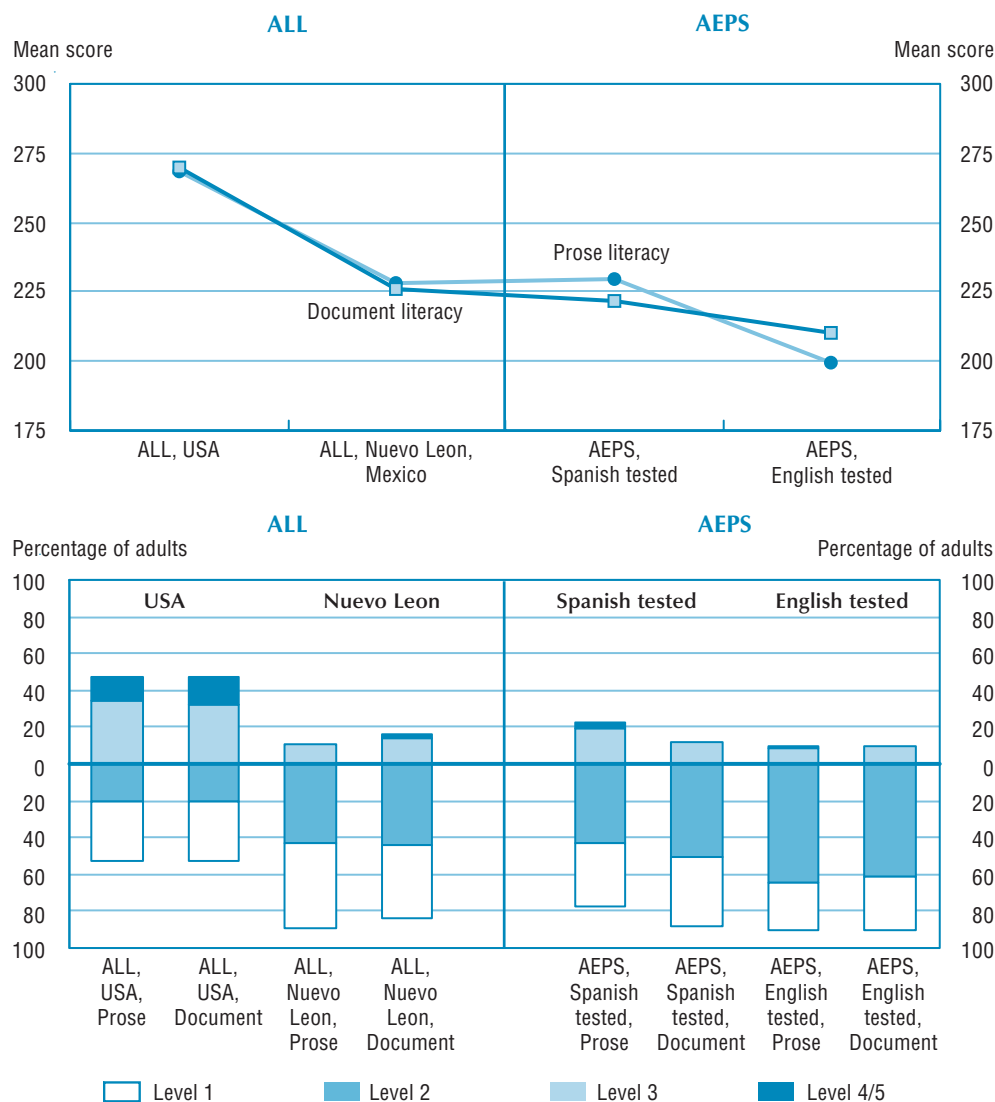
<sup>59</sup> The results from ALL for the United States and Nuevo Leon can be found in the report *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, with data for Nuevo Leon included for a small set of variables within that study (OECD and Statistics Canada 2005).

<sup>60</sup> Significance level of 5 percent.

<sup>61</sup> Significance level of 5 percent.

Figure 4.9

### Skills on the prose and document literacy scales, AEPS (Hispanic population, USA) and ALL (USA and Nuevo Leon, Mexico)



## Final Remarks

This chapter focused on exploring the impact of testing language on performance in prose and document literacy for Hispanic learners participating in adult education. The relationship between mother tongue, testing language and levels of literacy is complex and is influenced by a multitude of factors. The Hispanic learners differed on variables such as place of birth and mother tongue as well as educational attainment and, in many cases, these variables were interrelated.

In general, performance was better when these Hispanic learners were tested in their mother tongue, particularly in the domain of prose literacy. However, the performance levels of Hispanic adult learners who lived in the United States were still low compared to the general population of American adults. Alternatively, when

compared to the general adult population of Nuevo Leon in Mexico, non-native Hispanic learners who were tested in Spanish had similar levels of performance to the overall population of adults in this region of Mexico. This suggests that the non-native Hispanic adult learners in the United States were representative of adults in this Spanish-speaking region. This was contrary to what was found in the United States where there were large differences in performance between the overall population of adults and the population of participants in adult education programs. Even with the advantage of being tested in Spanish, the fact remained that these learners demonstrated low skill levels, which was also the case for adults in Nuevo Leon, Mexico when compared to the other six countries that participated in ALL (OECD and Statistics Canada 2005).

The fact that Hispanic adult learners in the United States attend the same programs as non-Hispanic learners but still performed at lower levels, even when tested in their mother tongue, suggests preexisting gaps in their educational experiences. Although these learners may lack English skills and therefore attend ESL classes; they also lack the literacy skills that tend to be more emphasized in ABE and ASE instruction. These gaps have important implications for instructional interventions. Although ESL instruction focuses on English language skills, the data suggest a need for a broader approach in order to equip these learners with the full range of skills they need to function effectively in American society. This poses an additional challenge for ESL students, who were already less likely to complete an educational level than ABE or ASE students, and suggests the need for further study and discussion of such issues by members of the adult education community.

# Appendices







# Appendix A1

## Reader's Guide

### List of Acronyms

|              |   |
|--------------|---|
| <b>ABE</b>   | Adult Basic Education   |
| <b>AEFLA</b> | Adult Education and Family Literacy Act, Title II of the Workforce Investment Act of 1998 |
| <b>AEPS</b>  | Adult Education Program Study   |

The AEPS consisted of two parts:

- The Program Survey—with data collected via the program questionnaire (see Appendix A2), and
- The Learner Survey—with data collected via the background questionnaire and the prose literacy, document literacy, and numeracy assessment tasks (see Appendix A3).

|             |   |
|-------------|---|
| <b>ALL</b>  | Adult Literacy and Life Skills Survey                               |
| <b>ASE</b>  | Adult Secondary Education   |
| <b>CBO</b>  | Community-based organizations, one type of adult education provider |
| <b>CC</b>   | Community colleges, one type of adult education provider            |
| <b>CI</b>   | Correctional institutions, one type of adult education provider     |
| <b>EA</b>   | Exercise administrators   |
| <b>ESL</b>  | English as a Second Language  |
| <b>IALS</b> | International Adult Literacy Survey                                 |
| <b>LEA</b>  | Local education agencies, one type of adult education provider      |
| <b>MOS</b>  | Measure of size   |
| <b>NALS</b> | National Adult Literacy Survey                                      |
| <b>NRS</b>  | National Reporting System   |
| <b>OECD</b> | Organisation for Economic Co-operation and Development              |
| <b>OVAE</b> | Office of Vocation and Adult Education                              |

|       |  |
|-------|--|
| PISA  | Programme for International Student Assessment   |
| PC    | Program Coordinator                              |
| PIRLS | Progress in International Reading Literacy Study |
| PPS   | Proportional-to-size                             |

## Rounding Procedures

When comparing data presented in the tables included in this report with the analysis of that data in the text, readers will find that, in some cases, figures in those tables may not exactly match those presented in the text. Totals, differences and averages were calculated on the basis of exact numbers (including decimals) and were rounded only after the calculations were completed, thus resulting in minor discrepancies. The complete set of data from the AEPS Program and Learner surveys, as well as data from the Adult Literacy and Life Skills Survey (ALL), can be accessed using an interactive data tool that can be found at [www.ets.org/etsliteracy](http://www.ets.org/etsliteracy).

## Glossary of Statistical Values Used in this Report

- Mean** Also known as the average, it is the sum of all values divided by the total number of values (i.e.,  $M = \Sigma X/N$ , where  $M$  represents the mean and  $N$  represents the sample size). It is highly affected by extreme values and consequently can be very misleading in skewed distribution (see the definition for skewness).
- Median** The median represents the middle of a distribution: half the values are above the median and half are below the median. The median is less sensitive to extreme scores than the mean, thus making it a better measure for highly skewed distributions (see the definition for the mean and skewness). Examples where the median is more informative than the mean include data on enrolment and income.
- Percentile** A percentile is typically defined as the value in a distribution that specifies a percentage of values that is smaller than it or equal to it. For example, the 10th percentile specifies the value where 10 percent of values are below and 90 percent of the values are above. The 90th percentile specifies the value where 90 percent of values are below and 10 percent of the values are above. The 50th percentile is equal to the median.
- Skewness** A distribution is skewed if one of its tails is longer than the other. A positively skewed distribution has a long tail in the positive direction (higher values), also referred to “skewed to the right.” A negatively skewed distribution has a long tail on the negative direction (lower values), also referred to “skewed to the left.” A symmetric distribution has no skew and the mean and median will have the same value. In skewed distributions, the mean, median, and mode will have different values.



# Appendix A2

## **AEPS Program Questionnaire**





## International Survey of Adults Adult Education Program Survey

The questions included here were developed by a panel of adult education program directors to collect information about several topics and issues important for future planning and funding, including: size and types of providers, instructional and support programs, staffing, assessments, and technology.

Questions should be answered with respect to services you provided to LEARNERS OR STUDENTS WHO YOU REPORTED TO YOUR STATE FOR THE NATIONAL REPORTING SYSTEM (NRS) DURING THE PROGRAM YEAR JULY 1, 2001 TO JUNE 30, 2002. Although you may provide other services to adults that are not funded through federal and/or state adult education grants, we are interested in the parts of your program which serve learners supported by and reported to the state for the National Reporting System.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0776. The time required to complete this information collection is estimated to average 180 minutes per response, including the time needed to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Washington, DC, 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: National Center for Education Statistics, U.S. Department of Education, 1990 K Street, NW, Washington, DC 20006.

OMB No. 1850-0776 • Approval expires xx/xx/xx

**I. SIZE AND TYPE OF PROVIDER**

This section asks questions about the numbers of adults your program serves, where they are served, and your program spending and sources of funding. (We would like responses only for the adults you serve who are reported to your state for the NRS.)

**Q1. What type of provider are you?**

Mark (X) only one provider type.

LEA (Local educational agency).....

CBO (Community-based organization).....

    ↳ **If CBO, are 50% or more of your learners served by volunteers?**.....  YES  NO

CC (Community college) .....

Correctional institution .....

Other<sup>1</sup> (SPECIFY) \_\_\_\_\_

**Q2. At how many sites<sup>2</sup> do you provide services?**

Enter number in box.

|\_|\_|\_| SITES

**Q3a. Considering all instructional services<sup>3</sup> provided by your program<sup>4</sup> in a typical week, what percentages are offered at the following kinds of sites?**

Enter percents for each type. If none, enter a zero.

|   |              |
|---|--------------|
| Public school.....  | _ _ _  %     |
| Community college .....   | _ _ _  %     |
| Library .....   | _ _ _  %     |
| Faith-based facility.....   | _ _ _  %     |
| Adult learning center (single-use facility).....                        | _ _ _  %     |
| Community center (multiple-use facility).....                           | _ _ _  %     |
| Clients' place of work in space provided by employer.....               | _ _ _  %     |
| Adult correctional facility .....                                       | _ _ _  %     |
| Learner's <sup>5</sup> home .....                                       | _ _ _  %     |
| Other (SPECIFY) _____   | _ _ _  %     |
| <b>TOTAL (of all instructional services provided in a typical week)</b> | <u>100</u> % |

<sup>1</sup> Other provider types may include public or private colleges or universities which are not community colleges, coalitions of adult providers, libraries, institutions for the disabled, or other providers of adult education services.

<sup>2</sup> "Sites" are defined as geographic locations.

<sup>3</sup> "Instructional services" include all ABE (Adult Basic Education), ASE (Adult Secondary Education), ESL (English as a Second Language), and EL (English Literacy) Civics classes and tutoring.

<sup>4</sup> "Program" refers to the aggregate of all sites your agency serves.

<sup>5</sup> A "learner" is an adult who receives at least twelve (12) hours of instruction. Work-based project learners are not included.

I. Size and Type of Provider

**Q3b. What percentage of learners served by your program in a typical week are served at the following kinds of sites?**

*Enter percents for each type. If none, enter a zero.*

|   |       |   |
|---|-------|---|
| Public school.....  | _ _ _ | % |
| Community college .....                                   | _ _ _ | % |
| Library .....   | _ _ _ | % |
| Faith-based facility.....                                 | _ _ _ | % |
| Adult learning center (single-use facility).....          | _ _ _ | % |
| Community center (multiple-use facility).....             | _ _ _ | % |
| Clients' place of work in space provided by employer..... | _ _ _ | % |
| Adult correctional facility .....                         | _ _ _ | % |
| Learner's home.....                                       | _ _ _ | % |
| Other (SPECIFY) _____                                     | _ _ _ | % |
| TOTAL (of all learners served in typical week)            | 100   |   |

I. Size and Type of Provider

**Q4. In the past year from July 1, 2001 to June 30, 2002, how have the following types of public and private community organizations been involved with your program?**

Mark (X) all that apply.

|  | Not involved with my program | Involved in planning | Involved in recruiting/referrals | Provided funding | Provided intake services | Provided staff, facilities, & other resources | Provided support services <sup>6</sup> | Provided transition services <sup>7</sup> | Data sharing <sup>8</sup> | Other (SPECIFY BELOW) |
|--|------------------------------|----------------------|----------------------------------|------------------|--------------------------|---|--|---|---------------------------|-----------------------|
| a. Local schools (including public voc-tech schools)                           |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| b. Community colleges  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| c. State and local employment and training agencies                            |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| d. Literacy councils/organizations   |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| e. Religious groups  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| f. Businesses  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| g. Labor unions  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| h. Foundations   |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| i. Workforce development investment boards                                     |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| j. Public libraries  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| k. Media organizations   |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| l. AmeriCorps  |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| m. Hospitals   |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| n. Other fraternal, voluntary or community-based organizations (SPECIFY) _____ |                              |                      |                                  |                  |                          |   |  |   |                           |                       |
| o. Other state and local agencies (SPECIFY) _____                              |                              |                      |                                  |                  |                          |   |  |   |                           |                       |

<sup>6</sup> Support services are services such as child care, transportation, psychological counseling, housing placement assistance.

<sup>7</sup> Transition services are services that promote movement from school to post-school activities, including post-secondary education, vocational training, integrated employment, continuing and adult education, adult services, independent living, or community participation.

<sup>8</sup> Data sharing is the linking of interagency databases through the adoption of common data standards, regular data transfers, mutually supporting data collection, and common reporting/distribution formats to increase efficiency of service delivery, and simultaneously protect rights to confidentiality.

I. Size and Type of Provider

**Q5. What was the total dollar amount your program received from all sources for ABE (Adult Basic Education), ASE (Adult Secondary Education), ESL (English as a Second Language), and EL (English Literacy) Civics instructional activities in the year from July 1, 2001 to June 30, 2002?**

*Enter dollar amount.*

\$|\_|\_|\_|,|\_|\_|\_|,|\_|\_|\_|.00

**Q6. How much of the total dollar amount listed in Q5 do you spend on the following items?**

*Answer using dollars or as a percentage, whichever is easier. If answering in dollars, total should equal amount reported in Q5.*

|  | Dollars              | or | Percentage    |
|--|----------------------|----|---------------|
| Administrative staff .....   | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Instructional staff (creation/delivery of instruction) .....           | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Instructional staff (professional development) .....                   | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Counseling staff .....   | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Clerical and other staff .....   | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Professional development services (excluding staff salaries) .....     | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Instructional materials/equipment .....                                | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Office equipment/furniture/supplies .....                              | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Instructional technology (hardware/software) .....                     | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Technology support services (including staff, consultants, etc.) ..... | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Facilities/utilities/custodial services .....                          | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Other (SPECIFY) _____  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Other (SPECIFY) _____  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| <b>TOTAL BUDGET</b>  |                      |    | <u>100%</u> % |

I. Size and Type of Provider

**Q7a. Of your budget (reported in Q5) for ABE, ASE, ESL, and EL Civics in the year from July 1, 2001 to June 30, 2002, approximately what percentage comes from each of the following sources?**

*Answer using dollars or as a percentage, whichever is easier. If answering in dollars, total should equal amount reported in Q5.*

|   | Dollars              | or | Percentage    |
|---|----------------------|----|---------------|
| Federal government (all sources) .....                  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| State government (all sources) .....                    | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Local government (all sources) .....                    | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Foundation grants .....                                 | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Corporate giving .....                                  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Civic/individual donations <sup>9</sup> .....           | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Fees charged to employers for workforce services .....  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Fees charged to volunteers for training/materials ..... | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Fees charged to learners [IF OTHER THAN 0, GO TO Q7b.]  | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| Other (SPECIFY) _____                                   | \$ _ _ _ , _ _ _ .00 |    | _ _ _  %      |
| <b>TOTAL BUDGET</b>                                     |                      |    | <u>100%</u> % |

**Q7b. For what percentage of learners in your program do you charge fees for the following items?**

*Enter percentage for each item. If none, enter 0.*

- Assessment ..... |\_|\_|\_| %
- Books and materials ..... |\_|\_|\_| %
- Tuition ..... |\_|\_|\_| %
- Other fees (SPECIFY) \_\_\_\_\_ |\_|\_|\_| %

**Q8a. Over and above the dollar amount provided in Q5, did you receive any non-cash in-kind and/or donated contributions?**

- YES (GO TO Q8b)
- NO (GO TO Q9)

<sup>9</sup> Civic donations may include, for example, United Way, Kiwanis Club, Rotary Club, etc.

I. Size and Type of Provider

**Q8b. For each type of in-kind service received, mark (X) one response.**

| <b><i>Instructional</i></b>  | YES                      | NO                       |
|--|--------------------------|--------------------------|
| Instructional materials (software, books, etc)                               | <input type="checkbox"/> | <input type="checkbox"/> |
| Technology support services (software development, professional development) | <input type="checkbox"/> | <input type="checkbox"/> |
| Hardware (computers used for instruction)                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| Classroom/laboratory space   | <input type="checkbox"/> | <input type="checkbox"/> |
| Administrative support (secretarial, copying)                                | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY)_____   | <input type="checkbox"/> | <input type="checkbox"/> |

| <b><i>Non-instructional</i></b>  | YES                      | NO                       |
|--|--------------------------|--------------------------|
| Technical assistance (legal, insurance, technology support)                  | <input type="checkbox"/> | <input type="checkbox"/> |
| Media services (electronic, print, broadcast)                                | <input type="checkbox"/> | <input type="checkbox"/> |
| Support services (e.g., childcare, transportation, psychological counseling) | <input type="checkbox"/> | <input type="checkbox"/> |
| Materials (office supplies, furniture)                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Hardware (computers used for administrative functions)                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Office space   | <input type="checkbox"/> | <input type="checkbox"/> |
| Facilities/utilities   | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY)_____   | <input type="checkbox"/> | <input type="checkbox"/> |

**II. INSTRUCTIONAL AND SUPPORT PROGRAMS**

This section asks questions about the types of learners being served and the instructional and other kinds of services being offered at your program. These answers will help us describe how programs across the country compare in terms of their students and services.

**Q9. Enter the number of learners for each of the categories listed, the total number of attendance hours, and calculate the percentage of learners completing each level. If you use this table for state and/or federal reporting, copy this information directly from the NRS reporting table 4. Use period from July 1, 2001 to June 30, 2002.**

| Entering Educational Functioning Level (A) | Total number enrolled (B) | Total attendance hours (C) | Number completed level (D) | Number who completed a level and advanced one or more levels (E) | Number separated before completed (F) | Number remaining within level (G) | Percentage completing level (H) |
|--|---------------------------|----------------------------|----------------------------|--|---------------------------------------|-----------------------------------|---------------------------------|
| ABE Beginning Literacy                     |                           |                            |                            |  |                                       |                                   |                                 |
| ABE Beginning Basic Education              |                           |                            |                            |  |                                       |                                   |                                 |
| ABE Intermediate Low                       |                           |                            |                            |  |                                       |                                   |                                 |
| ABE Intermediate High                      |                           |                            |                            |  |                                       |                                   |                                 |
| ASE Low                                    |                           |                            |                            |  |                                       |                                   |                                 |
| ASE High <sup>10</sup>                     |                           |                            |                            |  |                                       |                                   |                                 |
| ESL Beginning Literacy                     |                           |                            |                            |  |                                       |                                   |                                 |
| ESL Beginning                              |                           |                            |                            |  |                                       |                                   |                                 |
| ESL Intermediate Low                       |                           |                            |                            |  |                                       |                                   |                                 |
| ESL Intermediate High                      |                           |                            |                            |  |                                       |                                   |                                 |
| ESL Low Advanced                           |                           |                            |                            |  |                                       |                                   |                                 |
| ESL High Advanced                          |                           |                            |                            |  |                                       |                                   |                                 |
| <b>Total</b>                               |                           |                            |                            |  |                                       |                                   |                                 |

NOTES: The total in Column B should be unduplicated and equal the total in Column N entered in NRS Table 1 (see Question 10).

Column D is the total number of learners who completed a level, including learners who left after completing and learners who remain enrolled and moved to one or more higher levels.

Column E represents a subset of Column D (Number completed level) and are learners who completed a level and enrolled in one or more higher levels.

Column F are learners who left the program or received no services for 90 consecutive days and have no scheduled services.

Column D + F + G should equal the total in Column B.

Column G represents the number of learners still enrolled who are at the same educational level as when entering.

Each row total in Column H is calculated using the following formula: H = Column D/Column B.

<sup>10</sup>Completion of ASE High Level is attainment of a secondary credential or passing GED tests.

II. Instructional and Support Programs

**Q10. Please enter the number of learners by educational functioning level,<sup>11</sup> ethnicity,<sup>12</sup> and gender in your program. If you use this table for state and/or federal reporting, copy this information directly from the NRS reporting table 1. Use period from July 1, 2001 to June 30, 2002.**

| Entering Educational Functioning Level<br>(A) | American Indian or Alaskan Native |            | Asian    |            | Black or African American |            | Hispanic or Latino |            | Native Hawaiian or Other Pacific Islander |            | White    |            | Total <sup>13</sup> |
|---|-----------------------------------|------------|----------|------------|---------------------------|------------|--------------------|------------|---|------------|----------|------------|---------------------|
|   | Male (B)                          | Female (C) | Male (D) | Female (E) | Male (F)                  | Female (G) | Male (H)           | Female (I) | Male (J)                                  | Female (K) | Male (L) | Female (M) |                     |
| ABE Beginning Literacy                        |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ABE Beginning Basic Education                 |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ABE Intermediate Low                          |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ABE Intermediate High                         |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ASE Low                                       |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ASE High                                      |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL Beginning Literacy                        |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL Beginning                                 |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL Intermediate Low                          |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL Intermediate High                         |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL Low Advanced                              |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| ESL High Advanced                             |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |
| <b>Total</b>                                  |                                   |            |          |            |                           |            |                    |            |   |            |          |            |                     |

<sup>11</sup>See attached definitions (Appendix A) for educational functioning levels.

<sup>12</sup>A learner should be included in the racial/ethnic group to which he or she appears to belong, identifies with, or is regarded in the community as belonging.

<sup>13</sup>The total in Column N should be unduplicated.

II. Instructional and Support Programs

**Q11. In order to serve ABE, ASE, and ESL learners, does your program offer...**

For each item, mark (X) one response.

|   | <u>YES</u>               | <u>NO</u>                |
|---|--------------------------|--------------------------|
| Computer skills training, .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| EL Civics, .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| Family literacy <sup>14</sup> , .....                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| Incumbent worker training including work-based project learning, and..... | <input type="checkbox"/> | <input type="checkbox"/> |
| Workforce preparation? .....  | <input type="checkbox"/> | <input type="checkbox"/> |

**Q12. How many weeks were the following types of education classes<sup>15</sup> held at your program during the 52 weeks from July 1, 2001 to June 30, 2002?**

Enter number of weeks for each type. If classes not offered, enter a zero. If classes offered for entire year, enter 52.

|          | <u>WEEKS</u> |
|----------|--------------|
| ABE..... | _ _          |
| ASE..... | _ _          |
| ESL..... | _ _          |

**Q13. What percentage of classes at your program are scheduled for the following hours<sup>16</sup> during a typical week?**

For each type of class offered, enter a percent for each time category to equal 100%. If none in any category, enter a zero.

|                        | <u>ABE</u>   | <u>ASE</u>   | <u>ESL</u>   | <u>OTHER</u> |
|------------------------|--------------|--------------|--------------|--------------|
| 3 or fewer hours.....  | _ _ %        | _ _ %        | _ _ %        | _ _ %        |
| 4 to 6 hours.....      | _ _ %        | _ _ %        | _ _ %        | _ _ %        |
| 7 to 12 hours.....     | _ _ %        | _ _ %        | _ _ %        | _ _ %        |
| 13 to 19 hours.....    | _ _ %        | _ _ %        | _ _ %        | _ _ %        |
| 20 or more hours ..... | _ _ %        | _ _ %        | _ _ %        | _ _ %        |
| <b>TOTAL TIME</b>      | <b>100 %</b> | <b>100 %</b> | <b>100 %</b> | <b>100 %</b> |

<sup>14</sup>A family literacy program is characterized as incorporating the four essential elements of inter-generational education for parents and their children, including Adult Education, Children's Education, Parent and Child Together (PACT) Time and Parent Time, as defined by the National Center for Family Literacy.

<sup>15</sup>"Classes" are defined as any size group of learners taught by an instructor, or one-on-one tutoring between an instructor and a learner.

<sup>16</sup>For example, if half of your ABE students participate in classes that meet 3 days per week for two hours each day, you would write 50% in the 4-6 hours column for ABE; and, if 10% of your ABE students receive individual tutoring for two days per week for one hour per day, you would write 10% in the 3 or fewer hours column.



II. Instructional and Support Programs

**Q17. In which languages does your program offer literacy classes?**

Mark (X) all that apply.

|                       | <u>ABE</u>               | <u>ASE</u>               |
|-----------------------|--------------------------|--------------------------|
| English .....         | <input type="checkbox"/> | <input type="checkbox"/> |
| Spanish .....         | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____ | <input type="checkbox"/> | <input type="checkbox"/> |

**Q18. Does your program provide instructional services targeted for any of the following special populations?**

For each item, mark (X) one response.

|   | <u>Inclusion</u> <sup>17</sup> | <u>Special classes</u>   | <u>Do not serve</u>      |
|---|--------------------------------|--------------------------|--------------------------|
| Adults with learning disabilities .....                                 | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Adults with mental disabilities or traumatic brain injuries (TBI) ..... | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Adults with sensory disabilities such as hearing or vision .....        | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Displaced homemakers .....  | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Homeless or transient adults .....                                      | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Incarcerated adults .....   | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Migrant workers .....   | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Refugees .....  | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Temporary assistance to needy families (TANF) recipients .....          | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____   | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> |

**Q19. Estimate the number of learners from July 1, 2001 to June 30, 2002 that your program turned away because there was not enough capacity or classes were not offered.**

Enter number for each item. If none, enter 0.

|                       | <u>Classes not offered</u> | <u>Not enough capacity</u> |
|-----------------------|----------------------------|----------------------------|
| ABE .....             | _ _ _                      | _ _ _                      |
| ASE .....             | _ _ _                      | _ _ _                      |
| ESL .....             | _ _ _                      | _ _ _                      |
| Other (SPECIFY) _____ | _ _ _                      | _ _ _                      |

<sup>17</sup>“Inclusion” refers to a deliberate strategy of providing reasonable accommodation and assessments within regular classes for learners with special needs.

II. Instructional and Support Programs

**Q20. Does your program maintain a waiting list for any of the following instructional services?**

|                                       |  |                          | If yes, what was the typical number of people on your waiting list from July 1, 2001 to June 30, 2002?<br><i>Mark (X) one.</i> |                          |                          |                          |                          |
|---------------------------------------|--|--------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|
|                                       | NO   | YES                      | 1-50   | 51-100                   | 101-250                  | 250-1,000                | over 1,000               |
| <b>Q20a. ABE</b>                      | <input type="checkbox"/><br>(SKIP TO Q20b) | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Q20b. ASE</b>                      | <input type="checkbox"/><br>(SKIP TO Q20c) | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Q20c. ESL</b>                      | <input type="checkbox"/><br>(SKIP TO Q20d) | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Q20d. Other (SPECIFY)</b><br>_____ | <input type="checkbox"/><br>(SKIP TO Q21a) | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q21a. Does your program provide learners with the following services?**

*For each item, mark (X) one response.*

|                                | YES<br>at no<br>charge   | YES<br>for fee           | NO                       |
|--------------------------------|--------------------------|--------------------------|--------------------------|
| Child care.....                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Health services .....          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Housing search/placement ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Job search assistance .....    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Job placement.....             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Psychological counseling.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Transportation.....            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Translator services.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

*IF NO FOR ALL ITEMS IN Q21a, SKIP TO Q22a.*

**Q21b. If yes to any service in Q21a, in what percentage of your sites are these services available?**

*Enter percent for each item. If none, enter 0.*

|                                |         |
|--------------------------------|---------|
| Child care.....                | _ _ _ % |
| Health services .....          | _ _ _ % |
| Housing search/placement ..... | _ _ _ % |
| Job search assistance .....    | _ _ _ % |
| Job placement.....             | _ _ _ % |
| Psychological counseling.....  | _ _ _ % |
| Transportation.....            | _ _ _ % |
| Translator services.....       | _ _ _ % |

II. Instructional and Support Programs

**Q21c. If yes to any service in Q21a, what percentage of your learners make use of these services?**

Enter percent for each item. If none, enter 0.

|                                |         |
|--------------------------------|---------|
| Child care.....                | _ _ _ % |
| Health services .....          | _ _ _ % |
| Housing search/placement ..... | _ _ _ % |
| Job search assistance .....    | _ _ _ % |
| Job placement.....             | _ _ _ % |
| Psychological counseling.....  | _ _ _ % |
| Transportation.....            | _ _ _ % |
| Translator services.....       | _ _ _ % |

**Q22a. Does your program recruit learners?**

Mark (X) one.

- YES
- NO → (SKIP TO Q23)

**Q22b. Does your program recruit for any of the following instructional programs?<sup>18</sup>**

|   | <u>YES</u>               | <u>NO</u>                |
|---|--------------------------|--------------------------|
| <b>Adult Basic Education</b>              |                          |                          |
| ABE Beginning.....                        | <input type="checkbox"/> | <input type="checkbox"/> |
| ABE Intermediate.....                     | <input type="checkbox"/> | <input type="checkbox"/> |
| ABE High .....                            | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>English as a Second Language</b>       |                          |                          |
| ESL Beginning .....                       | <input type="checkbox"/> | <input type="checkbox"/> |
| ESL Intermediate .....                    | <input type="checkbox"/> | <input type="checkbox"/> |
| ESL High.....                             | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>English Literacy Civics</b> .....      | <input type="checkbox"/> | <input type="checkbox"/> |
| Program does not offer these courses..... | <input type="checkbox"/> | <input type="checkbox"/> |

<sup>18</sup>See attached definitions (Appendix A) for educational functioning levels.

II. Instructional and Support Programs

**Q22c. To what extent do you rely on the following strategies to recruit potential adult education learners?**

*For each item, mark (X) one response. In responding, assume that “very little” means less than 10% of the time; “some” means 10-30% of the time, and “a great deal” means more than 30% of the time. Responses to this question should reflect approximately 100% of the recruitment strategies within your program. For example, “a great deal” would not be indicated in one program for more than 3 to 4 learning recruitment strategies.*

|   | <u>Not<br/>At All</u>    | <u>Very Little<br/>&lt;10%</u> | <u>Some<br/>10-30%</u>   | <u>A Great<br/>Deal<br/>&gt;30%</u> |
|---|--------------------------|--------------------------------|--------------------------|-------------------------------------|
| 1. Announcements in mass media (TV, radio).....                           | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2. Announcements in newspapers.....                                       | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3. Flyers, posters, mailings .....  | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4. Referrals from welfare, social agencies, or<br>community programs..... | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 5. Referrals from one-stops.....  | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 6. Recruitment by co-sponsoring groups .....                              | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 7. Outreach/presentations by staff .....                                  | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 8. Organized recruitment by current clients .....                         | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 9. Recommendations by current clients.....                                | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10. Local residents used as recruitment aides.....                        | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 11. Internet announcements .....  | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 12. Other (SPECIFY) _____   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |
| 13. Other (SPECIFY) _____   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/>            |

**Q22d. Which one of the above recruitment strategies is most effective in your program?**

*Enter a number from the list in Q22c (1 through 13).*

|\_|\_| RECRUITMENT STRATEGY

**Q22e. Does your program recruit learners in languages other than English?**

*Mark (X) one.*

- YES
- NO

### III. STAFFING

This section asks questions about the numbers and backgrounds of staff people working in your program. These questions will help us provide information about the education, credentials, and responsibilities of staff within adult education programs.

**Q23. What is the total number of staff in your program?**

Enter a number for each item. If none, enter 0.

| <u>PAID STAFF</u>              |                  | <u>VOLUNTEER STAFF</u> |
|--------------------------------|------------------|------------------------|
| <u>FULL-TIME</u> <sup>19</sup> | <u>PART-TIME</u> |                        |
| _ , _ _ _                      | _ , _ _ _        | _ _ _                  |

**Q24. Within your program, what is the number of staff who are primarily...**

Enter a number for each item. If none, enter 0.

|  | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|--|-------------------|------------------|------------------------|
|  | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| Administrators,.....                             | _ _ _             | _ _ _            | _ _ _                  |
| Instructors,.....                                | _ _ _             | _ _ _            | _ _ _                  |
| Instructional aides,.....                        | _ _ _             | _ _ _            | _ _ _                  |
| Counselors,.....                                 | _ _ _             | _ _ _            | _ _ _                  |
| Clerical staff, or.....                          | _ _ _             | _ _ _            | _ _ _                  |
| Instructional support staff <sup>20</sup> ?..... | _ _ _             | _ _ _            | _ _ _                  |

**Q25. For your current adult education instructional program, what is the number of instructors who...**

Enter a number for each item. If none, enter 0.

**Q25a. Have taught classes in your program...**

|  | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|--|-------------------|------------------|------------------------|
|  | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| 1 year or less, .....                            | _ _ _             | _ _ _            | _ _ _                  |
| More than 1 year but less than<br>4 years, ..... | _ _ _             | _ _ _            | _ _ _                  |
| 4 years but less than 10 years, or .....         | _ _ _             | _ _ _            | _ _ _                  |
| 10 years or more?.....                           | _ _ _             | _ _ _            | _ _ _                  |

<sup>19</sup>Full-time is defined as 35 or more hours per week.

<sup>20</sup> Instructional support staff provide services related to instruction such as technology assistance assessment of students, etc., but generally do so outside of the classroom or in addition to instructors and aides.

III. Staffing

**Q25b. Teach...**

|                          | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|--------------------------|-------------------|------------------|------------------------|
|                          | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| ABE only, .....          | _ _ _             | _ _ _            | _ _ _                  |
| ASE only, .....          | _ _ _             | _ _ _            | _ _ _                  |
| ESL only, .....          | _ _ _             | _ _ _            | _ _ _                  |
| EL Civics only, .....    | _ _ _             | _ _ _            | _ _ _                  |
| ABE & ASE only, or ..... | _ _ _             | _ _ _            | _ _ _                  |
| Other combinations?..... | _ _ _             | _ _ _            | _ _ _                  |

**Q26a. Are there minimum educational requirements for instructional staff in your program?**

Mark (X) YES or NO for both paid and volunteer staff.

| <u>PAID STAFF</u>            |                             |                              |                             | <u>VOLUNTEER STAFF</u>       |                             |
|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|
| <u>FULL-TIME</u>             |                             | <u>PART-TIME</u>             |                             |                              |                             |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO |

(IF NO FOR ALL ITEMS IN Q26a, SKIP TO Q27)

**Q26b. If yes to any of the categories in Q26a, what are the minimum educational requirements for...**

**Q26b1. ABE instructors?**

Mark (X) for all that apply.

|  | <u>PAID STAFF</u>        |                          | <u>VOLUNTEER STAFF</u>   |
|--|--------------------------|--------------------------|--------------------------|
|  | <u>FULL-TIME</u>         | <u>PART-TIME</u>         |                          |
| High school diploma or equivalent..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Some college (including AA) .....      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BA/BS .....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MA or higher .....                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| K-12 certification .....               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Adult education certification.....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Special education certification .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

III. Staffing

**Q26b2. ASE instructors?**

Mark (X) for all that apply.

|  | <u>PAID STAFF</u>        |                          | <u>VOLUNTEER STAFF</u>   |
|--|--------------------------|--------------------------|--------------------------|
|  | <u>FULL-TIME</u>         | <u>PART-TIME</u>         |                          |
| High school diploma or equivalent..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Some college (including AA) .....      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BA/BS .....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MA or higher .....                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| K-12 certification .....               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Adult education certification.....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Special education certification .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q26b3. ESL instructors?**

Mark (X) for all that apply.

|  | <u>PAID STAFF</u>        |                          | <u>VOLUNTEER STAFF</u>   |
|--|--------------------------|--------------------------|--------------------------|
|  | <u>FULL-TIME</u>         | <u>PART-TIME</u>         |                          |
| High school diploma or equivalent..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Some college (including AA) .....      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BA/BS .....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MA or higher .....                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| K-12 certification .....               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Adult education certification.....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Special education certification .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q27. What percentage of your instructional staff left permanently during the program year from July 1, 2001 to June 30, 2002?**

Enter percentage for type of staff. If no staff of that type left during the past year, enter 0.

Paid full-time staff ..... |\_|\_|\_|%

Paid part-time staff ..... |\_|\_|\_|%

Volunteer staff ..... |\_|\_|\_|%

III. Staffing

**Q28. What certification credentials have your instructors obtained<sup>21</sup>?**

*Enter number of staff for each item. If none, enter 0.*

**Q28a. ABE instructors:**

|                                       | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|---------------------------------------|-------------------|------------------|------------------------|
|                                       | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| K-12 certification .....              | _ _ _             | _ _ _            | _ _ _                  |
| Adult education certification.....    | _ _ _             | _ _ _            | _ _ _                  |
| Special education certification ..... | _ _ _             | _ _ _            | _ _ _                  |

**Q28b. ASE instructors:**

|                                       | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|---------------------------------------|-------------------|------------------|------------------------|
|                                       | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| K-12 certification .....              | _ _ _             | _ _ _            | _ _ _                  |
| Adult education certification.....    | _ _ _             | _ _ _            | _ _ _                  |
| Special education certification ..... | _ _ _             | _ _ _            | _ _ _                  |

**Q28c. ESL instructors:**

|                                       | <u>PAID STAFF</u> |                  | <u>VOLUNTEER STAFF</u> |
|---------------------------------------|-------------------|------------------|------------------------|
|                                       | <u>FULL-TIME</u>  | <u>PART-TIME</u> |                        |
| K-12 certification .....              | _ _ _             | _ _ _            | _ _ _                  |
| Adult education certification.....    | _ _ _             | _ _ _            | _ _ _                  |
| Special education certification ..... | _ _ _             | _ _ _            | _ _ _                  |
| TESOL certification.....              | _ _ _             | _ _ _            | _ _ _                  |

**Q29. Do you provide initial orientation for new instructors?**

*Please mark (X) one.*

- YES
- NO

<sup>21</sup>Persons in this part of the question can be listed more than once if they have more than one credential.

III. Staffing

**Q30. Does your program require instructional staff to complete a minimum number of in-service training hours per year?**

*Please mark (X) one.*

- YES
- NO

**Q31. Does your instructional staff get paid for participating in in-service training programs?**

*Please mark (X) one.*

- YES
- NO

**IV. ROLE AND USES OF ASSESSMENTS**

This section asks questions about the different kinds of assessments used and the different uses for assessment information in your program.

**Q32. For each of the instructional programs listed below, does your program have a standardized intake/orientation process that all new learners are required to take?**

|  | NO  | YES                      | If yes, does this intake/orientation process, on average last...<br><i>Mark (X) one.</i> |   |                                       |                          | Over what period of time does this intake/orientation process take place?<br><i>Mark (X) one.</i> |                                      |                          |                          |
|--|---|--------------------------|--|---|---------------------------------------|--------------------------|---|--------------------------------------|--------------------------|--------------------------|
|  |   |                          | 2 hours or less  | More than 2 hours but less than 4 hours | 4 hours or more but less than 7 hours | 7 hours or more          | 1 day or less   | More than 1 day but less than 3 days | 3 days                   | More than 3 days         |
| <b>Q32a. ABE</b>   | <input type="checkbox"/><br>(SKIP TO Q32b)                  | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/>                | <input type="checkbox"/>              | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>             | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Q32b. ASE</b>   | <input type="checkbox"/><br>(SKIP TO Q32c)                  | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/>                | <input type="checkbox"/>              | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>             | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Q32c. ESL</b>   | <input type="checkbox"/><br>(SKIP TO Q33)                   | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/>                | <input type="checkbox"/>              | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>             | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Does your program offer this intake/orientation process in any language other than English?</b> | <input type="checkbox"/> YES<br><input type="checkbox"/> NO |                          |  |   |                                       |                          |   |                                      |                          |                          |

**Q33. Does your program require screening for the following disabilities...**

**Q33a. Sensory disabilities (including hearing/vision)?**

YES  \_\_\_\_\_ → **Is your screening...**  
 NO  (SKIP TO Q33b)

Physical exam, .....   
 Self-reported, or.....   
 Other, (SPECIFY)? \_\_\_\_\_

**Q33b. Learning disabilities?**

YES  \_\_\_\_\_ → **Is your screening...**  
 NO  (SKIP TO Q33c)

Cognitive/clinical instruments, .....   
 Self-reported, or.....   
 Other, (SPECIFY)? \_\_\_\_\_

IV. Role and Uses of Assessments

**Q33c. Mental disabilities?**

YES  —————> **Is your screening...**  
 NO  (SKIP TO Q34)

Cognitive/clinical instruments, .....   
 Self-reported, or.....   
 Other, (SPECIFY)? \_\_\_\_\_

**Q34. Do you feel your program has places to refer learners who are identified with disabilities?**

*Please mark (X) one.*

YES  
 NO

**Q35. Which of the following tests does your program use for state and/or federal reporting (such as NRS) and for which types of instructional programs are these tests used?**

*Mark (X) all that apply.*

|   | <u>ABE</u>               | <u>ASE</u>               | <u>ESL</u>               |
|---|--------------------------|--------------------------|--------------------------|
| ABLE (Adult Basic Learning Exam).....                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| AMES (Adult Measure of Essential Skills).....               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BEST (Basic Elementary Skills Test) .....                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CASAS (Comprehensive Adult Student Assessment System) ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| TABE (Test of Adult Basic Education).....                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q36. On average, how many hours of classroom instruction do the learners in your program receive between pre-testing and post-testing as reported to the NRS?**

*Mark (X) one response for each group.*

|                          | <u>ABE</u>               | <u>ASE</u>               | <u>ESL</u>               |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Less than 30 hours ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 30-50 hours.....         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 51-80 hours.....         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 81-99 hours.....         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 100 or more hours .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

IV. Role and Uses of Assessments

**Q37a. Does your program use standardized tests for any of the following purposes (excluding NRS reporting)?**

Mark (X) all that apply.

- YES → Adapting instruction.....
- Monitoring learner improvement.....
- Placement.....
- Screening.....
- Other (SPECIFY) \_\_\_\_\_
- NO → (SKIP TO Q38a)

**Q37b. If any of the options in Q37a are checked, which of the following measures do you use in each type of instructional program?**

Mark (X) all that apply.

|  | <u>ABE</u>               | <u>ASE</u>               | <u>ESL</u>               |
|--|--------------------------|--------------------------|--------------------------|
| ABLE (Adult Basic Learning Exam).....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| AMES (Adult Measure of Essential Skills).....                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BEST (Basic Elementary Skills Test).....                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CASAS (Comprehensive Adult Student Assessment System).....           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ESLOA (English As A Second Language Oral Assessment).....            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GATES (Gates-MacGinitie Reading Tests).....                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Practice GED (General Educational Development) Tests.....            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ITBS (Iowa Test of Basic Skills).....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| NYSPlace (New York State Placement Test for Adult ESL Students)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| PPVT (Peabody Picture Vocabulary Test).....                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| TABE (Test of Adult Basic Education).....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| TOWRE (Test of Word Reading Efficiency).....                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Woodcock/Johnson (Woodcock-Johnson Psychoeducational Battery).....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| WRAT (Wide Range Achievement Test).....                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Behavioral checklists.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Informal inventories.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Program wide portfolio.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Teacher made achievement tests.....                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q38a. Does your program require standardized testing for ESL students?**

Please mark (X) one.

- YES
- NO → (SKIP TO Q39)
- DO NOT SERVE ESL LEARNERS (SKIP TO Q39)

IV. Role and Uses of Assessments

**Q38b. What kinds of testing do you require?**

Mark (X) all that apply.

- English Speaking Proficiency .....
- English Listening Proficiency .....
- English Literacy Proficiency .....
- Native Language Literacy Proficiency .....
- Other (SPECIFY) \_\_\_\_\_

**Q39a. Does your program require learners to receive feedback from tests or assessments?**

Please mark (X) one.

- YES
- NO → (SKIP TO Q40)

**Q39b. What form does this feedback take?**

Mark (X) all that apply.

- Written report .....
- Interview with teacher or counselor .....
- Receive standardized test scores .....
- Informal .....

**Q40. Has your program undergone any of the following types of formal evaluation<sup>22</sup> within the past three years?**

For each item mark (X) one response.

|  | <u>YES</u>               | <u>NO</u>                |
|--|--------------------------|--------------------------|
| Improvement of delivery of services .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| Learner feedback .....                     | <input type="checkbox"/> | <input type="checkbox"/> |
| Teacher feedback .....                     | <input type="checkbox"/> | <input type="checkbox"/> |
| State or federal reviews/inspections ..... | <input type="checkbox"/> | <input type="checkbox"/> |
| Third party evaluations .....              | <input type="checkbox"/> | <input type="checkbox"/> |

<sup>22</sup>A formal evaluation results in a written report designed to provide judgement in feedback about one or more aspects of your program.

**V. TECHNOLOGY**

Technology is gaining increasing importance in educational programs and the questions in this section will provide baseline data about the use of technology in adult education programs.

**Q41a. For the three groups listed below (learners, instructional staff, administrative staff), indicate if each uses computers for any of the following purposes?**

Mark (X) one for each item.

|                                | Administrative activities (e.g., letter/report writing, recordkeeping) | Instructional activities(e.g., classroom instruction, preparing materials) | Assessment activities (e.g., testing, advising, placement) | Internet related activities (e.g., email, web searches)  |
|--------------------------------|--|--|--|--|
| <b>1. Learners</b>             | <input type="checkbox"/> YES <input type="checkbox"/> NO               | <input type="checkbox"/> YES <input type="checkbox"/> NO                   | <input type="checkbox"/> YES <input type="checkbox"/> NO   | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <b>2. Instructional staff</b>  | <input type="checkbox"/> YES <input type="checkbox"/> NO               | <input type="checkbox"/> YES <input type="checkbox"/> NO                   | <input type="checkbox"/> YES <input type="checkbox"/> NO   | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <b>3. Administrative staff</b> | <input type="checkbox"/> YES <input type="checkbox"/> NO               | <input type="checkbox"/> YES <input type="checkbox"/> NO                   | <input type="checkbox"/> YES <input type="checkbox"/> NO   | <input type="checkbox"/> YES <input type="checkbox"/> NO |

**Q41b. What percentage of learners in your program use computers during instruction?**

Enter percent. If none, enter 0.

- Adult Basic Education..... |\_|\_|\_|%
- Adult Secondary Education ..... |\_|\_|\_|%
- English as a Second Language..... |\_|\_|\_|%
- English Literacy Civics..... |\_|\_|\_|%

**Q42. Who provides technical support/assistance in your program?**

No technical support/assistance provided. (SKIP TO Q43a) ....

Otherwise, mark (X) all that apply below.

- Full-time technology specialist(s) .....
- Part-time technology specialist(s).....
- Full-time staff member(s).....
- Part-time staff member(s).....
- Volunteer(s) .....
- Outside consultant(s).....
- Other (SPECIFY) \_\_\_\_\_

V. Technology

**Q43a. Do your instructors receive any formal technology training?**

Mark (X) one.

- YES
- NO → (SKIP TO Q44)

**Q43b. Who provides the training?**

Mark (X) one.

- Product vendors.....
- Program staff .....
- Community/state trainers.....
- Outside trainer/consultant.....
- Other (SPECIFY) \_\_\_\_\_

**Q44. Does your program use any specially designed software for adult education in any of the following areas?**

No specially designed software is used. (SKIP TO Q44).....

Otherwise, mark (X) all that apply below.

- Reading .....
- Math.....
- Writing.....
- GED preparation.....
- Assessment .....
- Life skills .....
- Vocational/work-related training .....
- Guidance/career options .....
- ESL .....
- Other (SPECIFY) \_\_\_\_\_

**Q45. Which of the following video materials do your sites use and for which types of instructional programs are these materials used?**

No video materials used. (SKIP TO Q46).....

Otherwise mark (X) all that apply below.

|                            | ABE                      | ASE                      | ESL                      |
|----------------------------|--------------------------|--------------------------|--------------------------|
| Crossroads Café.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| On Common Ground .....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Workplace Essentials ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| TV411 .....                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| English for All.....       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| GED on TV .....            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (SPECIFY) _____      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

V. Technology

**Q46. How would you rate the overall capability of your program’s computers (hardware/software) to meet the needs of each of the groups listed below?**

Mark (X) all that apply.

|  |                          | <u>Instructional</u>     | <u>Administrative</u>    |
|--|--------------------------|--------------------------|--------------------------|
|  | <u>Learners</u>          | <u>Staff</u>             | <u>Staff</u>             |
| a. Does not meet present needs and priorities .....                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Meets present needs but will need upgrading within the next three years ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Q47. Do you use any of the following distance education technologies for instructional purposes with learners in your program?**

Mark (X) all that apply.

|   | <u>Learners</u><br><u>On-Site</u> | <u>Learners</u><br><u>Off-Site</u> | <u>Not Used</u>          |
|---|-----------------------------------|------------------------------------|--------------------------|
| Broadcast/cable/satellite television..... | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |
| Videoconferencing .....                   | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |
| Audio/teleconferencing .....              | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |
| Web cast .....                            | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |
| On-line learning .....                    | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |
| Other (SPECIFY) _____                     | <input type="checkbox"/>          | <input type="checkbox"/>           | <input type="checkbox"/> |

**Q48a. Does your program have a formal technology plan?<sup>23</sup>**

Mark (X) one.

- YES
- NO → (SKIP TO Q49)

**Q48b. Which of the following characteristics are included in your technology plan?**

Mark (X) all that apply.

- Evaluation and purchase of hardware .....
- Evaluation and purchase of software .....
- Integration into instructional programs .....
- Management information systems.....
- Staff training.....
- Maintenance and upgrade of systems.....
- Use policies .....
- Security .....
- Other (SPECIFY) \_\_\_\_\_
- Other (SPECIFY) \_\_\_\_\_

<sup>23</sup>A formal technology plan is a written document outlining the plans for procurement and use of technology within a program.

V. Technology

**Q49. Who is involved in making decisions about hardware and software purchases?**

*Mark (X) all that apply.*

- Advisory board/board of directors.....
- Funding agency .....
- Instructors .....
- Program director .....
- Supervisors (e.g., dean, executive director).....
- Learners.....
- Technology specialist/coordinator .....
- Other program staff.....
- Other (SPECIFY) \_\_\_\_\_

**Q50. Rank the top three statements below as to their importance in the expansion of computer technology in your program.**

*Rank the top three statements, using 1=most important, 2=second most important, 3=third most important. Mark (X) only three.*

- Integration of technology into instruction ..... |\_\_|
- Financial resources..... |\_\_|
- Time for staff to learn how to use computers ..... |\_\_|
- Availability of training for staff/instructors ..... |\_\_|
- Staff/instructors willingness to use computers ..... |\_\_|
- Federal/state policies on the purchase of technology ..... |\_\_|
- Availability of technology support staff ..... |\_\_|
- Security for equipment..... |\_\_|
- Expanding technology use is not a program priority ..... |\_\_|
- Other (SPECIFY) \_\_\_\_\_ |\_\_|

**THANK YOU FOR COMPLETING THIS SURVEY.  
PLEASE RETURN THE SURVEY IN THE ENVELOPE PROVIDED OR MAIL TO:**



# Appendix A3

## **AEPS Background Questionnaire**



# Adult Education Program Study



## Background Questionnaire

PROGRAM ID |\_|\_|\_|\_|\_|

SITE ID |\_|\_|\_|

CLASS ID |\_|\_|

SP LINE NUMBER |\_|\_|\_|

ADMINISTRATOR NAME \_\_\_\_\_

ADMINISTRATOR ID # |\_|\_|\_|

SP FIRST NAME: \_\_\_\_\_

DATE |\_|\_| - |\_|\_| - |\_|\_|\_|\_|

START TIME |\_|\_|:|\_|\_|      am  
   pm

END TIME |\_|\_|:|\_|\_|      am  
   pm

### SP PROGRAM TYPE:

ESL        ABE       ASE

- BEGINNING ESL
- LOW INTERMEDIATE ESL
- HIGH INTERMEDIATE ESL
- LOW ADVANCED ESL
- HIGH ADVANCED ESL



The United States Department of Education  
The National Center for Education Statistics

**SECTION A: GENERAL AND LANGUAGE BACKGROUND**

I'd like to ask you some questions about your background and your language use.

A1. On what date were you born? (Please tell us the month, day, and year you were born).

|       |     |      |   |   |   |
|-------|-----|------|---|---|---|
| _     | _   | _    | _ | _ | _ |
| MONTH | DAY | YEAR |   |   |   |

- REFUSED DAY ..... 01
- REFUSED MONTH ..... 02
- REFUSED YEAR..... 03
- DON'T KNOW ..... 99

A2. Were you born in the United States, that is, in one of the 50 states or the District of Columbia?

- YES ..... 01 (A5)
- NO ..... 02
- REFUSED ..... 99
- DON'T KNOW ..... 98

A3. In what year did you **first** immigrate to the United States?

- UNITED STATES CITIZEN BY BIRTH ... 01
- YEAR (SPECIFY) |\_|\_|\_|\_| ..... 02 \_\_\_\_\_
- REFUSED ..... 98
- DON'T KNOW ..... 99

A4. What was the highest level of education you **completed** before you first immigrated to the United States?

IF RESPONSE DOES NOT FIT CATEGORIES, PROBE FOR U.S. EQUIVALENT.

- DID NOT ATTEND SCHOOL BEFORE COMING TO THE UNITED STATES ..... 01
- PRIMARY (GRADES K-3) ..... 02
- ELEMENTARY (GRADES 4-8) ..... 03
- SOME SECONDARY (GRADES 9-11) ..... 04
- COMPLETED SECONDARY BUT NO DIPLOMA ..... 05
- COMPLETED SECONDARY WITH DIPLOMA (HIGH SCHOOL DIPLOMA)..... 06
- VOCATIONAL/TECHNICAL PROGRAM AFTER HIGH SCHOOL BUT NO DIPLOMA ..... 07
- VOCATIONAL/TECHNICAL DIPLOMA AFTER HIGH SCHOOL ..... 08
- SOME COLLEGE BUT NO DEGREE ..... 09
- ASSOCIATE'S DEGREE ..... 10
- BACHELOR'S DEGREE ..... 11
- OTHER (SPECIFY) \_\_\_\_\_ 12 \_\_\_\_\_
- REFUSED..... 98
- DON'T KNOW ..... 99

A5. What is the language that you first learned at home in childhood and still understand?  
 MARK ONE ONLY UNLESS TWO LANGUAGES LEARNED AT PRECISELY THE SAME TIME.

- ENGLISH..... 01
- SPANISH..... 02
- FRENCH..... 03
- GERMAN..... 04
- ITALIAN..... 05
- CHINESE..... 06
- TAGALOG..... 07
- POLISH..... 08
- KOREAN..... 09
- VIETNAMESE..... 10
- PORTUGUESE..... 11
- JAPANESE..... 12
- GREEK..... 13
- OTHER 1 (SPECIFY) \_\_\_\_\_ 14 \_\_\_\_\_
- OTHER 2 (SPECIFY) \_\_\_\_\_ 15 \_\_\_\_\_
- REFUSED..... 98
- DON'T KNOW..... 99

**BOX 1**

**IF ENGLISH ONLY IN A5, SKIP TO A11.**

A6. Tell me what language you use **most** in each of the following situations.

- At home (SPECIFY) \_\_\_\_\_ 01
- At work (SPECIFY) \_\_\_\_\_ 02
- While shopping in your neighborhood (SPECIFY) \_\_\_\_\_ 03
- When visiting relatives (SPECIFY) \_\_\_\_\_ 04
- When visiting friends (SPECIFY) \_\_\_\_\_ 05
- REFUSED..... 98
- DON'T KNOW..... 99

**BOX 2**

**IF ENGLISH ONLY IN A6, SKIP TO A10.**

A7. With regard to {NON-ENGLISH LANGUAGE USED IN MOST SITUATIONS FROM QUESTION A8}, how well do you . . .

|  | <u>Very well</u> | <u>Well</u> | <u>Not well</u> | <u>Not at all</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|------------------|-------------|-----------------|-------------------|----------------|-------------------|
| a. understand it when someone speaks to you? Would you say ..... | 01               | 02          | 03              | 04                | 98             | 99                |
| b. speak it? Would you say .....                                 | 01               | 02          | 03              | 04                | 98             | 99                |
| c. read it? Would you say .....                                  | 01               | 02          | 03              | 04                | 98             | 99                |
| d. write it? Would you say .....                                 | 01               | 02          | 03              | 04                | 98             | 99                |

A8. How old were you when you **first** started to learn English?

\_\_\_\_\_  
AGE IN YEARS

REFUSED ..... 98  
DON'T KNOW ..... 99

A9. With regard to English, how well do you . . .

|  | <u>Very well</u> | <u>Well</u> | <u>Not well</u> | <u>Not at all</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|------------------|-------------|-----------------|-------------------|----------------|-------------------|
| a. understand it when someone speaks to you? Would you say ..... | 01               | 02          | 03              | 04                | 98             | 99                |
| b. speak it? Would you say .....                                 | 01               | 02          | 03              | 04                | 98             | 99                |
| c. read it? Would you say .....                                  | 01               | 02          | 03              | 04                | 98             | 99                |
| d. write it? Would you say .....                                 | 01               | 02          | 03              | 04                | 98             | 99                |

**SECTION B: EDUCATIONAL BACKGROUND AND EXPERIENCES**

Now I'd like to ask you some questions about your educational experiences.

B1. What is the highest level of schooling you **completed** in the United States?

|                   |
|-------------------|
| HAND<br>CARD<br>1 |
|-------------------|

- |   |    |        |
|---|----|--------|
| Up to 8th grade.....  | 01 | } (B3) |
| 9th to 11th grade .....   | 02 |        |
| 12th grade but no diploma.....  | 03 |        |
| GED .....   | 04 |        |
| High school diploma .....   | 05 | (B2)   |
| Vocational/technical program after high school but<br>no diploma .....                          | 07 | } (B4) |
| Vocational/technical diploma after high school .....  | 08 |        |
| Some college but no degree .....  | 09 |        |
| Associate's degree (A.A., A.S.) .....   | 10 |        |
| Bachelor's degree (B.A., B.S.) .....  | 11 |        |
| Graduate or professional school but no degree .....   | 12 |        |
| Master's degree (M.A./M.S.).....  | 13 |        |
| Doctorate degree (Ph.D., Ed.D.) .....   | 14 |        |
| Professional degree beyond bachelor's degree<br>(Medicine/MD, Dentistry/DDS, Law/JD/LL.B.)..... | 15 |        |
| NONE .....  | 16 |        |
| REFUSED .....   | 98 |        |
| DON'T KNOW .....  | 99 |        |

B2. How did you earn your high school diploma?

- |   |    |
|---|----|
| GED TESTING .....                         | 01 |
| ADULT HIGH SCHOOL.....                    | 02 |
| REGULAR HIGH SCHOOL CURRICULUM.....       | 03 |
| CERTIFICATE OF COMPLETION/ATTENDANCE..... | 04 |
| OTHER (SPECIFY) _____                     | 05 |
| REFUSED.....                              | 98 |
| DON'T KNOW .....                          | 99 |

B3. What was the **main** reason you stopped your public or private schooling when you did?

|   |    |
|---|----|
| FINANCIAL PROBLEMS.....   | 01 |
| DID NOT DO WELL IN SCHOOL.....  | 02 |
| DID NOT LIKE SCHOOL OR WAS BORED IN SCHOOL .....                            | 03 |
| DID NOT FEEL SAFE IN SCHOOL .....   | 04 |
| I DID NOT GET ALONG WITH MY TEACHERS .....                                  | 05 |
| EXPELLED FROM SCHOOL OR ASKED TO LEAVE.....                                 | 06 |
| WENT TO WORK.....   | 07 |
| WENT INTO THE MILITARY.....   | 08 |
| PERSONAL ILLNESS OR DISABILITY .....  | 09 |
| PREGNANCY.....  | 10 |
| FAMILY REASONS SUCH AS THE ILLNESS OR DEATH<br>OF A PARENT OR GUARDIAN..... | 11 |
| SCHOOL NOT AVAILABLE OR ACCESSIBLE .....                                    | 12 |
| MOVED AROUND.....   | 13 |
| TAKING CARE OF CHILDREN.....  | 14 |
| OTHER (SPECIFY) _____   | 15 |
| REFUSED.....  | 98 |
| DON'T KNOW .....  | 99 |

B4. Remember when you **first** learned to read. Do you remember ever having trouble reading as a child?

|   |    |        |
|---|----|--------|
| YES .....                                 | 01 | } (B7) |
| NO .....                                  | 02 |        |
| NEVER LEARNED TO READ AS<br>A CHILD ..... | 03 |        |
| REFUSED .....                             | 98 |        |
| DON'T KNOW .....                          | 99 |        |

B5. In which grade did you **first** have trouble?

|                                |    |
|--------------------------------|----|
| FIRST .....                    | 01 |
| SECOND OR THIRD.....           | 02 |
| FOURTH OR FIFTH.....           | 03 |
| SIXTH, SEVENTH, OR EIGHTH..... | 04 |
| HIGH SCHOOL .....              | 05 |
| REFUSED .....                  | 98 |
| DON'T KNOW .....               | 99 |

B6. Have you ever received remedial help or special classes with reading at school?

|                  |    |
|------------------|----|
| YES .....        | 01 |
| NO .....         | 02 |
| REFUSED .....    | 98 |
| DON'T KNOW ..... | 99 |

B7. Remember when you **first** learned math. Do you remember ever having trouble with math as a child?

- YES ..... 01 (B8)
- NO ..... 02
- NEVER LEARNED MATH AS  
A CHILD ..... 03 } (B10)
- REFUSED ..... 98
- DON'T KNOW ..... 99

B8. In which grade did you **first** have trouble?

- FIRST ..... 01
- SECOND OR THIRD..... 02
- FOURTH OR FIFTH..... 03
- SIXTH, SEVENTH, OR EIGHTH..... 04
- HIGH SCHOOL ..... 05
- REFUSED ..... 98
- DON'T KNOW ..... 99

B9. Have you ever received remedial help or special classes with math at school?

- YES ..... 01
- NO ..... 02
- REFUSED ..... 98
- DON'T KNOW ..... 99

B10. Did you ever repeat a grade?

- YES ..... 01 (B10a)
- NO ..... 02
- REFUSED ..... 98 } (B11)
- DON'T KNOW ..... 99

B10a. Which grade(s)?

\_\_\_\_\_ 05 \_\_\_\_\_  
GRADE(S)

B11. How long have you been taking classes at this program?

READ ANSWER CATEGORIES ONLY IF NECESSARY.

- Less than 6 months ..... 01
- Between 6 months and 1 year..... 02
- One to two years ..... 03
- More than two years ..... 04
- REFUSED ..... 98
- DON'T KNOW ..... 99

B12. What made you decide to take adult education classes?

CODE ALL THAT APPLY.

- TO OBTAIN A BETTER JOB..... 01
- REQUIRED FOR MY CURRENT JOB ..... 02
- TO OBTAIN A HIGH SCHOOL DIPLOMA OR GED ..... 03
- TO FURTHER MY EDUCATION  
(NOT RELATED TO HS DIPLOMA OR GED) ..... 04
- TO HELP MY CHILDREN WITH THEIR HOMEWORK ..... 05
- OTHER (SPECIFY) \_\_\_\_\_ 06

B13. Besides this program, are you taking or have you ever taken any other classes or had tutoring to improve your basic reading, writing, or English skills outside of regular school?

- YES ..... 01
  - NO ..... 02
  - REFUSED ..... 98
  - DON'T KNOW ..... 99
- } (B17)

B14. What type of class or classes or tutoring did you take? Was it or were they . . .

CODE ALL THAT APPLY.

- to learn English as a second language (ESOL/English  
as a Second Language), ..... 01
- to improve basic reading, writing, or math skills not including  
English as a Second Language classes (ABE/Adult Basic  
Education), ..... 02
- to prepare to take the GED test (ASE/Adult Secondary  
Education), or ..... 03
- in some other high school equivalency program or adult high  
school program (ASE/Adult Secondary Education)? ..... 04
- OTHER (SPECIFY) \_\_\_\_\_ 05
- REFUSED..... 98
- DON'T KNOW ..... 99

B15. Where did you take these classes or receive this tutoring?

CODE ALL THAT APPLY.

- At work or a union hall ..... 01
- At a community college ..... 02
- At a high school/public school ..... 03
- At an adult learning center/adult school ..... 04
- At a library..... 05
- In prison ..... 06
- In the military ..... 07
- Distance learning (video or television) ..... 08
- On the computer or Internet ..... 09
- OTHER (SPECIFY) \_\_\_\_\_ 10
- REFUSED..... 98
- DON'T KNOW ..... 99

B16. When was the **last** time you took these classes or had this tutoring?

READ ANSWER CATEGORIES ONLY IF NECESSARY.

- Still enrolled ..... 01
- Within the past year ..... 02
- Between one and five years ..... 03
- More than five years ago ..... 04
- REFUSED ..... 98
- DON'T KNOW ..... 99

B17. Not including any classes you may have taken or any work assigned by a teacher, have you ever studied or practiced **on your own** to improve your reading, writing, or math skills or studied for a GED?

- YES ..... 01 (B17a)
  - NO ..... 02
  - REFUSED ..... 98
  - DON'T KNOW ..... 99
- } (B18)

B17a. What form did this studying take? Did you study on your own through....

CODE ALL THAT APPLY.

- a workbook or textbook, ..... 01
- a video, ..... 02
- a course you watched on public television, ..... 03
- learning developed for the computer or Internet, or ..... 04
- some other way? (SPECIFY) \_\_\_\_\_ ..... 05\_\_\_\_\_

B18. In general, would you say your health is . . .

- excellent, ..... 01
- very good, ..... 02
- good, ..... 03
- fair, or ..... 04
- poor? ..... 05
- REFUSED ..... 98
- DON'T KNOW ..... 99

B19. On the whole, how do you feel about your life over the **past 12 months**? Would you say that you are . . .

- extremely satisfied, ..... 01
- satisfied, ..... 02
- neither satisfied nor dissatisfied, ..... 03
- unsatisfied, or ..... 04
- extremely unsatisfied? ..... 05
- REFUSED ..... 98
- NO OPINION/DON'T KNOW ..... 99

| B20. Did you ever have . . .   |   | B21. Did you have this problem while you were in elementary or secondary school? | B22. Do you have this problem now?                                |
|--|---|--|---|
| a. eye/visual trouble of the kind that is not corrected by glasses?                      | YES.....01<br>NO .....02 (B20b)<br>REFUSED.....98 (B20b)<br>DON'T KNOW ...99 (B20b) | YES .....01<br>NO .....02<br>REFUSED .....98<br>DON'T KNOW .....99               | YES ..... 01<br>NO..... 02<br>REFUSED..... 98<br>DON'T KNOW... 99 |
| b. hearing problems?   | YES.....01<br>NO .....02 (B20c)<br>REFUSED.....98 (B20c)<br>DON'T KNOW ...99 (B20c) | YES .....01<br>NO .....02<br>REFUSED .....98<br>DON'T KNOW .....99               | YES ..... 01<br>NO..... 02<br>REFUSED..... 98<br>DON'T KNOW... 99 |
| c. a speech disability?  | YES.....01<br>NO .....02 (B20d)<br>REFUSED.....98 (B20d)<br>DON'T KNOW ...99 (B20d) | YES .....01<br>NO .....02<br>REFUSED .....98<br>DON'T KNOW .....99               | YES ..... 01<br>NO..... 02<br>REFUSED..... 98<br>DON'T KNOW... 99 |
| d. a learning disability?  | YES.....01<br>NO .....02 (B20e)<br>REFUSED.....98 (B20e)<br>DON'T KNOW ...99 (B20e) | YES .....01<br>NO .....02<br>REFUSED .....98<br>DON'T KNOW .....99               | YES ..... 01<br>NO..... 02<br>REFUSED..... 98<br>DON'T KNOW... 99 |
| e. any other mental or physical disability or health problem lasting six months or more? | YES.....01<br>NO .....02 (B21)<br>REFUSED.....98 (B21)<br>DON'T KNOW ...99 (B21)    | YES .....01<br>NO .....02<br>REFUSED .....98<br>DON'T KNOW .....99               | YES ..... 01<br>NO..... 02<br>REFUSED..... 98<br>DON'T KNOW... 99 |

B23. The following questions are about activities you might do during a typical day. Does your health **now** limit you in these activities? If so, how much?

IF YES, PROBE: Would that be limited a lot or limited a little?

|   | Yes,<br>limited a<br>lot | Yes,<br>limited a<br>little | No, not<br>limited at<br>all | REFUSED | DON'T<br>KNOW |
|---|--------------------------|-----------------------------|------------------------------|---------|---------------|
| a. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf | 01                       | 02                          | 03                           | 98      | 99            |
| b. Climbing several flights of stairs   | 01                       | 02                          | 03                           | 98      | 99            |

B24. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of your **physical** health?

|  | Yes | No | REFUSED | DON'T KNOW |
|--|-----|----|---------|------------|
| a. <b>Accomplished less</b> than you would like                | 01  | 02 | 98      | 99         |
| b. Were limited in the <b>kind</b> of work or other activities | 01  | 02 | 98      | 99         |

B25. During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities as a result of any **emotional** problems (such as feeling depressed or anxious)?

|  | Yes | No | REFUSED | DON'T KNOW |
|--|-----|----|---------|------------|
| a. <b>Accomplished less</b> than you would like                    | 01  | 02 | 98      | 99         |
| b. Didn't do work or other activities as <b>carefully</b> as usual | 01  | 02 | 98      | 99         |

B26. During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)? Was this...

- Not at all, ..... 01
- A little bit, ..... 02
- Moderately, ..... 03
- Quite a bit, or ..... 04
- Extremely? ..... 05
- REFUSED ..... 98
- DON'T KNOW ..... 99

B27 These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling.

|   | All of the time | Most of the time | A good bit of the time | Some of the time | A little of the time | None of the time | REFUSED | DON'T KNOW |
|---|-----------------|------------------|------------------------|------------------|----------------------|------------------|---------|------------|
| a. Have you felt calm and peaceful? Would that be...    | 01              | 02               | 03                     | 04               | 05                   | 06               | 98      | 99         |
| b. Did you have a lot of energy? Would that be...       | 01              | 02               | 03                     | 04               | 05                   | 06               | 98      | 99         |
| c. Have you felt downhearted and blue? Would that be... | 01              | 02               | 03                     | 04               | 05                   | 06               | 98      | 99         |

B28. During the **past 4 weeks**, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it...

- All of the time, ..... 01
- Most of the time, ..... 02
- Some of the time, ..... 03
- A little of the time, or..... 04
- None of the time? ..... 05
- REFUSED ..... 98
- DON'T KNOW ..... 99

## SECTION C: LABOR FORCE PARTICIPATION AND OTHER ACTIVITIES

- C1. Now I'd like to ask you some questions about your employment status. What is your current work situation? Are you . . .

CODE ALL THAT APPLY.

employed or self-employed, ..... 01 (C3a)  
 unemployed/looking for work, ..... 02  
 retired, ..... 03  
 a student, ..... 04  
 homemaker, or ..... 05  
 doing volunteer work? ..... 06  
 OTHER (SPECIFY) \_\_\_\_\_ 07 \_\_\_\_\_  
 REFUSED ..... 98  
 DON'T KNOW ..... 99

- C2. Did you work at a job or business for pay or profit at any time in the **last 12 months**, that is, since {CURRENT MONTH AND PRIOR YEAR} (regardless of the number of hours per week)?

YES ..... 01  
 NO ..... 02 (C9)  
 REFUSED ..... 98  
 DON'T KNOW ..... 99

- C3a. During the **last 12 months** did you work mostly full time, that is 35 hours per week or more, or part-time, that is less than 35 hours per week?

MOSTLY FULL-TIME ..... 01  
 MOSTLY PART-TIME ..... 02  
 BOTH FULL AND PART TIME EQUALLY. 03  
 REFUSED ..... 98  
 DON'T KNOW ..... 99

- C3b. How many weeks did you work during the **past 12 months** (including weeks of paid vacation)?

WEEKS

REFUSED ..... 98  
 DON'T KNOW ..... 99

- C4. Were you ever away from work for a week or more during the **last 12 months** because you were on a temporary layoff?

YES ..... 01  
 NO ..... 02  
 REFUSED ..... 98  
 DON'T KNOW ..... 99

The next few questions are about the job or business at which you worked the **most** hours during the **last 12 months**. We will refer to this as your main job.

C5. For whom did you work? (Please provide name of business, government department, or person.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REFUSED ..... 98  
 DON'T KNOW..... 99

C6. What kind of business, industry, or service was this? (Give full description, e.g., automobile manufacturing plant, retail grocery, municipal government.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REFUSED ..... 98  
 DON'T KNOW..... 99

C7. What kind of work were you doing at this job? (Give full description or occupational title, e.g., office clerk, machine operator, computer programmer.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REFUSED ..... 98  
 DON'T KNOW..... 99

C8. What were your **most** important activities or duties? (Give full description or occupational title, e.g., filing documents, drying vegetables, forest examiner.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REFUSED ..... 98  
 DON'T KNOW ..... 99

C9. Did you look for work at anytime during the **last 12 months**, that is, look for a new or different job?

YES..... 01  
 NO ..... 02  
 REFUSED ..... 98  
 DON'T KNOW ..... 99

The next two questions are about your activities outside of work or school.

C10. Whether these activities are done in person or on a computer, about how often do you...

|  | <u>Weekly</u> | <u>Monthly</u> | <u>Several times during the year</u> | <u>Once or twice during the year</u> | <u>Never</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|---------------|----------------|--------------------------------------|--------------------------------------|--------------|----------------|-------------------|
| a. use a public library?<br>Would that be..... | 01            | 02             | 03                                   | 04                                   | 05           | 98             | 99                |
| b. visit a bookstore?<br>Would that be.....    | 01            | 02             | 03                                   | 04                                   | 05           | 98             | 99                |

C11. How much time do you usually spend each day watching television or videos?

READ ANSWER CATEGORIES ONLY IF NECESSARY.

|  |    |
|--|----|
| 1 hour or less per day.....            | 01 |
| Over 1 hour to 2 hours per day .....   | 02 |
| More than 2 hours but less than 5..... | 03 |
| 5 or more hours per day .....          | 04 |
| Do not have a television or VCR .....  | 05 |
| REFUSED .....                          | 98 |
| DON'T KNOW .....                       | 99 |

C12. Now I'd like to talk to you about what you read in English that is not part of your work or schooling.

How often do you read or use information from . . .

|  | <u>At least once a week</u> | <u>Less than once a week</u> | <u>Rarely</u> | <u>Never</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|-----------------------------|------------------------------|---------------|--------------|----------------|-------------------|
| a. newspapers? Would you say....                   | 01                          | 02                           | 03            | 04           | 98             | 99                |
| b. books? Would you say.....                       | 01                          | 02                           | 03            | 04           | 98             | 99                |
| c. magazines or articles?<br>Would you say .....   | 01                          | 02                           | 03            | 04           | 98             | 99                |
| d. letters, notes, e-mails?<br>Would you say ..... | 01                          | 02                           | 03            | 04           | 98             | 99                |

**BOX 3**

**IF C12a = 1 OR 2, GO TO C13. ELSE, GO TO BOX 5.**

C13. I am now going to read you a list of some different parts of a **newspaper**. Please tell me which parts you generally read when looking at a newspaper in English. Do you read . . .

|  | <u>YES</u> | <u>NO</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|------------|-----------|----------------|-------------------|
| a. national/international news, .....      | 01         | 02        | 98             | 99                |
| b. regional or local news, .....           | 01         | 02        | 98             | 99                |
| c. sports, .....                           | 01         | 02        | 98             | 99                |
| d. home, fashion, food or health, .....    | 01         | 02        | 98             | 99                |
| e. editorial page, .....                   | 01         | 02        | 98             | 99                |
| f. financial news or stock listings,.....  | 01         | 02        | 98             | 99                |
| g. book, movie or art reviews,.....        | 01         | 02        | 98             | 99                |
| h. advice column, or.....                  | 01         | 02        | 98             | 99                |
| i. any other parts of the newspaper? ..... | 01         | 02        | 98             | 99                |

**BOX 4**

**IF C12b = 1 OR 2, GO TO C14. ELSE, GO TO SECTION D.**

C14. I am now going to read you a list of some different types of **books**. Please tell me which types of books you generally read or get information from in English. Do you read . . .

|  | <u>YES</u> | <u>NO</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|------------|-----------|----------------|-------------------|
| a. fiction,.....   | 01         | 02        | 98             | 99                |
| b. recreation or entertainment,.....                                 | 01         | 02        | 98             | 99                |
| c. current affairs or history, .....                                 | 01         | 02        | 98             | 99                |
| d. inspiration or religion,.....                                     | 01         | 02        | 98             | 99                |
| e. nature, science, or social science,.....                          | 01         | 02        | 98             | 99                |
| f. reference, such as encyclopedias or dictionaries,...              | 01         | 02        | 98             | 99                |
| g. cookbooks, manuals for operating, repairing<br>or building, ..... | 01         | 02        | 98             | 99                |
| h. books to children, or .....                                       | 01         | 02        | 98             | 99                |
| i. any other types of books?.....                                    | 01         | 02        | 98             | 99                |

C15. In the **past month**, did you use a computer at . . .

|   | <u>YES</u> | <u>NO</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|---|------------|-----------|----------------|-------------------|
| a. home, .....  | 01         | 02        | 98             | 99                |
| b. work, .....  | 01         | 02        | 98             | 99                |
| c. a friend's home, .....                                       | 01         | 02        | 98             | 99                |
| d. a relative's home, .....                                     | 01         | 02        | 98             | 99                |
| e. a public library (excluding the library catalogue), .....    | 01         | 02        | 98             | 99                |
| f. an Internet café, .....                                      | 01         | 02        | 98             | 99                |
| g. a community resource center (e.g., employment center), ..... | 01         | 02        | 98             | 99                |
| h. an education or training institution, .....                  | 01         | 02        | 98             | 99                |
| i. an organization where you volunteer, or .....                | 01         | 02        | 98             | 99                |
| j. some other location? (SPECIFY).....                          | 01         | 02        | 98             | 99                |

C16. In a **typical month**, how often did you use a computer for the following purposes?

|   | Daily | A few times a week | A few times a month | Never | REFUSED | DON'T KNOW |
|---|-------|--------------------|---------------------|-------|---------|------------|
| a. Writing or editing text                                | 01    | 02                 | 03                  | 04    | 98      | 99         |
| b. Accounts, spreadsheets, or statistical analysis        | 01    | 02                 | 03                  | 04    | 98      | 99         |
| c. Creating graphics, designs, pictures, or presentations | 01    | 02                 | 03                  | 04    | 98      | 99         |
| d. Programming or writing computer code                   | 01    | 02                 | 03                  | 04    | 98      | 99         |
| e. Keeping a schedule or calendar                         | 01    | 02                 | 03                  | 04    | 98      | 99         |
| f. Reading information on a CD-ROM or DVD                 | 01    | 02                 | 03                  | 04    | 98      | 99         |
| g. Playing games  | 01    | 02                 | 03                  | 04    | 98      | 99         |
| h. Accessing email or the Internet                        | 01    | 02                 | 03                  | 04    | 98      | 99         |
| i. Other purposes, SPECIFY: _____                         | 01    | 02                 | 03                  | 04    | 98      | 99         |

**SECTION D: DEMOGRAPHIC INFORMATION**

Now I would like to ask you a few more questions about your background.

D1. What was the highest level of schooling that your mother or female guardian ever **completed**?

|                   |
|-------------------|
| HAND<br>CARD<br>1 |
|-------------------|

|   |    |
|---|----|
| Up to 8th grade.....  | 01 |
| 9th to 11th grade .....   | 02 |
| 12th grade but no diploma.....  | 03 |
| GED .....   | 04 |
| High school diploma .....   | 05 |
| Vocational/technical program after high school but<br>no diploma .....                          | 07 |
| Vocational/technical diploma after high school .....  | 08 |
| Some college but no degree.....   | 09 |
| Associate’s degree (A.A., A.S.) .....   | 10 |
| Bachelor’s degree (B.A., B.S.).....   | 11 |
| Graduate or professional school but no degree .....   | 12 |
| Master’s degree (M.A./M.S.).....  | 13 |
| Doctorate degree (Ph.D., Ed.D.) .....   | 14 |
| Professional degree beyond bachelor’s degree<br>(Medicine/MD, Dentistry/DDS, Law/JD/LL.B.)..... | 15 |
| No formal education .....   | 16 |
| REFUSED .....   | 98 |
| DON’T KNOW.....   | 99 |

D2. What was the highest level of schooling that your father or male guardian ever **completed**?

|                   |
|-------------------|
| HAND<br>CARD<br>1 |
|-------------------|

|   |    |
|---|----|
| Up to 8th grade.....  | 01 |
| 9th to 11th grade .....   | 02 |
| 12th grade but no diploma.....  | 03 |
| GED .....   | 04 |
| High school diploma .....   | 05 |
| Vocational/technical program after high school but<br>no diploma .....                          | 07 |
| Vocational/technical diploma after high school .....  | 08 |
| Some college but no degree.....   | 09 |
| Associate’s degree (A.A., A.S.) .....   | 10 |
| Bachelor’s degree (B.A., B.S.).....   | 11 |
| Graduate or professional school but no degree .....   | 12 |
| Master’s degree (M.A./M.S.).....  | 13 |
| Doctorate degree (Ph.D., Ed.D.) .....   | 14 |
| Professional degree beyond bachelor’s degree<br>(Medicine/MD, Dentistry/DDS, Law/JD/LL.B.)..... | 15 |
| No formal education .....   | 16 |
| REFUSED.....  | 98 |
| DON’T KNOW.....   | 99 |

D3. IF NOT OBVIOUS ASK: Are you male or female?

MALE ..... 01  
 FEMALE ..... 02

D4. Which **best** describes you? I am . . .

Hispanic or Latino, or..... 01  
 Not Hispanic or Latino ..... 02  
 REFUSED ..... 98

D5. What is your race?

CODE ALL THAT APPLY.

|                   |
|-------------------|
| HAND<br>CARD<br>2 |
|-------------------|

White ..... 01  
 Black or African American ..... 02  
 Asian..... 03  
 American Indian or Alaska Native ..... 04  
 Native Hawaiian or other Pacific Islander..... 05  
 REFUSED..... 98

D6. During the **past year**, did you receive any income from . . .

|  | <u>YES</u> | <u>NO</u> | <u>REFUSED</u> | <u>DON'T KNOW</u> |
|--|------------|-----------|----------------|-------------------|
| a. wages or salaries including commissions, tips, and bonuses, .....   | 01         | 02        | 98             | 99                |
| b. self-employment including farm self-employment and non-farm self employment (including business, professional, commission, fishing and net income from roomers and boarders), .....   | 01         | 02        | 98             | 99                |
| c. interest, dividends, capital gains or other investment income such as net rental from roomers and boarders, etc.,.....  | 01         | 02        | 98             | 99                |
| d. Social Security payments from the U.S. Government, .....  | 01         | 02        | 98             | 99                |
| e. Employment Insurance Benefits such as Unemployment Compensation, Worker's Compensation,.....  | 01         | 02        | 98             | 99                |
| f. SSI payments, that is, Supplemental Security Income (Assistance payments to low income aged, blind, and disabled persons from State or Local Welfare Offices, the Federal Government, or both),.....  | 01         | 02        | 98             | 99                |
| g. other government sources such as cash payments from State or Local welfare organizations, Veterans' benefits, .....   | 01         | 02        | 98             | 99                |
| h. any pension or retirement income from a previous employer or union or any other type of retirement income (other than Social Security or VA benefits), or.  | 01         | 02        | 98             | 99                |
| i. any other income sources such as alimony, child support, regular financial assistance from friends or relatives, income from estates or trusts, rent roomers or boarders (after expenses) or educational assistance for tuition, fees, books, or living expenses? ..... | 01         | 02        | 98             | 99                |

D7. What is the **total** number of people living in your household, including yourself?

\_\_\_\_\_  
TOTAL NUMBER IN HOUSEHOLD

REFUSED ..... 98  
DON'T KNOW ..... 99

D8a. What is your best estimate of **total** income of all persons in your household (including yourself) from all sources over the **past year**, before taxes and deductions?

\$ |\_|\_|, |\_|\_|\_|, |\_|\_|\_|.00

DON'T KNOW..... 98 } (D8b)  
 REFUSED..... 99 }

**IF ESTIMATE PROVIDED, THANK SP AND END QUESTIONNAIRE.  
 RECORD END TIME ON PAGE 21.**

D8b. What was the **total** income of all persons in your household over the **past year**, including salaries or other earnings including interest, retirement and so on for all household members? Was it . . .

HAND  
 CARD  
 3

Less than \$40,000 or..... 01 (D8c HANDCARD 4)  
 \$40,000 or more? ..... 02 (D8c HANDCARD 5)  
 REFUSED ..... 98 } (D9)  
 DON'T KNOW ..... 99 }

D8c. Was it . . .

HAND  
 CARD  
 4

\$Less than \$10,000, ..... 01  
 \$10,000 to less than \$20,000, ..... 02  
 \$20,000 to less than \$30,000, or ..... 03  
 \$30,000 or more? ..... 04  
 REFUSED ..... 98 } (D9)  
 DON'T KNOW ..... 99 }

HAND  
 CARD  
 5

Less than \$50,000, ..... 01  
 \$50,000 to less than \$60,000, ..... 02  
 \$60,000 to less than \$80,000, ..... 03  
 \$80,000 to less than \$100,000, or ..... 04  
 \$100,000 or more? ..... 05  
 REFUSED..... 98 } (D9)  
 DON'T KNOW..... 99 }

IF D8b AND D8c ANSWERED, THANK SP AND END QUESTIONNAIRE.  
 RECORD END TIME ON PAGE 21.





# Appendix A4

## AEPS Instruments and Methods

As described earlier, the purpose of the AEPS was twofold: to collect detailed information about federally funded programs serving adult learners in the United States—including ESL, ABE, and ASE programs—and to profile the literacy and numeracy skills of individuals enrolled in those programs. Sponsored by the Office of Vocational and Adult Education, the AEPS was designed and conducted by Educational Testing Service and Westat, Inc., in collaboration with staff from the Office of Vocational and Adult Education and the National Center for Education Statistics.

This Appendix A4 describes the survey instruments used to collect data for the Program and Learner Surveys and explains how nationally representative samples of respondents were selected. The methods undertaken to prepare the data for analysis are also summarized. Readers who seek more in-depth information about these aspects of the survey design and implementation are encouraged to see the technical report on the Adult Education Program Study (forthcoming).

### Program Survey

From the fall of 2002 through the spring of 2003, more than 1,200 adult learning programs within the 50 states and the District of Columbia participated in the Program Survey. Staff at each of these programs completed a lengthy questionnaire, and the information they provided was then compiled and analyzed. The following sections describe the content of the survey questionnaire, the sampling methods, and the procedures used to collect, clean, weight, and analyze the survey data.

### Survey Instruments

ETS staff, working in collaboration with an expert panel of adult education program directors and researchers as well as staff from the National Center for Education Statistics, the Office of Vocational and Adult Education, and Westat, created a detailed program questionnaire to collect information about the characteristics of federally

funded programs serving adult learners. As noted earlier, these included ESL, ABE, and ASE programs. The program questionnaire, which was administered in hard copy, contained five sections that addressed the following topics:

- *Size and Type of Provider.* Questions were asked about type of provider, number and kinds of sites at which services are provided, percentage of learners served, community involvement, and sources of budget.
- *Instructional and Support Programs.* Questions were asked about learner enrollment by course type and ethnicity, hours of instruction, open and managed enrollment, types of learning environments, noninstructional services offered, and learner recruitment strategies.
- *Staffing.* Questions were asked about numbers and type of staff, staff professional experience, educational requirements, staff turnover, certification credentials, and in-service training.
- *Role and Uses of Assessments.* Questions were asked about the learner orientation process, disability screening, and standardized assessments used.
- *Technology.* Questions were asked about use of computers by learners and staff, sources of technology support/assistance, technology training for staff, hardware/software capabilities, and program technology plan.

The Program Survey instrument contained 28 questions, some of which were divided into multiple parts. Instructions for response format (e.g., dollars, percents) and skip patterns were provided. Program directors were asked to have their staff fill out the questionnaire with respect to services provided from July 1, 2001 to June 30, 2002. The entire program questionnaire took approximately three hours to complete, on average. This included time to review instructions, gather the necessary data, and complete and review the responses recorded.

## Sample Design

The sampling procedures for the AEPS were designed to ensure that the study would provide accurate information about a variety of types of programs for adult learners (including ABE, ASE and ESL programs) in all regions of the United States. Adult education programs included in the NRS and/or which received federal funds under Title II (i.e., AEFLA) were eligible for the survey.

The study design called for a sample size of 1,765 programs. It was determined that the optimal sampling design would be a single-stage probability proportionate-to-size (PPS) sample, with a measure of size (MOS) equal to the square root of the enrollment. Choosing the square root of enrollment as the MOS reflected the desire to estimate statistics related to the characteristics of the programs as well as the characteristics of the adult learners enrolled in those programs.

The first step in obtaining the sample for the Program Survey was to create a sampling frame of eligible programs. Accordingly, state program directors from the 50 states and the District of Columbia were asked to provide a list of all programs in the state that served adult learners and received federal funds under Title II. They were also asked to provide basic descriptive information about each program, including the provider type (local education agency, community-based organization, community college, correctional facility, or other); types of courses provided (ABE, ASE, or ESL); 2000–2001 enrollment figures for each course type; the numbers of sites and classes for each program; and contact information. Significant efforts were made to

obtain complete information and to resolve discrepancies between the enrollment data provided and figures reported in the 2001 National Reporting System. The resulting sampling frame included 3,108 eligible programs with a total enrollment of roughly 2.6 million learners.

The next step was to sort the list of programs by geographic region, provider type, predominating course type, and enrollment. The sort was hierarchical, so that provider type was sorted within each value of geographic region; predominating course type was sorted within each combination of geographic region and provider type; and so on. This sorting procedure implicitly stratified the sampling frame. To further group together programs with similar characteristics, and thus further enhance the stratification, the sorting was done using a serpentine order. For example, enrollment was sorted in descending order, then switched to ascending order when it moved to a new combination of region, provider type, and predominating course type.

Next, the list of programs was divided into three strata. The first strata contained all of the correctional programs in the sampling frame. These were identified as “certainty programs” because they were certain to be included in the final sample. (This would support detailed analyses of adult literacy and learning opportunities provided by correctional programs.) The second strata contained other certainty programs: those certain to be selected into the final sample due to their large size. The third strata contained all other programs, which were labeled as “noncertainty” programs.

Target sample sizes were assigned to each stratum. For strata 1 and 2, the targets were equal to the total number of programs in their respective stratum. Accordingly, 96 correctional programs (stratum 1) and 544 large programs with a probability of selection equal to one (stratum 2) were selected into the final sample. The target sample size for stratum 3 was equal to the difference between 1,765 (the total target sample) and the number of certainty programs in strata 1 and 2 (640), plus a 20 percent reserve sample. After sample selection, 20 percent of the programs in the noncertainty sample were randomly assigned to the reserve sample.

As a result of this multi-step process, the final sample for the Program Survey contained 1,770 programs across the country that were serving approximately 2.4 million learners. Slightly more than half (53 percent) of these programs were provided by local education agencies, while 20 percent were provided by community colleges, 14 percent by community-based organizations, 5 percent by correctional institutions, and 7 percent by other kinds of providers. As described later in this chapter, a subset of the 1,770 programs sampled for the Program Survey were also selected for participation in the Learner Survey, which assessed the literacy and numeracy skills of individuals enrolled in adult learning programs.

## Data Collection

Having an excellent survey instrument and a high quality sample is of little use if the programs selected for the sample do not respond, or if they provide incomplete or inaccurate data. Accordingly, the study team implemented a variety of measures to promote a high response rate and to maximize the integrity of the data collected.

**Outreach.** Numerous outreach activities were carried out both before and during the data collection phase of the program study to raise state program directors’ awareness of the study goals, introduce the data collection instruments, build support for the project, and obtain information necessary for sampling. Before the data collection began, for example, project staff held monthly “shop talks” (conference calls) with

state directors, made presentations about the study at national and state-level meetings, and sent out letters and flyers providing information about the study. Outreach efforts continued once the data collection was underway. State directors were reminded at the monthly shop talks to encourage programs to complete and return program questionnaires. They also received letters updating them about the study progress, identifying programs that had and had not responded to the survey, and requesting help with encouraging nonrespondents to complete their program questionnaires.

An information system consisting of a telephone line and e-mail address staffed by project employees who were knowledgeable about the project was established to facilitate communication with sampled programs. Program directors received e-mail messages reminding them to complete the program questionnaire, and programs that had also been selected for the Learner Survey were reminded how especially crucial it was for them to respond.

**Survey mailing and receiving.** The AEPS program questionnaire was mailed to all sampled programs on October 15, 2002. Also included in the package were a questionnaire aide to assist program staff in completing specific questions, a flyer providing an overview of the study, a miniposter promoting the study, and a prepaid postcard for programs to return confirming that they had received the materials. Finally, the package included a prepaid return envelope and mailing label to facilitate return of the completed questionnaire.

Programs mailed completed program questionnaires to the Westat home office on an ongoing basis. All returned questionnaires were reviewed for completeness and legibility. The study manager was consulted regarding cases containing information that appeared problematic, and these discrepancies and issues were resolved. Programs that returned program questionnaires with missing critical items were contacted and asked to supply the missing information. Weekly reports were generated to track the numbers of completed questionnaires received.

Although programs were asked to return their completed questionnaire no later than November 15, 2002, only about 900 programs had responded to the survey by the end of December, for a response rate of 51 percent. The field period was therefore extended until the end of June 2003, and additional follow-up efforts were undertaken to substantially increase the response rate.

**Follow-up efforts.** Staff from the Office of Vocational and Adult Education, assisted by staff from the National Center for Education Statistics and Westat, carried out an intensive telephone follow-up effort with the approximately 600 programs that had not completed a program questionnaire as of spring 2003. Several attempts were made to contact each of the nonresponding programs, and 91 of them ultimately submitted a completed questionnaire.

Because the Learner Survey was linked to the program study, it was particularly important to obtain completed program questionnaires from the 162 programs that were selected for both components of the study. Accordingly, the Office of Vocational and Adult Education made a concerted effort to speak with staff at each of the 35 participant study programs that had not completed program questionnaires; 26 of these programs subsequently responded by submitting completed program questionnaires before the end of the data collection phase.

**Response rate.** By the close of the data collection period, 1,246 of the 1,757 eligible programs had returned completed program questionnaires, representing a 71 percent unweighted response rate. Among the 29 percent of sampled eligible programs that did not complete the program questionnaire, most expressed support for the study

but cited lack of time, limited staff resources, and more pressing program priorities as reasons for nonresponse. Several programs also mentioned recent staff turnover at the director level as a contributing reason for lack of time.

Weighted response rates were computed in two ways: using base weights and using weighted enrollment. The weighted response rate was 68.8 percent, while the weighted response rate adjusted for enrollment was 74.6 percent (since larger programs had a higher response rate). In general, community colleges, Midwestern programs, and larger programs tended to have higher response rates. Lower rates were found among ESL programs and smaller programs.

## Data Entry, Cleaning, and Weighting

Once the completed questionnaires were received, Westat staff keyed the data from the questionnaires using a program questionnaire codebook that contained all survey items and allowable responses, record layouts, and coding information. Coded program questionnaires underwent quality control to eliminate errors and enforce coding standards. The data from all variables within the program questionnaire were then cleaned using a series of edit checks, logical imputations, and statistical imputations. The keyed data were checked for allowable responses and skip pattern errors, errors were updated, and the edits were rerun until the data contained no more errors. SAS frequencies were then generated from the source file and reviewed by the data manager.

Given the complex nature of the program questionnaire sample design, it was necessary to calculate sample weights for the AEPS program questionnaire. The sample weights were needed in order to:

1. Permit unbiased estimates, taking into account differential probabilities of selection for various programs in the population;
2. Minimize biases arising from differences between responding and nonresponding sample programs;
3. Bring data up to the dimensions of the population totals; and
4. Use auxiliary data on known population characteristics in such a way as to reduce sampling errors.

The weighting process consisted of six steps. First, the data were reconciled, disposition codes were checked, and variables were defined. Second, base weights were computed using the stratified jackknife technique. Of the 60 replicate weights generated, 27 reflected the amount of sampling variance contributed by noncertainty programs, and 33 reflected the variance contributed by certainty programs. (The certainty programs' contribution to the sampling error is only due to the random nonresponse pattern among these programs.) Third, finite population correction (FPC) factors were computed. This was necessary because sampling was done without replacement from a finite population, and the sampling rate was high enough that the factors could not be ignored. The FPC factors for each replicate were computed based on the number of programs in the frame and the number of programs sampled, excluding nonrespondents.

Fourth, the data were adjusted for nonresponse. This step was essential because the characteristics of the sample of program questionnaire nonrespondents may have differed from those of respondents (see Lê, Krenzke, and Mohadjer 2004, for an analysis of nonresponse bias in the program questionnaire survey estimates). Fifth, the weights were trimmed; that is, extreme weights were adjusted to reduce their impact on the variances. Because excessive trimming can introduce bias, weights

must be trimmed judiciously; for the program questionnaire, only four program weights were trimmed. Sixth, the weights were calibrated to known control totals using an approach known as generalized regression (GREG) estimation (Särndal, Swenson, and Wretman 1992). This procedure used data from the National Reporting System to adjust the sampling weights so that the weighted sample totals equaled the subgroup population control totals. The NRS totals were generally consistent with those from the AEPS sampling frame.

Quality assurance checks were performed at each step of the weighting process, both to verify the current step and compare it to previous steps. The final weights culminating from this six-step process are a product of the program base weights and each of the adjustment factors.

## Analysis

Because of the nature of the data collected, the program questionnaire data analysis was a very straight forward process. In the weighting process for the program questionnaire, the weights represented programs and were used to produce statistics related to the distributional characteristics of various programs. Simple cross-tabulations with weights were used to look at the joint distribution of variables of interest. For example, tables were created to look at number of participants and number of sites by type of program.

In order to evaluate differences of statistics of multiple programs, standard errors of statistics were calculated based on the replicate weights representing the sampling errors. Jackknife standard error of statistics for a given subpopulation were calculated by taking the square root of the sum of the squared deviations for every 60 replicate statistics from the mean.

Since this procedure required the calculation of statistics for 60 times using 60 replicate weights, they necessarily became quite involved. Whatever the comparison might be, repeating simple pairwise comparisons of multiple groups would find “statistically significant difference” more often than should. Therefore the false discovery rate (FDR) procedure was used to control the expected proportion of falsely rejected hypotheses which would result in comparisons being identified as nonsignificant when in fact they are significant (Benjamini and Hochberg 1995).

## Learner Survey

The Learner Survey, conducted in the spring of 2003, is the first major survey to furnish nationally representative estimates of the literacy and numeracy skills of English- and Spanish-speaking individuals enrolled in adult education programs in the United States. More than 6,100 adult learners enrolled in 200 programs throughout the country—including ESL, ABE, and ASE programs—participated in the survey. The following sections describe the data collection instruments, the sampling process, and procedures used to clean, weight, and analyze the survey data. Again, readers seeking more detailed information are encouraged to read the forthcoming technical report on the AEPS study.

## Survey Instruments

Because the Learner Survey sought to assess the performance of learners enrolled in federally funded adult education and literacy programs, it was necessary to design a set of survey instruments that would provide detailed information about respondents’

literacy and numeracy skills. Because the survey also sought to provide a way to investigate relationships between learners' experiences and characteristics and their skills, it was also necessary to develop questionnaires that would gather important background information from respondents. The background questionnaires and literacy assessment materials developed for the AES Learner Survey are described below.

**Background questionnaire.** The background questionnaire for the Learner Survey was adapted from the ALL survey instrument. Two separate versions of the questionnaire were created: one in English, and the other in Spanish. Hispanic students were offered a choice of completing the program questionnaire in either English or Spanish.

Both the English and Spanish versions of the background questionnaire contained approximately 60 questions and took approximately 20 to 30 minutes to administer. The instrument was divided into four sections:

- *Section A: General and Language Background.* Respondents were asked to report their date and place of birth, and to provide information about their language usage and fluency.
- *Section B: Educational Background and Experiences.* Respondents were asked about the level of schooling completed, reading and math difficulties encountered in school, adult education classes taken, mental or physical disabilities, and self-assessed health and well-being.
- *Section C: Labor Force Participation and Other Activities.* Respondents were asked about their employment status, employer, type of job, activities outside of work or school, types of materials read, and frequency and purposes of computer use.
- *Section D: Demographic Information.* Respondents were asked about the education of their parents/guardians, and about their gender, race/ethnicity, income, and number of people in their household.

Trained staff known as exercise administrators (EAs) administered the background questionnaire using hand cards designed to help respondents understand the questions and response options.

**Core exercise booklet.** In addition to answering the background questions, each adult learner sampled for the Learner Survey was asked to perform a set of 15 core literacy exercises that were presented to them in a booklet. These exercises were modeled after the kinds of literacy-related activities that people typically perform in everyday life, such as signing a library card or reading an advertisement. Accordingly, the tasks were open-ended rather than multiple-choice. As with the background questionnaire, two versions of the core exercise booklet were prepared: one in English and another in Spanish. The core exercises took approximately 10 to 15 minutes to administer.

Once a respondent had performed the literacy and numeracy tasks contained in the core exercise booklet, the EA scored the responses on a scoring sheet using a set of specific guidelines. Respondents who performed five or more of the core exercises correctly were then given a main exercise booklet to complete. Those who performed fewer than five of the core tasks correctly were considered to have completed the assessment and were given no additional tasks.

**Main exercise booklet.** The main exercise booklet contained a variety of tasks that were designed to measure participants' prose and document literacy as well as their numeracy skills. The assessment took approximately 1.5 to 2 hours to complete.

Like the core exercise booklet, the activities in the main exercise booklet were designed to resemble literacy-related activities that people commonly perform, such as reading a newspaper or calculating the sale price of an item. In many of the tasks, the respondent was given a piece of written material (such as a form, schedule, or article) and then asked a set of questions based on that material.

Sixteen versions of the main exercise booklet were created, each containing an assortment of literacy and numeracy tasks and each requiring approximately 45 to 55 minutes to complete. Twelve of the booklets were created in English, and four were in Spanish. The latter booklets contained only prose and document tasks, and no numeracy tasks. Each student who proceeded to the main exercise booklet was administered one version of the booklet—that is, English or Spanish, but not both.

## Sample Design

To ensure that the AEPS study results would be generalizable to adult learners nationwide who were enrolled in various types of adult education and literacy programs, it was necessary to select a high quality sample. Accordingly, the study design for the Learner Survey called for a multistage probability sample of learners enrolled in eligible adult education programs within the 50 states and the District of Columbia.

The sampling process for the Learner Survey consisted of four stages: drawing a subsample of programs from the larger sample of those participating in the Program Survey, sampling sites from these programs, sampling classes from these sites, and finally, sampling adult learners from these classes. Quality assurance measures were carried out at each stage of the process to ensure the integrity of the final sample.

The first stage of the sampling process involved selecting a subsample of 250 programs from the 1,770 programs initially sampled for the program questionnaire component. The list of programs was sorted hierarchically by geographic region, provider type (correctional institution, community college, etc.), predominating course type (ESL, ABE, ASE), and enrollment. Then, from this list, 250 programs were selected using a probability proportionate to the square root of total enrollment. (For programs enrolling fewer than 5 learners, a minimum total enrollment of 5 was assigned to give every program a chance of selection.) Since the initial program questionnaire sample and the subsample were each selected with probability proportionate to the square root of size, the product of the respective probabilities of selection from each phase results in an overall probability of selection that is proportionate to size.

The 250 selected programs were asked to provide a list of geographic locations (or sites) within their program where adult education classes were administered. The resulting list of 1,342 sites served as the sampling frame for the second stage of sample selection: the sampling of sites. A total of 350 sites were selected for the Learner Survey sample, again with probability proportionate to size, based on enrollment. Due to staffing limitations within programs, only one to three sites were selected per program. Small sites serving fewer than 15 learners (representing about 24 percent of the listed sites, and approximately 2 percent of the adult education population overall) were excluded from the site sampling frame to help protect against a potential shortfall in sample yield and also to maximize efficient use of staff. The slight undercoverage of the adult education population that resulting from this decision was adjusted for during the weighting process.

Each of the 350 sites selected for the Learner Survey was asked to provide a listing of the adult education classes provided at that site during the spring of 2003, excluding beginning literacy ESL classes as well as classes with less than 12 hours of instruction since July 1, 2002. Sites were also asked to submit information about classes provided (e.g., anticipated class size, course type, expected percentage of Hispanic learners, teacher's name). Of the 350 sites in the sampling frame, 269 responded and were eligible, yielding a list of 2,932 classes. (Some of these classes were subsequently combined to meet a minimum measure of size for sampling, so the resulting frame contained 2,291 classes.)

This list provided the frame for the third stage of the sampling process: sampling classes. Two classes were selected from each site, and the EA created a list of learners in each sampled class, with assistance from the teacher or program coordinator. Consistent with the National Reporting System of the Office of Vocational and Adult Education, learners were defined as individuals who were at least 16 years of age and were not enrolled in public or private high school. They also had to have received at least 12 hours of instruction in the adult education program since July 1, 2002. The number of learners (i.e., individual learners or unduplicated enrollment) was determined for each of the following course types: ESL total, ABE/ASE total, grand total enrollment, and percent of Hispanic learners. As noted earlier, learners in ESL beginning literacy classes were excluded from the listing.

The list of learners provided the frame for the fourth stage of sampling. Learners were sampled in two waves in order to conduct the sampling as close as possible to the time when the learner lists were created within the class. Once the EAs had compiled a list of learners for each class, they sampled and conducted assessments with all of the selected learners. The process was then repeated for a second class. This was an important improvement made to the sampling procedure based on the field test experience.

A maximum sample size of 40 learners was allowed for each site, and the minimum sample size was set to 5. The sampling rate within classes was the assigned sample size divided by the expected number of learners.

The study design called for interviewing 5,000 students enrolled in ABE, ASE, and ESL classes. Two thousand non-Hispanic students and 2,000 Hispanic students were sampled to be interviewed in English, and 1,000 Hispanic students were sampled to be interviewed in Spanish.

## Staff Recruitment and Training

**Recruitment.** Conducting the Learner Survey was a staff-intensive process, as the assessments were administered in person rather than by mail. Accordingly, from the fall of 2002 through the spring of 2003, it was necessary to recruit and train a large staff, including two field managers, 16 supervisors, and 232 exercise administrators (EAs). Program coordinators (PCs)—the staff at each program or site who assisted EAs in obtaining lists of classes and students and encouraging cooperation in the survey—were also recruited.

Field managers reported directly to the project director on all aspects of data collection. Supervisors were responsible for coordinating field operations and maintaining close contact with the field managers on issues of production, sampling and contact procedures, recordkeeping, shipment of finalized work, and other issues. Supervisors also monitored the work of their EAs. Each supervisor was assigned a region containing about 15 sites and supervised about 15 EAs. If more than one site

per program was sampled, all sites from the program were assigned to the same supervisor. Factors such as site location, proximity to supervisor, size, and anticipated difficulty of data collection were considered in making the supervisory assignments.

**Training.** Training was vital to the success of the Learner Survey, as the procedures used to sample participants and to administer the survey instruments had to be rigorously applied. Training manuals and administration guides were developed for supervisors and EAs to explain the study goals and survey procedures and to provide detailed step-by-step instructions for administering the survey instruments.

The training of field managers, supervisors, and exercise administrators began in February 2003. The EA training was conducted at four regional training sessions held in Los Angeles and Dallas. These intensive sessions covered the administration of all study instruments, procedures for working with supervisors and PCs, as well as sampling, student contact, administrative, and quality control procedures. Trainers provided the EAs with extensive hands-on experience with the instruments and study materials. In addition to the regular EA training (13 hours), approximately 100 bilingual EAs completed an additional 3.5 hours of training on the administration of the study instruments in Spanish.

Program coordinators were trained for their more limited role via independent study using a detailed home study manual. Westat project staff remained available to PCs by telephone and e-mail to answer questions and offer assistance in fulfilling their role.

## Data Collection

In the summer and fall of 2002, the National Center for Education Statistics, the Office of Vocational and Adult Education, Westat, and Educational Testing Service began to prepare for the Learner Survey data collection, drawing on experience gained during the earlier field test. In addition to conducting the training program and refining the assessment administration procedures, staff focused on conducting outreach, publicizing the study, designing quality control measures, and establishing an automated system for receiving and processing the completed survey materials.

**Outreach.** Approximately one year before data collection began, staff from the National Center for Education Statistics, the Office of Vocational and Adult Education, Westat, and Educational Testing Service undertook a national outreach effort to raise awareness among adult education state directors and program staff about the goals and timetables for the Learner Survey. The study collaborators developed a variety of introductory materials to convince programs and respondents of the study's legitimacy and importance. A student flyer, a teacher flyer, and a handout containing answers to frequently asked questions were prepared. An endorsement letter from the U.S. Department of Education was produced in both English and Spanish. A poster and 10-minute video were also created for program coordinators to use in promoting the study. In all of these outreach efforts, appearance, content, and wording were key considerations. The introductory materials provided a toll-free Westat telephone number that survey participants could call if they wanted additional information about the study.

**Survey mailing.** The data collection for the Learner Survey began in March 2003 and continued through June. Each EA was sent a shipment containing a bundle of background questionnaires and bundles of exercise envelopes containing all of the materials needed to complete the assessment portion of the interview: core exercise booklets, scoring sheets for the core exercise booklet, and main exercise booklets.

EAs received language materials appropriate to their sites. Thus, EAs working at English-only sites received only English background questionnaires and exercise envelopes. EAs working at bilingual sites received two bundles of background questionnaires—one in English, and one in Spanish. EAs at the bilingual sites also received two bundles of exercise envelopes, one for administration to non-Hispanic students (containing all English envelopes) and one for Hispanic students. The bundle for Hispanic students contained either all Spanish envelopes (at ABE/ASE sites) or a mix of 1/3 Spanish envelopes spiraled in with 2/3 English envelopes (at ESL sites). The envelopes were bundled in a precise sequence at the home office, in keeping with the study design. EAs were instructed to select the background questionnaire from the top of the appropriate bundle (English or Spanish) when interviewing students.

Finally, the EAs were given copies of a noninterview response form (NIRF) to use in documenting cases in which a student either did not begin or did not complete the entire interview/assessment process.

**Student contact and follow-up.** EAs approached teachers of classes sampled for the study either before class or during a prearranged meeting. They introduced the study to the teacher, requested a class roster, and encouraged the teacher to cooperate in and lend their support to the study. Most teachers were highly supportive, encouraged student participation, and assisted EAs in scheduling interviews.

EAs introduced the study to students just prior to the beginning of their class session. If the students who were sampled were willing to participate, EAs scheduled their interview during that class period. If students were unwilling or unable to complete the interview during class, EAs set appointments for mutually convenient times.

When EAs were unable to contact students in person during class time, they left a copy of a student flyer with the teacher for the student to pick up during his/her next class. The flyer contained a toll-free number for respondents to call to verify the legitimacy of the survey, receive additional information, or (re)schedule an appointment. If students were continually absent from class, EAs tried to make contact by phone and in writing. PCs also served as a resource in obtaining additional contact information for hard-to-locate students.

EAs were trained in techniques for gaining teacher cooperation, contacting students, handling reluctant respondents, answering questions, and avoiding refusals. However, if the EA had made at least four unsuccessful attempts to contact a student and been unable to complete an interview/assessment, and if the EA had discussed the case with his/her supervisor, the case was categorized as a nonresponse. In this situation, the EA completed a noninterview response form, which recorded data on the reason(s) for refusal.

**Payments.** The study design called for students to be paid \$30 upon completion of the interview/assessment. EAs were paid \$80 for each interview they completed. (No compensation was provided for partially completed or nonresponse cases.) PCs received \$200 for their cooperation and assistance in the study.

**Validation.** A sample of 45 classes across 45 sites was selected, and half of all students in these classes (for a total of about 300 students) were selected for a validation study. Westat staff visited the sampled classes and conducted in-person validations. Students who were not in class at the time of the visit were contacted by phone. Validations were completed with 83.3 percent of the original sample and an additional 16.4 percent from a supplemental sample, yielding a total response rate of 99.7 percent.

Without exception, all students contacted verified that they had been interviewed and reimbursed according to the study procedures.

**Materials receiving.** EAs returned all completed materials to Westat, where project staff reviewed each instrument for accuracy and completeness before entered it into a receipt control system. Weekly production reports were generated to provide information about the receipt of completed materials.

**Response rates.** During the 17-week data collection period (March to June 2003), interviews and assessments were conducted at 269 sites in 162 programs throughout the United States. A total of 6,109 assessments were administered, exceeding the goal of 5,000 respondents.

Response rates were calculated separately for each stage of the sampling process in the participant study: the sampling of programs (87 percent of the sampled programs responded), sites (85 percent responded), classes (100 percent responded), and learners. For this final stage, response rates were calculated separately for the background questionnaire (77 percent) and the exercise booklet (100 percent).

The overall weighted response rate is equal to the product of the response rates at each sampling stage, including the two data collection activities in the learner sampling stage. Overall, the weighted response rate for the Learner Survey was 56.2 percent.

Reasons for nonresponse were analyzed, and several categories of reasons were salient. While most students were willing or even eager to participate in the survey, some cited a lack of time, schedule conflicts, fear or distrust of government, and immigration concerns as reasons for not wanting to participate. Approximately 6 percent of the nonresponse cases were categorized as “maximum contacts.” In these situations, EAs made at least four attempts to contact students but were unsuccessful. Another 6 percent of the nonresponse cases were attributed to student disabilities or to being unavailable during the field period for a variety of reasons, such as being out of town or in lockdown status in a correctional institution. Roughly 4 percent were categorized as “moved, unable to trace,” and another 3 percent were classified simply as “refusal.”

## Data Entry, Cleaning, and Weighting

Westat staff coded, keyed, and edited the data from the background questionnaires and the core exercise scoring sheets. When background questionnaires or core exercise scoring sheets were found to contain missing or discrepant information, these materials were referred to the appropriate supervisor for clarification. If patterns of problems arose, the study manager disseminated information to all field managers and supervisors, who then communicated this information to their EAs. In some instances, particular EAs required additional training in specific procedures.

Westat data entry personnel coded and keyed the data from the background questionnaire using a codebook which contained all survey items and allowable responses, record layout information, and coding information. These data then underwent quality control steps to eliminate errors and enforce coding standards. The core exercise scoring sheets were also coded and subjected to quality control measures to ensure that EAs recorded appropriate response codes.

A preliminary review of the data indicated that the core exercises were being scored correctly and the assessment was being administered in accordance with study procedures. The number of data collection errors detected was no greater than in similar studies using professional interviewers as data collectors. Most response errors

were found in the background questionnaire (e.g., skip patterns followed incorrectly, or multiple responses coded for questions in which only one response was requested). All errors found on the background questionnaires and core exercise scoring sheets were updated and the edits rerun until the data contained no errors.

As with the Program Survey, sample weights were produced for the Learner Survey for several reasons. Weighting was necessary to provide unbiased estimates; to minimize biases arising from differences between cooperating and noncooperating programs, sites, classes, and learners; to protect against a small number of learners dominating domain estimates due to large weights; and to reduce sampling errors through the use of auxiliary data on known population characteristics.

The weighting process for the Learner Survey consisted of four major processing steps, corresponding to the four levels of sampling units: programs, sites, classes, and learners. Because nonresponse occurred at each stage of data collection (that is, some of the sampled programs did not participate, some of the sampled sites did not participate, and so on) a nonresponse adjustment was conducted at each stage of the process, after the base weights were computed. An analysis conducted by Lê, Krenzke, and Mohadjer (2004) showed that the nonresponse bias in AEPS estimates was not substantial, and that the weight adjustments were effective in reducing this bias.

In the first stage of the weighting process, program-level base weights were computed and replicate weights were generated using the stratified jackknife approach. A program-level nonresponse adjustment was then conducted. Second, site-level base weights were computed, and a site-level nonresponse adjustment was conducted. Third, class base weights were computed, and a class-level nonresponse adjustment was conducted. Fourth, learner base weights were produced, and a learner weight nonresponse adjustment was conducted.

During this fourth step, Spanish and English sample weights were also created, and a series of raking and trimming operations was undertaken. After an initial round of raking, extreme learner weights were trimmed so as to reduce the variability in the weights. The percentage of records trimmed was no more than 3.5 percent in any domain. After the trimming, another round of raking was conducted to ensure that the estimates matched known population control totals. This step resulted in very minor adjustments to the weights.

Quality checks were a standard procedure throughout the weighting process. Each stage included a reconciliation step to resolve any discrepancies between disposition codes from the sample management system and the files containing the collected data. The resulting learner weights are a product of the learner base weight, the trimming factor, the nonresponse adjustment factor, and the raking factor. The weighted data therefore represent adult education learners enrolled during the 2002–2003 school year in ESL, ABE, and ASE classes, excluding ESL beginning literacy programs.

## Scoring

To ensure accurate and consistent scoring, individuals who worked as scorers received intensive training in scoring responses to open-ended items. Written scoring guides provided detailed guidelines to be followed for each item. The following section describes the procedures used to monitor the scoring and the methods used to ensure accurate and consistent scoring.

Even though scorers received intensive training on applying established scoring criteria to the open-ended cognitive items in the assessment, rescoring helps improve the accuracy of scoring by aligning scoring criteria through studying unusual responses among scorers. Therefore, rescoring of about 20% of the response booklets was an important tool to improve data quality. In addition, it helps identify scorers who are making errors and require additional training. Early identification of such scorers is crucial to ensure accurate scores overall. A procedure was set up to monitor scoring accuracy by following a schedule of variable sampling ratio. At the beginning of scoring activities, almost all responses were rescored to identify inaccurate scorers as well as any unique or difficult responses that were addressed not in the scoring manual. After satisfactory accuracy was attained, the rescoring ratio was dropped to maintenance level in order to monitor the level of accuracy by all scorers. Average agreements were calculated as an average of agreement proportion across all items. Some precautions had to be taken to ensure the independence of the first and the second scores. For example, the first and second scoring was conducted by two different individuals, and the second scorer was not able to see the scores given by the first scorer.

Since rescoring was used as a tool to improve quality control, updates based on rescoring were not made to the AEPS database. A few scorers were found to be unreliable and received additional training or were released. If a first scorer was found to be inaccurate and making systematic errors, only the first scores for the relevant booklets were replaced with correct scores. Second scores were never replaced, even if they were found to be erroneous. If instructions in the scoring manual were found to be ambiguous, changes were made. Only first scores reflected such changes, making them more accurate and consistent than the second scores. However, comparisons with the second scores which still retaining errors would underestimate the rescore reliability.

The amount of the underestimation of reliability was found to be very small, with reliabilities above 95% for English items and 96% for Spanish items. These values compare favorably to the constructed item response rescoring of other large scale surveys such as the NALS, IALS and ALL that had average rescoring reliability of 97%. In order to achieve accurate and consistent scoring across the English and Spanish items and thereby establish comparability of results, Spanish items were scored by bilingual scorers who scored English as well as Spanish items. This procedure ensured that the same standard was applied to scoring in each language.

## Scaling and Analysis

Scaling and analyses of the AEPS were carried out separately for each domain of cognitive skills: prose, document, and numeracy, and also for each language. By creating a separate scale for each of three areas, it remains possible to explore potential differences in subpopulation performance across these areas of skills.

The scaling model used for the AEPS is the two-parameter logistic; a mathematical model for the probability that a particular person will respond correctly to a particular item from a single domain of items. This model has been used for all previous adult literacy surveys.

Testing the assumptions of the IRT model, especially the assumption of conditional independence, is a critical part of the data analyses. The conditional independence means that respondents with the identical ability have a similar probability of producing a correct response on an item regardless of their background membership. This assumption applies to three samples of AEPS study who received

English and Spanish booklets. Serious violation of the conditional independence assumption would undermine the accuracy and integrity of the results. It is a common practice to expect a portion of items to be found not suitable for a particular subpopulation. Thus, while the item parameters were being estimated, empirical conditional percentages correct were monitored across the samples. Based on the equivalency of observed conditional probabilities, common item parameters across three samples as well as to the past surveys were identified and unique item parameters to each sample of AEPS were calculated. Out of 100 items, 98 were common for non-Hispanics who took the English version of the assessment, and 89 items were common for Hispanics who took English items. However, only 50 items were common for the Hispanic sample who took Spanish items. Common item parameters establish the comparability of proficiency values. The Spanish instruments showed more deviations from common item parameters than customary seen in the previous surveys of multiple languages.

Most tests of cognitive skill are concerned with accurately assessing the performance of individual respondents for the purposes of diagnosis, selection, or placement. Regardless of which measurement model is being used, classical test theory or item response theory, the accuracy of these measurements can be improved—that is, the amount of measurement error can be reduced—by increasing the number of items given to the individual. Thus, achievement tests containing more than 70 items are common. Since the uncertainty associated with each  $\theta$  is negligible, the distribution of  $\theta$  or the joint distribution of  $\theta$  with other variables can be approximated using individual  $\theta$ s. It is a different story for estimating the performance of a group of respondents.

When analyzing the distribution of proficiencies in a group, more efficient estimates can be obtained from a sampling design similar to the one used in the AEPS. The survey solicited relatively few responses from each sampled respondent while maintaining a wider range of content representation when responses were summed for all respondents. The advantage of estimating population characteristic more efficiently is offset by the inability to make precise statements about individuals. Uncertainty associated with individual  $\theta$  estimates is too large to be ignored under this condition. Point estimates of proficiency that are, in some sense, optimal for each sampled respondent could lead to seriously biased estimates of population characteristics (Wingersky, Kaplan, and Beaton 1987). Plausible value methodology was developed as a way to estimate key population features consistently. Plausible values of each respondent represent the certainty or absence of errors of the proficiency estimates of the respondent through variability of multiple of plausible values. In other words, the measurement error is represented by the variability of plausible values.

Reported plausible values were calculated based on a complex multivariate latent regression model. The model, originally developed in the 1980s, has been in used in operational assessments since the National Assessment of Educational Progress adopted this approach based on research at ETS. A multivariate model takes advantage of inferential information coming from often highly correlated subscales, thus making the estimation more efficient and reducing measurement errors. Higher correlations lead to further reduction of measurement errors.

The main sources of errors of population statistics are measurement errors and sampling errors. As noted earlier, measurement errors can be estimated using the multiple plausible values. The identical procedures described in the program questionnaire data analysis section for estimating the sampling errors using the replicate weights were applied here. Since these two types of errors are independent they can be combined together to represent the standard errors of measurement for the statistics of interest.



# Appendix B1

## Chapter 1 Tables

### Table of Contents

|           |  |     |
|-----------|--|-----|
| Table 1.1 | Size of adult education programs in respect to the number of programs, the number of sites, the number of participants and the total budget, overall and by type of provider | 223 |
| Table 1.2 | Enrollment and attendance hours, by type of instruction  | 224 |
| Table 1.3 | Sources of funding reported as percentage of programs' total budget, overall and by type of provider   | 225 |
| Table 1.4 | Expenditure categories reported in respect to total budget   | 227 |
| Table 1.5 | Expenditure categories reported as percentage of the total budget, by type of provider   | 228 |
| Table 1.6 | Level of involvement of public and community organizations with adult education programs   | 230 |
| Table 1.7 | Hours of classroom instruction between pre- and post-test  | 231 |
| Table 1.8 | A profile of adult learners' progress, by type of instruction  | 231 |
| Table 1.9 | Instructional time, by type of instruction   | 232 |

## Table of Contents

|            |   |     |
|------------|---|-----|
| Table 1.10 | Type of enrollment, by type of provider   | 232 |
| Table 1.11 | Distribution and number of staff members, by type of staff and role                     | 233 |
| Table 1.12 | Experience of instructors in current program  | 234 |
| Table 1.13 | Minimum educational requirements for instructors, by type of instruction                | 234 |
| Table 1.14 | Instructors' certification credentials, by type of instruction                          | 235 |
| Table 1.15 | Distribution and number of staff members, by type of staff and type of provider         | 236 |
| Table 1.16 | Characteristics of adult education programs across and within OVAE geographical regions | 237 |
| Table 1.17 | A profile of adult education providers  | 238 |

TABLE 1.1

**Size of adult education programs in respect to the number of programs, the number of sites, the number of participants and the total budget, overall and by type of provider**

|   | Providers                |         |                               |        |                    |         |
|---|--------------------------|---------|-------------------------------|--------|--------------------|---------|
|   | Local education agencies |         | Community-based organizations |        | Community colleges |         |
|   |                          | S.E.    |                               | S.E.   |                    | S.E.    |
| <b>Number of programs</b>                     |                          |         |                               |        |                    |         |
| Number of programs                            | 1,673                    | n.a.    | 753                           | n.a.   | 525                | n.a.    |
| Percentage                                    | 53.8                     | (5.4)   | 24.2                          | (3.2)  | 16.9               | (1.9)   |
| <b>Sites where services are provided</b>      |                          |         |                               |        |                    |         |
| Mean  | 8.9                      | (0.9)   | 10.8                          | (1.3)  | 12.0               | (0.7)   |
| 10th percentile                               | 1.1                      | (0.1)   | 0.9                           | (0.0)  | 2.0                | (0.2)   |
| 25th percentile                               | 2.1                      | (0.1)   | 1.1                           | (0.0)  | 3.2                | (0.6)   |
| Median  | 4.2                      | (1.0)   | 2.9                           | (0.2)  | 8.1                | (0.2)   |
| 75th percentile                               | 9.2                      | (1.2)   | 7.0                           | (0.5)  | 14.8               | (0.7)   |
| 90th percentile                               | 16.1                     | (0.4)   | 22.2                          | (5.6)  | 25.2               | (1.2)   |
| Total number of sites                         | 14,595.0                 | n.a.    | 7,756.0                       | n.a.   | 6,143.0            | n.a.    |
| Percentage                                    | 54.2                     | (3.5)   | 23.8                          | (3.3)  | 16.9               | (1.9)   |
| <b>Participants attending programs</b>        |                          |         |                               |        |                    |         |
| Mean  | 979.0                    | (115.0) | 294.0                         | (44.0) | 1,410.0            | (160.0) |
| 10th percentile                               | 64.0                     | (11.0)  | 46.0                          | (3.0)  | 160.0              | (7.0)   |
| 25th percentile                               | 134.0                    | (21.0)  | 65.0                          | (4.0)  | 359.0              | (46.0)  |
| Median  | 336.0                    | (22.0)  | 169.0                         | (17.0) | 702.0              | (62.0)  |
| 75th percentile                               | 730.0                    | (67.0)  | 317.0                         | (31.0) | 1,460.0            | (246.0) |
| 90th percentile                               | 1,548.0                  | (76.0)  | 664.0                         | (93.0) | 2,737.0            | (215.0) |
| Total number of participants                  | 1,638,039.0              | n.a.    | 221,301.0                     | n.a.   | 740,707.0          | n.a.    |
| Percentage                                    | 60.0                     | (3.2)   | 8.1                           | (1.3)  | 27.1               | (2.5)   |
| <b>Total budget (in thousands of dollars)</b> |                          |         |                               |        |                    |         |
| Mean  | \$571.0                  | (85.0)  | \$254.0                       | (23.0) | \$616.0            | (54.0)  |
| 10th percentile                               | \$46.0                   | (4.0)   | \$33.0                        | (7.0)  | \$90.0             | (15.0)  |
| 25th percentile                               | \$83.0                   | (7.0)   | \$64.0                        | (6.0)  | \$177.0            | (36.0)  |
| Median  | \$192.0                  | (18.0)  | \$121.0                       | (16.0) | \$338.0            | (18.0)  |
| 75th percentile                               | \$419.0                  | (41.0)  | \$299.0                       | (11.0) | \$620.0            | (28.0)  |
| 90th percentile                               | \$915.0                  | (45.0)  | \$607.0                       | (90.0) | \$1,153.0          | (55.0)  |
| Total budget                                  | \$956,286.9              | n.a.    | \$191,666.4                   | n.a.   | \$323,578.7        | n.a.    |
| Percentage                                    | 57.9                     | (4.2)   | 11.6                          | (1.6)  | 19.6               | (2.3)   |

**TABLE 1.1 (CONCLUDED)**

**Size of adult education programs in respect to the number of programs, the number of sites, the number of participants and the total budget, overall and by type of provider**

|   | Providers                 |         |            |         |                      |               |
|---|---------------------------|---------|------------|---------|----------------------|---------------|
|   | Correctional institutions |         | Other      |         | Overall              |               |
|   |                           | S.E.    |            | S.E.    |                      | S.E.          |
| <b>Number of programs</b>                     |                           |         |            |         |                      |               |
| Number of programs                            | 75                        | n.a.    | 81         | n.a.    | <b>3,108.0</b>       | n.a.          |
| Percentage                                    | 2.4                       | (0.3)   | 2.6        | (0.6)   | <b>100.0</b>         | <b>(0.0)</b>  |
| <b>Sites where services are provided</b>      |                           |         |            |         |                      |               |
| Mean  | 6.5                       | (0.9)   | 5.5        | (0.9)   | <b>9.7</b>           | (0.6)         |
| 10th percentile                               | 0.9                       | (0.0)   | 1.0        | (0.2)   | <b>1.0</b>           | (0.0)         |
| 25th percentile                               | 1.1                       | (0.1)   | 1.9        | (2.9)   | <b>2.0</b>           | (0.1)         |
| Median  | 2.2                       | (0.9)   | 5.1        | (0.9)   | <b>4.2</b>           | (1.1)         |
| 75th percentile                               | 8.2                       | (8.6)   | 8.0        | (0.2)   | <b>9.9</b>           | (0.2)         |
| 90th percentile                               | 19.1                      | (3.2)   | 9.0        | (0.1)   | <b>19.2</b>          | (2.3)         |
| Total number of sites                         | 481.0                     | n.a.    | 447.0      | n.a.    | <b>29,424.0</b>      | n.a.          |
| Percentage                                    | 2.4                       | (0.3)   | 2.7        | (0.7)   | <b>100.0</b>         | (0.0)         |
| <b>Participants attending programs</b>        |                           |         |            |         |                      |               |
| Mean  | 1,188.0                   | (201.0) | 486.0      | (93.0)  | <b>878.0</b>         | (60.0)        |
| 10th percentile                               | 89.0                      | (13.0)  | 30.0       | (127.0) | <b>58.0</b>          | (4.0)         |
| 25th percentile                               | 171.0                     | (7.0)   | 174.0      | (103.0) | <b>127.0</b>         | (15.0)        |
| Median  | 461.0                     | (318.0) | 306.0      | (90.0)  | <b>318.0</b>         | (23.0)        |
| 75th percentile                               | 1,245.0                   | (461.0) | 559.0      | (204.0) | <b>731.0</b>         | (21.0)        |
| 90th percentile                               | 3,921.0                   | (924.0) | 1,061.0    | (2.0)   | <b>1,622.0</b>       | (73.0)        |
| Total number of participants                  | 89,076.0                  | n.a.    | 39,389.0   | n.a.    | <b>2,728,512.0</b>   | n.a.          |
| Percentage                                    | 3.3                       | (0.6)   | 1.4        | (0.3)   | <b>100.0</b>         | (0.0)         |
| <b>Total budget (in thousands of dollars)</b> |                           |         |            |         |                      |               |
| Mean  | \$1,946.0                 | (607.0) | \$437.0    | (85.0)  | <b>\$532.0</b>       | <b>(45.0)</b> |
| 10th percentile                               | \$50.0                    | (15.0)  | \$12.0     | (76.0)  | <b>\$43.0</b>        | <b>(5.0)</b>  |
| 25th percentile                               | \$80.0                    | (23.0)  | \$104.0    | (38.0)  | <b>\$84.0</b>        | <b>(5.0)</b>  |
| Median  | \$202.0                   | (46.0)  | \$168.0    | (47.0)  | <b>\$199.0</b>       | <b>(11.0)</b> |
| 75th percentile                               | \$785.0                   | (166.0) | \$350.0    | (226.0) | <b>\$428.0</b>       | <b>(15.0)</b> |
| 90th percentile                               | \$3,911.0                 | (2.0)   | \$1,786.0  | (238.0) | <b>\$857.0</b>       | <b>(21.0)</b> |
| Total budget                                  | \$145,889.2               | n.a.    | \$35,420.6 | n.a.    | <b>\$1,652,841.8</b> | n.a.          |
| Percentage                                    | 8.8                       | (2.8)   | 2.1        | (0.4)   | <b>100.0</b>         | <b>(0.0)</b>  |

n.a. not applicable

**TABLE 1.2**

**Enrollment and attendance hours, by type of instruction**

| Type of instruction          | Learners enrolled |               |              |               |                  |              | Number of attendance hours |                  |               |                  |
|------------------------------|-------------------|---------------|--------------|---------------|------------------|--------------|----------------------------|------------------|---------------|------------------|
|                              | Mean              | S.E.          | Median       | S.E.          | Total            | %            | Mean                       | S.E.             | Median        | S.E.             |
| Adult basic education        | 338.5             | (9.4)         | 132.1        | (14.4)        | 1,051,941        | 38.6         | 28,670                     | (1,970.0)        | 7,550         | (400.0)          |
| Adult secondary education    | 162.6             | (9.5)         | 50.8         | (2.0)         | 505,290          | 18.5         | 11,350                     | (670.0)          | 2,100         | (120.0)          |
| English as a second language | 377.0             | (46.0)        | 43.0         | (7.0)         | 1,171,281        | 42.9         | 37,100                     | (6,900.0)        | 2,100         | (400.0)          |
| <b>Total</b>                 | <b>878.0</b>      | <b>(60.0)</b> | <b>318.0</b> | <b>(23.0)</b> | <b>2,728,512</b> | <b>100.0</b> | <b>76,600</b>              | <b>(8,400.0)</b> | <b>17,100</b> | <b>(1,100.0)</b> |

TABLE 1.3

## Sources of funding reported as percentage of programs' total budget, overall and by type of provider

| Funding source                                      | 0 percent of their total budget |       | Between 1 and 50 percent of their total budget |       | More than 50 percent of their total budget |       | Mean  |       | Median |       |
|---|---------------------------------|-------|--|-------|--|-------|-------|-------|--------|-------|
|   | %                               | S.E.  | %  | S.E.  | %  | S.E.  | Value | S.E.  | Value  | S.E.  |
| <b>Overall</b>                                      |                                 |       |  |       |  |       |       |       |        |       |
| Federal government (all sources)                    | 20.5                            | (1.6) | 46.0   | (1.3) | 33.1                                       | (1.3) | 38.6  | (1.0) | 32.8   | (2.3) |
| State government (all sources)                      | 11.1                            | (0.9) | 41.9   | (1.7) | 46.6                                       | (1.7) | 49.4  | (1.2) | 47.7   | (4.0) |
| Local government (all sources)                      | 68.0                            | (1.7) | 26.8   | (1.6) | 4.7  | (0.6) | 8.6   | (0.6) | 0.1    | (0.0) |
| Foundation grants                                   | 83.2                            | (1.2) | 16.4   | (1.2) | 0.1  | (0.0) | 1.6   | (0.2) | 0.0    | (0.0) |
| Corporate giving                                    | 89.3                            | (0.8) | 10.4   | (0.8) | 0.0  | (0.0) | 0.5   | (0.1) | 0.0    | (0.0) |
| Civic / individual donations                        | 85.1                            | (1.3) | 14.5   | (1.2) | 0.2  | (0.1) | 1.6   | (0.3) | 0.0    | (0.0) |
| Fees charged to employers for workforce services    | 94.7                            | (0.5) | 5.0  | (0.5) | 0.0  | (0.0) | 1.3   | (0.2) | 0.0    | (0.0) |
| Fees charged to volunteers for training / materials | 97.0                            | (0.7) | 2.6  | (0.7) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0) |
| Fees charged to learners                            | 92.3                            | (0.7) | 7.3  | (0.7) | 0.0  | (0.0) | 1.4   | (0.2) | 0.0    | (0.0) |
| Other   | 86.2                            | (1.1) | 12.9   | (1.0) | 0.6  | (0.1) | 3.1   | (0.3) | 0.0    | (0.0) |
| <b>Local education agencies (LEA)</b>               |                                 |       |  |       |  |       |       |       |        |       |
| Federal government (all sources)                    | 17.9                            | (2.0) | 45.8   | (2.2) | 36.0                                       | (1.9) | 39.2  | (1.2) | 33.1   | (1.6) |
| State government (all sources)                      | 10.5                            | (1.4) | 39.9   | (1.8) | 49.3                                       | (2.1) | 50.6  | (1.5) | 50.0   | (1.4) |
| Local government (all sources)                      | 66.5                            | (2.2) | 27.5   | (1.6) | 5.7  | (1.2) | 8.1   | (1.1) | 0.1    | (0.0) |
| Foundation grants                                   | 91.6                            | (1.1) | 8.1  | (1.1) | 0.1  | (0.1) | 0.5   | (0.1) | 0.0    | (0.0) |
| Corporate giving                                    | 97.4                            | (0.6) | 2.4  | (0.4) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0) |
| Civic / individual donations                        | 94.3                            | (0.9) | 5.7  | (0.8) | 0.0  | (0.0) | 0.2   | (0.1) | 0.0    | (0.0) |
| Fees charged to employers for workforce services    | 95.5                            | (0.7) | 4.4  | (0.7) | 0.0  | (0.0) | 4.8   | (0.9) | 0.0    | (0.0) |
| Fees charged to volunteers for training / materials | 99.8                            | (0.1) | 0.0  | (0.0) | 0.0  | (0.0) | 4.5   | (0.9) | 0.0    | (0.0) |
| Fees charged to learners                            | 90.8                            | (1.0) | 9.0  | (0.0) | 0.0  | (0.0) | 0.4   | (0.1) | 0.0    | (0.0) |
| Other   | 92.5                            | (0.9) | 7.1  | (0.8) | 0.1  | (0.1) | 0.8   | (0.1) | 0.0    | (0.0) |
| <b>Community-based organizations (CBO)</b>          |                                 |       |  |       |  |       |       |       |        |       |
| Federal government (all sources)                    | 29.6                            | (3.8) | 43.2   | (3.2) | 26.8                                       | (2.4) | 37.3  | (2.7) | 27.2   | (4.4) |
| State government (all sources)                      | 12.0                            | (2.0) | 52.3   | (3.7) | 35.3                                       | (3.9) | 44.9  | (2.8) | 30.4   | (3.9) |
| Local government (all sources)                      | 64.5                            | (3.9) | 30.8   | (3.7) | 4.2  | (1.2) | 12.1  | (1.3) | 0.1    | (0.0) |
| Foundation grants                                   | 57.7                            | (3.6) | 41.9   | (3.6) | 0.3  | (0.1) | 5.1   | (0.4) | 0.2    | (0.0) |
| Corporate giving                                    | 66.6                            | (4.9) | 33.4   | (4.9) | 0.0  | (0.0) | 1.8   | (0.3) | 0.1    | (0.0) |
| Civic / individual donations                        | 57.5                            | (4.3) | 41.6   | (4.0) | 0.9  | (0.6) | 5.9   | (1.1) | 0.2    | (0.0) |
| Fees charged to employers for workforce services    | 93.2                            | (1.1) | 6.3  | (1.1) | 0.0  | (0.0) | 0.3   | (0.1) | 0.0    | (0.0) |
| Fees charged to volunteers for training / materials | 88.9                            | (2.9) | 10.6   | (2.9) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0) |
| Fees charged to learners                            | 93.9                            | (1.0) | 5.7  | (1.0) | 0.0  | (0.0) | 4.5   | (0.9) | 0.0    | (0.0) |
| Other   | 69.8                            | (4.3) | 29.0   | (4.1) | 0.8  | (0.2) | 8.8   | (1.4) | 0.1    | (0.0) |

TABLE 1.3 (CONCLUDED)

Sources of funding reported as percentage of programs' total budget

| Funding source                                      | 0 percent of their total budget |       | Between 1 and 50 percent of their total budget |       | More than 50 percent of their total budget |       | Mean  |       | Median |        |
|---|---------------------------------|-------|--|-------|--|-------|-------|-------|--------|--------|
|   | %                               | S.E.  | %  | S.E.  | %  | S.E.  | Value | S.E.  | Value  | S.E.   |
| <b>Community colleges (CC)</b>                      |                                 |       |  |       |  |       |       |       |        |        |
| Federal government (all sources)                    | 15.3                            | (3.1) | 51.2   | (2.9) | 32.9                                       | (2.6) | 39.7  | (1.8) | 37.0   | (3.0)  |
| State government (all sources)                      | 10.0                            | (1.3) | 38.7   | (3.4) | 50.6                                       | (3.7) | 50.0  | (2.5) | 51.3   | (2.9)  |
| Local government (all sources)                      | 73.6                            | (3.0) | 22.1   | (2.8) | 3.0  | (0.9) | 6.2   | (0.9) | 0.1    | (0.0)  |
| Foundation grants                                   | 89.3                            | (1.4) | 9.9  | (1.5) | 0.0  | (0.0) | 0.3   | (0.0) | 0.0    | (0.0)  |
| Corporate giving                                    | 94.6                            | (1.3) | 4.6  | (1.1) | 0.0  | (0.0) | 0.1   | (0.0) | 0.0    | (0.0)  |
| Civic / individual donations                        | 92.7                            | (1.7) | 6.5  | (1.7) | 0.0  | (0.0) | 0.1   | (0.0) | 0.0    | (0.0)  |
| Fees charged to employers for workforce services    | 92.9                            | (1.2) | 6.3  | (1.1) | 0.0  | (0.0) | 0.3   | (0.1) | 0.0    | (0.0)  |
| Fees charged to volunteers for training / materials | 99.0                            | (0.6) | 0.2  | (0.2) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to learners                            | 92.4                            | (1.5) | 6.6  | (1.5) | 0.2  | (0.2) | 0.5   | (0.1) | 0.0    | (0.0)  |
| Other   | 87.8                            | (2.5) | 9.8  | (2.5) | 1.7  | (0.6) | 2.8   | (0.7) | 0.0    | (0.0)  |
| <b>Correctional institutions</b>                    |                                 |       |  |       |  |       |       |       |        |        |
| Federal government (all sources)                    | 21.3                            | (4.1) | 48.5   | (7.3) | 30.1                                       | (6.2) | 35.1  | (3.6) | 18.8   | (12.5) |
| State government (all sources)                      | 24.8                            | (6.1) | 14.4   | (4.6) | 60.9                                       | (6.5) | 58.3  | (4.9) | 75.0   | (22.4) |
| Local government (all sources)                      | 80.9                            | (7.0) | 17.8   | (7.4) | 1.3  | (1.3) | 4.9   | (1.8) | 0.1    | (0.0)  |
| Foundation grants                                   | 96.3                            | (3.7) | 3.7  | (3.7) | 0.0  | (0.0) | 0.6   | (0.1) | 0.0    | (0.0)  |
| Corporate giving                                    | 95.0                            | (3.9) | 5.0  | (3.9) | 0.0  | (0.0) | 0.1   | (0.0) | 0.0    | (0.0)  |
| Civic / individual donations                        | 96.3                            | (3.7) | 3.7  | (3.7) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to employers for workforce services    | 100.0                           | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to volunteers for training / materials | 100.0                           | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to learners                            | 98.7                            | (1.3) | 1.3  | (1.3) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Other   | 95.0                            | (4.0) | 3.7  | (3.7) | 1.3  | (1.3) | 1.0   | (0.8) | 0.0    | (0.0)  |
| <b>Other</b>  |                                 |       |  |       |  |       |       |       |        |        |
| Federal government (all sources)                    | 21.6                            | (4.6) | 42.2   | (8.0) | 36.2                                       | (7.4) | 36.4  | (3.8) | 40.6   | (9.4)  |
| State government (all sources)                      | 10.3                            | (5.0) | 33.3   | (8.9) | 56.5                                       | (6.5) | 54.9  | (3.6) | 58.8   | (2.7)  |
| Local government (all sources)                      | 82.7                            | (5.3) | 12.8   | (4.1) | 4.4  | (1.4) | 6.1   | (1.9) | 0.1    | (0.0)  |
| Foundation grants                                   | 94.6                            | (1.6) | 5.4  | (1.6) | 0.0  | (0.0) | 0.2   | (0.1) | 0.0    | (0.0)  |
| Corporate giving                                    | 94.3                            | (4.6) | 5.7  | (4.6) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Civic / individual donations                        | 91.8                            | (4.2) | 8.2  | (4.2) | 0.0  | (0.0) | 0.1   | (0.0) | 0.0    | (0.0)  |
| Fees charged to employers for workforce services    | 100.0                           | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to volunteers for training / materials | 100.0                           | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Fees charged to learners                            | 100.0                           | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0   | (0.0) | 0.0    | (0.0)  |
| Other   | 88.7                            | (6.4) | 11.3   | (6.4) | 0.0  | (0.0) | 2.3   | (1.7) | 0.0    | (0.0)  |

TABLE 1.4

## Expenditure categories reported in respect to total budget

| Expenditure  | Percentage of total budget      |       |  |       |  |       |       |       |        |       |
|--|---------------------------------|-------|--|-------|--|-------|-------|-------|--------|-------|
|  | 0 percent of their total budget |       | Between 1 and 10 percent of their total budget |       | More than 50 percent of their total budget |       | Mean  |       | Median |       |
|  | %                               | S.E.  | %  | S.E.  | %  | S.E.  | Value | S.E.  | Value  | S.E.  |
| Administrative staff   | 13.7                            | (1.0) | 32.7   | (1.2) | 45.2                                       | (1.6) | 14.5  | (0.6) | 10.2   | (0.2) |
| Instructional staff<br>(creation / delivery of instruction)        | 3.9                             | (0.9) | 1.6  | (0.3) | 85.8                                       | (1.2) | 53.6  | (0.8) | 54.8   | (1.3) |
| Instructional staff<br>(professional development)                  | 35.8                            | (1.3) | 51.8   | (1.5) | 2.3  | (0.4) | 2.1   | (0.1) | 0.9    | (0.0) |
| Counseling staff   | 60.5                            | (1.9) | 20.9   | (1.4) | 7.6  | (0.9) | 2.4   | (0.2) | 0.1    | (0.0) |
| Clerical and other staff   | 30.1                            | (2.0) | 40.2   | (1.9) | 20.9                                       | (1.1) | 6.6   | (0.3) | 4.3    | (0.6) |
| Professional development services<br>(excluding staff salaries)    | 43.6                            | (1.6) | 45.0   | (1.7) | 0.4  | (0.1) | 1.2   | (0.1) | 0.2    | (0.0) |
| Instructional materials / equipment                                | 7.1                             | (1.0) | 68.6   | (1.6) | 16.2                                       | (1.0) | 6.8   | (0.2) | 4.9    | (0.1) |
| Office equipment / furniture / supplies                            | 32.2                            | (1.2) | 55.7   | (1.4) | 2.1  | (0.4) | 1.9   | (0.1) | 0.9    | (0.0) |
| Instructional technology<br>(hardware / software)                  | 39.2                            | (1.0) | 46.7   | (1.1) | 3.0  | (0.3) | 2.0   | (0.1) | 0.8    | (0.1) |
| Technology support services<br>(including staff, consultants, etc) | 62.5                            | (1.7) | 24.6   | (1.8) | 1.1  | (0.2) | 1.1   | (0.1) | 0.1    | (0.0) |
| Facilities / utilities / custodial services                        | 41.9                            | (1.2) | 38.7   | (1.3) | 8.7  | (0.9) | 3.5   | (0.2) | 0.8    | (0.2) |
| Others   | n.a.                            | n.a.  | n.a.   | n.a.  | n.a.                                       | n.a.  | n.a.  | n.a.  | n.a.   | n.a.  |

| Expenditure  | Dollar amounts |           |               |           |             |
|--|----------------|-----------|---------------|-----------|-------------|
|  | Mean (/100)    |           | Median (/100) |           | Sum         |
|  | Value (\$)     | S.E.      | Value (\$)    | S.E.      | Value (\$)  |
| Administrative staff   | 40,330.0       | (1,860.0) | 20,770.0      | (1,900.0) | 77,567,199  |
| Instructional staff<br>(creation / delivery of instruction)        | 20,280.0       | (1,670.0) | 8,010.0       | (700.0)   | 392,537,674 |
| Instructional staff<br>(professional development)                  | 6,080.0        | (580.0)   | 1,180.0       | (200.0)   | 11,114,092  |
| Counseling staff   | 10,090.0       | (990.0)   | 10.0          | (0.0)     | 17,967,532  |
| Clerical and other staff   | 30,110.0       | (2,970.0) | 6,740.0       | (1,280.0) | 57,054,469  |
| Professional development services<br>(excluding staff salaries)    | 3,600.0        | (680.0)   | 420.0         | (210.0)   | 6,404,524   |
| Instructional materials / equipment                                | 19,980.0       | (1,060.0) | 20,890.0      | (1,150.0) | 43,649,005  |
| Office equipment/furniture/supplies                                | 5,640.0        | (550.0)   | 1,120.0       | (310.0)   | 10,308,409  |
| Instructional technology<br>(hardware / software)                  | 7,340.0        | (490.0)   | 980.0         | (340.0)   | 13,164,545  |
| Technology support services<br>(including staff, consultants, etc) | 3,970.0        | (550.0)   | 10.0          | (0.0)     | 6,931,698   |
| Facilities / utilities / custodial services                        | 16,050.0       | (1,920.0) | 800.0         | (490.0)   | 29,219,523  |
| Others   | n.a.           | n.a.      | n.a.          | n.a.      | 51,613,453  |

TABLE 1.5

Expenditure categories reported as percentage of the total budget, by type of provider

| Expenditure  | 0 percent of their total budget |       | Between 1 and 10 percent of their total budget |       | More than 50 percent of their total budget |       | Mean  |       | Median |       |
|--|---------------------------------|-------|--|-------|--|-------|-------|-------|--------|-------|
|  | %                               | S.E.  | %  | S.E.  | %  | S.E.  | Value | S.E.  | Value  | S.E.  |
| <b>Local education agencies (LEA)</b>                              |                                 |       |  |       |  |       |       |       |        |       |
| Administrative staff   | 15.4                            | (1.6) | 34.4   | (2.0) | 49.3                                       | (4.4) | 11.9  | (0.4) | 9.4    | (1.0) |
| Instructional staff<br>(creation / delivery of instruction)        | 1.1                             | (0.2) | 0.9  | (0.3) | 89.0                                       | (1.2) | 56.9  | (0.7) | 56.7   | (1.5) |
| Instructional staff<br>(professional development)                  | 33.7                            | (1.6) | 52.8   | (1.9) | 2.3  | (0.6) | 2.0   | (0.1) | 1.0    | (0.1) |
| Counselling staff  | 57.8                            | (2.7) | 23.3   | (2.0) | 6.4  | (1.1) | 2.3   | (0.2) | 0.1    | (0.0) |
| Clerical and other staff   | 25.3                            | (2.6) | 41.4   | (2.3) | 24.1                                       | (1.5) | 7.2   | (0.3) | 5.1    | (0.2) |
| Professional development services<br>(excluding staff salaries)    | 45.0                            | (2.3) | 43.1   | (2.5) | 0.6  | (0.1) | 1.2   | (0.1) | 0.2    | (0.0) |
| Instructional materials/equipment                                  | 5.3                             | (0.9) | 67.9   | (1.8) | 18.7                                       | (1.4) | 7.2   | (0.3) | 5.2    | (0.1) |
| Office equipment / furniture / supplies                            | 34.3                            | (1.3) | 53.3   | (1.8) | 1.4  | (0.4) | 1.7   | (0.1) | 0.8    | (0.0) |
| Instructional technology<br>(hardware / software)                  | 36.0                            | (1.3) | 49.0   | (1.4) | 3.3  | (0.5) | 2.2   | (0.1) | 0.8    | (0.1) |
| Technology support services<br>(including staff, consultants, etc) | 62.6                            | (1.7) | 22.8   | (1.8) | 1.3  | (0.2) | 1.1   | (0.1) | 0.1    | (0.0) |
| Facilities / utilities / custodial services                        | 42.9                            | (1.4) | 40.2   | (1.6) | 5.1  | (0.8) | 2.7   | (0.1) | 0.3    | (0.2) |
| <b>Community-based organizations (CBO)</b>                         |                                 |       |  |       |  |       |       |       |        |       |
| Administrative staff   | 9.9                             | (2.0) | 28.1   | (3.0) | 55.8                                       | (3.2) | 21.7  | (2.3) | 14.9   | (0.8) |
| Instructional staff<br>(creation / delivery of instruction)        | 12.9                            | (3.5) | 4.2  | (1.1) | 75.0                                       | (4.2) | 42.7  | (2.5) | 47.0   | (3.3) |
| Instructional staff<br>(professional development)                  | 44.9                            | (3.4) | 44.6   | (4.0) | 1.8  | (0.6) | 2.0   | (0.2) | 0.2    | (0.0) |
| Counselling staff  | 59.0                            | (4.3) | 21.5   | (3.4) | 10.6                                       | (2.0) | 2.9   | (0.4) | 0.1    | (0.0) |
| Clerical and other staff   | 37.7                            | (4.0) | 39.3   | (5.0) | 15.5                                       | (2.7) | 6.0   | (0.7) | 2.2    | (1.6) |
| Professional development services<br>(excluding staff salaries)    | 37.3                            | (4.1) | 52.4   | (3.9) | 0.4  | (0.4) | 1.3   | (0.1) | 0.8    | (0.1) |
| Instructional materials / equipment                                | 11.0                            | (3.8) | 68.4   | (3.7) | 13.8                                       | (2.3) | 6.0   | (0.7) | 3.7    | (0.5) |
| Office equipment / furniture / supplies                            | 23.8                            | (3.4) | 64.9   | (3.2) | 4.4  | (1.1) | 2.6   | (0.3) | 1.8    | (0.1) |
| Instructional technology<br>(hardware/software)                    | 46.7                            | (3.2) | 42.3   | (3.7) | 1.4  | (0.3) | 1.3   | (0.1) | 0.2    | (0.0) |
| Technology support services<br>(including staff, consultants, etc) | 55.7                            | (5.3) | 33.8   | (5.0) | 1.1  | (0.5) | 1.3   | (0.3) | 0.2    | (0.0) |
| Facilities / utilities / custodial services                        | 26.2                            | (3.2) | 44.2   | (3.4) | 21.1                                       | (3.0) | 6.5   | (0.4) | 4.9    | (0.3) |
| <b>Community colleges (CC)</b>                                     |                                 |       |  |       |  |       |       |       |        |       |
| Administrative staff   | 10.8                            | (1.0) | 34.4   | (3.1) | 48.2                                       | (3.3) | 13.5  | (0.9) | 10.9   | (1.2) |
| Instructional staff<br>(creation / delivery of instruction)        | 0.4                             | (0.3) | 0.4  | (0.3) | 93.4                                       | (1.0) | 56.6  | (1.5) | 56.9   | (2.1) |
| Instructional staff<br>(professional development)                  | 27.2                            | (2.1) | 62.7   | (2.6) | 2.9  | (1.1) | 2.5   | (0.3) | 1.2    | (0.1) |
| Counselling staff  | 71.3                            | (2.7) | 14.8   | (1.9) | 6.3  | (1.1) | 1.8   | (0.3) | 0.1    | (0.0) |
| Clerical and other staff   | 32.2                            | (2.5) | 40.3   | (2.3) | 21.3                                       | (1.6) | 6.4   | (0.3) | 4.5    | (0.3) |
| Professional development services<br>(excluding staff salaries)    | 49.5                            | (3.6) | 43.5   | (3.3) | 0.0  | (0.0) | 1.1   | (0.1) | 0.2    | (0.0) |
| Instructional materials / equipment                                | 5.6                             | (1.4) | 74.2   | (3.4) | 14.5                                       | (3.1) | 6.6   | (0.6) | 5.0    | (0.2) |
| Office equipment / furniture / supplies                            | 36.9                            | (2.2) | 54.2   | (2.3) | 1.3  | (0.7) | 1.6   | (0.1) | 0.8    | (0.1) |
| Instructional technology<br>(hardware / software)                  | 39.7                            | (2.4) | 48.0   | (2.2) | 4.7  | (0.8) | 2.4   | (0.2) | 0.8    | (0.1) |
| Technology support services<br>(including staff, consultants, etc) | 73.4                            | (2.1) | 17.3   | (1.6) | 0.5  | (0.1) | 0.6   | (0.1) | 0.1    | (0.0) |
| Facilities / utilities / custodial services                        | 56.7                            | (2.9) | 32.5   | (2.6) | 3.1  | (0.8) | 2.5   | (0.6) | 0.1    | (0.0) |

TABLE 1.5 (CONCLUDED)

## Expenditure categories reported as percentage of the total budget, by type of provider

| Expenditure  | 0 percent of their total budget |        | Between 1 and 10 percent of their total budget |        | More than 50 percent of their total budget |       | Mean  |       | Median |        |
|--|---------------------------------|--------|--|--------|--|-------|-------|-------|--------|--------|
|  | %                               | S.E.   | %  | S.E.   | %  | S.E.  | Value | S.E.  | Value  | S.E.   |
| <b>Correctional institutions</b>                                   |                                 |        |  |        |  |       |       |       |        |        |
| Administrative staff   | 33.4                            | (5.3)  | 37.5   | (6.5)  | 19.8                                       | (6.2) | 6.3   | (0.8) | 4.9    | (1.3)  |
| Instructional staff<br>(creation / delivery of instruction)        | 5.3                             | (2.5)  | 0.0  | (0.0)  | 68.0                                       | (2.9) | 64.0  | (3.1) | 67.1   | (1.0)  |
| Instructional staff<br>(professional development)                  | 40.1                            | (6.8)  | 43.9   | (7.9)  | 5.3  | (2.6) | 4.0   | (1.6) | 0.9    | (0.2)  |
| Counselling staff  | 62.1                            | (6.8)  | 16.5   | (6.8)  | 10.7                                       | (2.6) | 3.1   | (0.7) | 0.1    | (0.0)  |
| Clerical and other staff   | 45.4                            | (6.3)  | 38.5   | (6.5)  | 6.7  | (3.4) | 3.0   | (0.6) | 0.2    | (1.1)  |
| Professional development services<br>(excluding staff salaries)    | 44.1                            | (6.2)  | 45.2   | (6.6)  | 0.0  | (0.0) | 1.2   | (0.2) | 0.8    | (1.7)  |
| Instructional materials / equipment                                | 16.0                            | (3.7)  | 61.3   | (7.1)  | 13.3                                       | (4.6) | 9.0   | (1.9) | 6.1    | (0.5)  |
| Office equipment / furniture / supplies                            | 49.4                            | (5.7)  | 35.9   | (6.7)  | 4.0  | (2.3) | 1.8   | (0.5) | 0.2    | (0.1)  |
| Instructional technology<br>(hardware / software)                  | 44.0                            | (5.9)  | 42.6   | (6.3)  | 2.7  | (1.9) | 2.0   | (0.4) | 0.5    | (1.1)  |
| Technology support services<br>(including staff, consultants, etc) | 58.8                            | (6.2)  | 29.2   | (6.9)  | 1.3  | (1.3) | 0.9   | (0.3) | 0.1    | (0.0)  |
| Facilities / utilities / custodial services                        | 70.4                            | (7.1)  | 12.7   | (5.7)  | 6.1  | (6.2) | 1.4   | (1.0) | 0.1    | (0.0)  |
| <b>Other</b>   |                                 |        |  |        |  |       |       |       |        |        |
| Administrative staff   | 16.1                            | (10.8) | 24.5   | (8.4)  | 29.4                                       | (8.6) | 10.6  | (1.4) | 10.0   | (0.5)  |
| Instructional staff<br>(creation / delivery of instruction)        | 0.0                             | (0.0)  | 0.0  | (0.0)  | 70.1                                       | (8.4) | 60.1  | (6.9) | 55.1   | (18.0) |
| Instructional staff<br>(professional development)                  | 46.4                            | (12.0) | 35.3   | (8.5)  | 1.2  | (1.3) | 1.4   | (0.5) | 0.2    | (0.6)  |
| Counselling staff  | 57.5                            | (9.7)  | 7.8  | (2.4)  | 12.3                                       | (4.0) | 3.5   | (1.0) | 0.1    | (0.0)  |
| Clerical and other staff   | 32.3                            | (13.1) | 24.9   | (5.1)  | 13.0                                       | (6.4) | 5.4   | (1.9) | 5.8    | (5.9)  |
| Professional development services<br>(excluding staff salaries)    | 36.6                            | (12.4) | 26.2   | (8.8)  | 0.0  | (0.0) | 1.1   | (0.4) | 0.2    | (0.8)  |
| Instructional materials / equipment                                | 8.7                             | (4.4)  | 54.9   | (12.3) | 1.2  | (1.2) | 4.5   | (0.5) | 4.9    | (1.0)  |
| Office equipment / furniture / supplies                            | 19.2                            | (6.1)  | 45.6   | (12.3) | 0.0  | (0.0) | 2.1   | (0.9) | 1.8    | (1.8)  |
| Instructional technology<br>(hardware / software)                  | 29.1                            | (6.4)  | 33.2   | (11.3) | 2.5  | (2.4) | 2.9   | (0.7) | 1.0    | (1.2)  |
| Technology support services<br>(including staff, consultants, etc) | 57.2                            | (6.2)  | 20.4   | (5.2)  | 0.0  | (0.0) | 1.2   | (0.3) | 0.1    | (0.0)  |
| Facilities / utilities / custodial services                        | 44.2                            | (11.5) | 21.4   | (5.1)  | 4.5  | (1.5) | 1.7   | (0.6) | 0.1    | (0.1)  |

TABLE 1.6

Level of involvement of public and community organizations with adult education programs

| Organizations                                     | Involvement of public and private community organizations with adult education programs in the past year (%) |       |                      |       |                                    |       |                  |       |                          |       |
|---|--|-------|----------------------|-------|------------------------------------|-------|------------------|-------|--------------------------|-------|
|   | Not involved with program  |       | Involved in planning |       | Involved in recruiting / referrals |       | Provided funding |       | Provided intake services |       |
|   | %  | S.E.  | %                    | S.E.  | %                                  | S.E.  | %                | S.E.  | %                        | S.E.  |
| Local schools (including public voc-tech schools) | 8.0  | (0.9) | 41.1                 | (1.6) | 72.1                               | (1.8) | 30.3             | (1.4) | 15.2                     | (1.0) |
| Community colleges                                | 27.6   | (1.3) | 27.0                 | (1.7) | 43.6                               | (1.3) | 13.9             | (1.3) | 10.7                     | (1.1) |
| State and local employment and training agencies  | 13.2   | (1.1) | 29.9                 | (1.4) | 71.1                               | (1.4) | 12.3             | (1.1) | 17.4                     | (1.2) |
| Literacy councils / organizations                 | 18.9   | (1.1) | 33.8                 | (1.2) | 50.6                               | (1.6) | 10.0             | (0.7) | 8.3                      | (0.6) |
| Religious groups                                  | 38.5   | (1.2) | 8.7                  | (0.7) | 35.5                               | (1.2) | 6.3              | (0.7) | 3.3                      | (0.7) |
| Businesses  | 20.3   | (1.2) | 24.9                 | (0.9) | 48.8                               | (1.5) | 21.9             | (1.0) | 3.6                      | (0.4) |
| Labor unions                                      | 71.1   | (0.9) | 4.0                  | (0.6) | 8.7                                | (0.8) | 1.2              | (0.3) | 0.5                      | (0.2) |
| Foundations                                       | 49.9   | (1.6) | 5.3                  | (0.5) | 4.7                                | (0.4) | 26.8             | (1.7) | 0.8                      | (0.3) |
| Workforce development investment boards           | 23.2   | (1.1) | 32.8                 | (1.4) | 43.8                               | (1.3) | 15.4             | (1.0) | 9.2                      | (0.8) |
| Public libraries                                  | 23.6   | (1.2) | 19.7                 | (0.9) | 44.1                               | (1.5) | 3.3              | (0.4) | 3.4                      | (0.7) |
| Media organizations                               | 36.9   | (1.4) | 4.7                  | (0.5) | 37.1                               | (1.3) | 2.4              | (0.3) | 0.5                      | (0.2) |
| AmeriCorps  | 69.1   | (1.1) | 2.6                  | (0.4) | 6.7                                | (0.9) | 1.0              | (0.2) | 1.8                      | (0.3) |
| Hospitals   | 56.0   | (1.1) | 7.2                  | (0.6) | 17.8                               | (1.3) | 2.6              | (0.4) | 0.5                      | (0.1) |

| Organizations                                     | Provided staff, facilities, and other resources |       | Provided support services |       | Provided transition services |       | Data sharing |       | Other |       |
|---|---|-------|---------------------------|-------|------------------------------|-------|--------------|-------|-------|-------|
|   | %   | S.E.  | %                         | S.E.  | %                            | S.E.  | %            | S.E.  | %     | S.E.  |
| Local schools (including public voc-tech schools) | 58.6  | (1.4) | 32.5                      | (1.5) | 20.8                         | (1.1) | 29.3         | (1.5) | 1.9   | (0.3) |
| Community colleges                                | 25.8  | (1.6) | 17.8                      | (1.5) | 29.3                         | (1.5) | 18.6         | (1.5) | 3.0   | (0.6) |
| State and local employment and training agencies  | 24.2  | (1.3) | 27.1                      | (1.2) | 25.3                         | (1.0) | 21.1         | (1.0) | 1.2   | (0.3) |
| Literacy councils / organizations                 | 19.6  | (1.0) | 20.4                      | (1.3) | 6.9                          | (0.7) | 16.1         | (1.5) | 2.8   | (0.4) |
| Religious groups                                  | 25.2  | (1.1) | 9.3                       | (0.8) | 2.7                          | (0.4) | 2.3          | (0.6) | 0.9   | (0.3) |
| Businesses  | 21.2  | (1.0) | 8.9                       | (0.9) | 5.6                          | (0.5) | 4.2          | (0.4) | 1.5   | (0.3) |
| Labor unions                                      | 2.8   | (0.3) | 1.0                       | (0.2) | 1.1                          | (0.3) | 1.3          | (0.2) | 0.2   | (0.1) |
| Foundations                                       | 3.0   | (0.3) | 3.0                       | (0.3) | 1.3                          | (0.3) | 1.7          | (0.3) | 0.5   | (0.2) |
| Workforce development investment boards           | 14.3  | (0.9) | 14.1                      | (0.7) | 14.7                         | (0.8) | 14.5         | (0.7) | 0.9   | (0.2) |
| Public libraries                                  | 34.2  | (1.5) | 11.7                      | (0.7) | 3.1                          | (0.4) | 5.0          | (0.4) | 1.8   | (0.3) |
| Media organizations                               | 7.1   | (0.6) | 4.7                       | (0.5) | 0.9                          | (0.2) | 1.5          | (0.2) | 4.8   | (0.4) |
| AmeriCorps  | 7.5   | (0.6) | 3.5                       | (0.6) | 1.2                          | (0.2) | 0.8          | (0.2) | 0.4   | (0.1) |
| Hospitals   | 9.3   | (0.6) | 4.7                       | (0.5) | 1.6                          | (0.2) | 1.2          | (0.3) | 0.5   | (0.1) |

TABLE 1.7

## Hours of classroom instruction between pre- and post-test

|                    | Number of hours of classroom instruction received by learners between pre- and post-testing |       |                           |        |                              |       |
|--------------------|---|-------|---------------------------|--------|------------------------------|-------|
|                    | Adult basic education   |       | Adult secondary education |        | English as a second language |       |
|                    | %   | S.E.  | %                         | S.E.   | %                            | S.E.  |
| Less than 30 hours | 12.9  | (1.2) | 18.9                      | (1.5)  | 11.9                         | (1.2) |
| 30 to 50 hours     | 42.7  | (1.6) | 40.0                      | (1.6)  | 39.8                         | (1.7) |
| 51 to 80 hours     | 25.8  | (1.1) | 23.5                      | (1.2)  | 26.8                         | (1.7) |
| 81 to 99 hours     | 7.1   | (0.8) | 5.6                       | (0.7)  | 10.5                         | (1.2) |
| 100 or more hours  | 11.6  | (1.0) | 0.1                       | (12.0) | 11.1                         | (1.1) |

TABLE 1.8

## A profile of adult learners' progress, by type of instruction

| Type of instruction          | Learners completing an educational level |               |              |              |                | Learners completing an educational level and advancing one or more levels |               |             |              |                |
|------------------------------|--|---------------|--------------|--------------|----------------|---|---------------|-------------|--------------|----------------|
|                              | Mean                                     | S.E.          | Median       | S.E.         | Total          | Mean  | S.E.          | Median      | S.E.         | Total          |
| Adult basic education        | 118.3                                    | (3.2)         | 46.0         | (2.9)        | <b>357,162</b> | 78.8  | (2.4)         | 24.9        | (3.1)        | <b>229,613</b> |
| Adult secondary education    | 68.2                                     | (4.0)         | 20.8         | (1.4)        | <b>205,866</b> | 36.7  | (3.4)         | 6.8         | (0.9)        | <b>105,986</b> |
| English as a second language | 121.4                                    | (17.1)        | 10.8         | (1.8)        | <b>366,330</b> | 84.5  | (13.5)        | 6.0         | (1.2)        | <b>244,911</b> |
| <b>Total<sup>a</sup></b>     | <b>308.0</b>                             | <b>(22.0)</b> | <b>113.0</b> | <b>(8.0)</b> | <b>933,340</b> | <b>199.0</b>  | <b>(17.0)</b> | <b>63.0</b> | <b>(3.0)</b> | <b>582,356</b> |

| Type of instruction          | Learners remaining within an educational level |               |             |              |                | Learners separated before completing an educational level |               |             |              |                |
|------------------------------|--|---------------|-------------|--------------|----------------|---|---------------|-------------|--------------|----------------|
|                              | Mean   | S.E.          | Median      | S.E.         | Total          | Mean  | S.E.          | Median      | S.E.         | Total          |
| Adult basic education        | 120.0  | (5.2)         | 33.0        | (3.4)        | <b>349,042</b> | 102.2   | (4.7)         | 33.8        | (2.9)        | <b>299,706</b> |
| Adult secondary education    | 48.7   | (2.9)         | 7.9         | (0.2)        | <b>141,999</b> | 41.6  | (3.6)         | 7.1         | (0.7)        | <b>121,904</b> |
| English as a second language | 132.8  | (20.4)        | 9.1         | (2.8)        | <b>384,326</b> | 104.8   | (15.1)        | 6.9         | (0.8)        | <b>306,390</b> |
| <b>Total<sup>a</sup></b>     | <b>302.0</b>                                   | <b>(25.0)</b> | <b>79.0</b> | <b>(6.0)</b> | <b>875,988</b> | <b>249.0</b>  | <b>(22.0)</b> | <b>68.0</b> | <b>(5.0)</b> | <b>728,343</b> |

<sup>a</sup> These totals do not necessarily correspond to the sum of the ABE, ASE and ESL categories because these were asked in different questions. Slight differences exist.

**TABLE 1.9**

**Instructional time, by type of instruction**

| Instructional time   | Adult basic education |       |        |       | Adult secondary education |       |        |       | English as a second language |       |        |       |
|--|-----------------------|-------|--------|-------|---------------------------|-------|--------|-------|------------------------------|-------|--------|-------|
|  | Mean                  |       | Median |       | Mean                      |       | Median |       | Mean                         |       | Median |       |
|  | Value                 | S.E.  | Value  | S.E.  | Value                     | S.E.  | Value  | S.E.  | Value                        | S.E.  | Value  | S.E.  |
| Number of weeks that classes were held during the last 52 weeks                      | 43.0                  | (0.4) | 46.2   | (1.5) | 37.4                      | (0.6) | 44.1   | (0.2) | 35.1                         | (0.7) | 41.8   | (2.1) |
| <b>Percentage of classes scheduled for the following hours during a typical week</b> |                       |       |        |       |                           |       |        |       |                              |       |        |       |
| 3 or fewer hours   | 15.0                  | (1.1) | 0.1    | (0.0) | 10.7                      | (1.1) | 0.1    | (0.0) | 14.3                         | (1.1) | 0.1    | (0.0) |
| 4 to 6 hours   | 31.4                  | (1.1) | 15.0   | (0.4) | 26.2                      | (1.3) | 5.1    | (1.0) | 33.5                         | (1.7) | 9.9    | (0.3) |
| 7 to 12 hours  | 17.6                  | (0.9) | 0.2    | (0.0) | 16.2                      | (0.8) | 0.2    | (0.0) | 16.2                         | (0.7) | 0.1    | (0.0) |
| 13 to 19 hours   | 10.3                  | (0.6) | 0.1    | (0.0) | 9.6                       | (0.6) | 0.1    | (0.0) | 6.0                          | (0.5) | 0.0    | (0.0) |
| 20 or more hours   | 22.3                  | (1.0) | 0.2    | (0.0) | 20.6                      | (0.9) | 0.1    | (0.0) | 9.0                          | (0.8) | 0.1    | (0.0) |

**TABLE 1.10**

**Type of enrollment, by type of provider**

| Providers                     | Open enrollment (%)         |              |  |              |             |              | Managed enrollment (%)      |              |  |              |             |              |
|-------------------------------|-----------------------------|--------------|--|--------------|-------------|--------------|-----------------------------|--------------|--|--------------|-------------|--------------|
|                               | This method was not offered |              | This method was offered for more than 80 percent of services |              | Mean        |              | This method was not offered |              | This method was offered for more than 80 percent of services |              | Mean        |              |
|                               | %                           | S.E.         | %  | S.E.         | Value       | S.E.         | %                           | S.E.         | %  | S.E.         | Value       | S.E.         |
| Local education agencies      | 8.7                         | (0.9)        | 73.1   | (1.3)        | 82.2        | (0.9)        | 59.4                        | (1.6)        | 11.0   | (1.0)        | 17.8        | (0.9)        |
| Community-based organizations | 16.9                        | (2.7)        | 70.5   | (2.8)        | 75.4        | (2.4)        | 62.9                        | (3.6)        | 18.6   | (3.4)        | 23.5        | (2.8)        |
| Community colleges            | 13.5                        | (2.2)        | 60.8   | (2.8)        | 71.8        | (2.2)        | 51.9                        | (3.1)        | 18.7   | (2.4)        | 28.3        | (2.2)        |
| Correctional institutions     | 10.7                        | (4.0)        | 77.3   | (5.0)        | 84.5        | (4.3)        | 75.9                        | (4.7)        | 12.0   | (4.3)        | 15.5        | (4.3)        |
| <b>Total</b>                  | <b>11.5</b>                 | <b>(0.8)</b> | <b>70.3</b>  | <b>(1.2)</b> | <b>78.8</b> | <b>(0.9)</b> | <b>59.4</b>                 | <b>(1.2)</b> | <b>14.1</b>  | <b>(1.0)</b> | <b>20.9</b> | <b>(0.9)</b> |

TABLE 1.11

## Distribution and number of staff members, by type of staff and role

|   | Percentiles |      |      |       |      |       |      |       |        |       |      |       |      |        |
|---|-------------|------|------|-------|------|-------|------|-------|--------|-------|------|-------|------|--------|
|   | Overall     |      |      |       | 10th |       | 25th |       | Median |       | 75th |       | 90th |        |
|   | Sum         | %    | Mean | S.E.  | S.E. | S.E.  | S.E. | S.E.  | Value  | S.E.  | S.E. | S.E.  |      |        |
| <b>Overall number of staff</b>                                      |             |      |      |       |      |       |      |       |        |       |      |       |      |        |
| Total number of full-time paid staff                                | 25,638      | 17.2 | 7.0  | (0.3) | 0.0  | (0.0) | 0.9  | (0.0) | 2.9    | (0.1) | 6.0  | (0.1) | 12.1 | (0.3)  |
| Total number of part-time paid staff                                | 58,676      | 39.4 | 19.0 | (1.6) | 1.1  | (0.1) | 3.2  | (0.1) | 7.8    | (0.2) | 18.2 | (2.0) | 37.0 | (0.9)  |
| Total number of volunteer staff                                     | 64,484      | 43.3 | 21.3 | (1.6) | 0.0  | (0.0) | 0.1  | (0.0) | 1.8    | (0.1) | 11.9 | (2.7) | 50.2 | (10.2) |
| <b>Staff by role</b>  |             |      |      |       |      |       |      |       |        |       |      |       |      |        |
| <b>Full-time paid staff<sup>a</sup></b>                             |             |      |      |       |      |       |      |       |        |       |      |       |      |        |
| Staff who were primarily full-time paid administrators              | 3,859       | 17.4 | 1.6  | (0.1) | 0.0  | (0.0) | 0.8  | (0.0) | 1.0    | (0.0) | 1.8  | (0.0) | 2.9  | (0.1)  |
| Staff who were primarily full-time paid clerical                    | 2,977       | 13.4 | 1.4  | (0.1) | 0.0  | (0.0) | 0.0  | (0.0) | 0.9    | (0.0) | 1.2  | (0.0) | 2.9  | (0.1)  |
| Staff who were primarily full-time paid counselors                  | 907         | 4.1  | 0.5  | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.2  | (0.0) | 1.2  | (0.0)  |
| Staff who were primarily full-time paid instructional aides         | 1,438       | 6.5  | 0.9  | (0.2) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.2  | (0.0) | 1.9  | (0.1)  |
| Staff who were primarily full-time paid instructional support staff | 1,413       | 6.4  | 0.9  | (0.2) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.8  | (0.0) | 2.0  | (0.1)  |
| Staff who were primarily full-time paid instructors                 | 11,543      | 52.1 | 5.2  | (0.4) | 0.0  | (0.0) | 0.2  | (0.7) | 1.9    | (0.1) | 4.2  | (0.1) | 9.1  | (0.3)  |
| <b>Part-time paid staff<sup>a</sup></b>                             |             |      |      |       |      |       |      |       |        |       |      |       |      |        |
| Staff who were primarily part-time paid administrators              | 2,367       | 3.9  | 1.1  | (0.1) | 0.0  | (0.0) | 0.1  | (0.0) | 0.9    | (0.0) | 1.2  | (0.0) | 2.1  | (0.1)  |
| Staff who were primarily part-time paid clerical                    | 2,571       | 4.3  | 1.2  | (0.1) | 0.0  | (0.0) | 0.1  | (0.0) | 0.9    | (0.0) | 1.2  | (0.0) | 2.8  | (0.1)  |
| Staff who were primarily part-time paid counselors                  | 1,556       | 2.6  | 0.7  | (0.1) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.9  | (0.0) | 1.9  | (0.1)  |
| Staff who were primarily part-time paid instructional aides         | 5,180       | 8.6  | 2.4  | (0.2) | 0.0  | (0.0) | 0.0  | (0.0) | 0.2    | (0.0) | 2.2  | (0.1) | 6.0  | (0.2)  |
| Staff who were primarily part-time paid instructional support staff | 3,111       | 5.2  | 1.6  | (0.4) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 1.0  | (0.0) | 2.8  | (0.1)  |
| Staff who were primarily part-time paid instructors                 | 45,351      | 75.4 | 16.1 | (0.0) | 0.0  | (0.1) | 2.9  | (0.1) | 6.8    | (0.2) | 16.1 | (0.3) | 31.1 | (1.2)  |
| <b>Volunteer staff<sup>a</sup></b>                                  |             |      |      |       |      |       |      |       |        |       |      |       |      |        |
| Staff who were primarily volunteer administrators                   | 1,676       | 2.6  | 1.1  | (0.2) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0    | (0.0) | 0.2  | (0.0) | 1.0  | (0.2)  |
| Staff who were primarily volunteer clerical                         | 1,202       | 1.8  | 0.8  | (0.1) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.2  | (0.0) | 1.2  | (0.8)  |
| Staff who were primarily volunteer counselors                       | 176         | 0.3  | 0.1  | (0.0) | 0.0  | (0.0) | 0.0  | (0.0) | 0.0    | (0.0) | 0.1  | (0.0) | 0.2  | (0.0)  |
| Staff who were primarily volunteer instructional aides              | 17,695      | 27.2 | 9.6  | (0.8) | 0.0  | (0.0) | 0.0  | (0.0) | 0.2    | (0.0) | 4.0  | (0.4) | 20.0 | (0.3)  |
| Staff who were primarily volunteer instructional support staff      | 5,095       | 7.8  | 3.1  | (0.6) | 0.0  | (0.0) | 0.0  | (0.0) | 0.1    | (0.0) | 0.2  | (0.0) | 3.2  | (0.2)  |
| Staff who were primarily volunteer instructors                      | 39,129      | 60.2 | 21.7 | (3.4) | 0.0  | (0.0) | 0.0  | (0.0) | 0.2    | (0.0) | 4.8  | (1.3) | 58.9 | (30.7) |

<sup>a</sup> Note that the sum of the staff members shown under “staff by role” does not add up to the “overall number of staff” because administrators were asked to report these numbers separately in two different questions.

TABLE 1.12

Experience of instructors in current program

| Years spent teaching in current program | Percentage of programs reporting no instructors in this category |       | Percentage of programs with instructors in this category |       | Mean number of instructors |       |
|---|--|-------|--|-------|----------------------------|-------|
|   | %  | S.E.  | %  | S.E.  | Value                      | S.E.  |
| <b>Full-time paid instructors</b>       |  |       |  |       |                            |       |
| 1 or less                               | 72.1   | (1.3) | 15.3   | (1.0) | 2.0                        | (0.2) |
| More than 1 but less than 4             | 59.5   | (1.8) | 30.4   | (1.4) | 2.8                        | (0.2) |
| 4 or more but less than 10              | 58.5   | (1.6) | 30.5   | (1.3) | 4.0                        | (0.4) |
| 10 or more                              | 57.3   | (1.5) | 33.3   | (1.2) | 4.2                        | (0.2) |
| <b>Part-time paid instructors</b>       |  |       |  |       |                            |       |
| 1 or less                               | 39.8   | (1.6) | 55.0   | (1.6) | 4.7                        | (0.2) |
| More than 1 but less than 4             | 28.3   | (1.6) | 67.1   | (1.6) | 7.4                        | (0.4) |
| 4 or more but less than 10              | 36.8   | (1.6) | 57.9   | (1.7) | 7.0                        | (0.4) |
| 10 or more                              | 45.2   | (1.6) | 47.1   | (1.8) | 5.9                        | (0.5) |
| <b>Volunteer instructors</b>            |  |       |  |       |                            |       |
| 1 or less                               | 61.1   | (1.4) | 31.1   | (1.2) | 19.7                       | (2.5) |
| More than 1 but less than 4             | 63.0   | (1.4) | 27.7   | (1.3) | 22.7                       | (3.3) |
| 4 or more but less than 10              | 67.9   | (1.3) | 19.7   | (1.2) | 12.3                       | (1.9) |
| 10 or more                              | 72.8   | (1.3) | 12.4   | (0.9) | 6.6                        | (1.0) |

TABLE 1.13

Minimum educational requirements for instructors, by type of instruction

|   | Percentage of programs    |       |                           |       |                      |       |
|---|---------------------------|-------|---------------------------|-------|----------------------|-------|
|   | Full-time paid instructor |       | Part-time paid instructor |       | Volunteer instructor |       |
|   | %                         | S.E.  | %                         | S.E.  | %                    | S.E.  |
| Percentage of programs with minimum educational requirements for: | 76.2                      | (1.7) | 89.3                      | (1.3) | 39.7                 | (1.5) |
| <b>Adult basic education</b>                                      |                           |       |                           |       |                      |       |
| High school diploma   | 9.3                       | (0.6) | 13.0                      | (0.8) | 30.3                 | (1.4) |
| Some college (including AA)                                       | 5.7                       | (0.8) | 8.6                       | (0.9) | 7.2                  | (0.6) |
| BA / BS   | 53.5                      | (1.8) | 65.9                      | (2.2) | 8.1                  | (0.9) |
| MA or higher  | 8.0                       | (0.9) | 4.1                       | (0.6) | 0.8                  | (0.2) |
| K-12 certification  | 18.9                      | (0.9) | 24.0                      | (1.3) | 1.6                  | (0.3) |
| Adult education certification                                     | 13.2                      | (0.8) | 14.9                      | (1.0) | 1.8                  | (0.5) |
| Special education certification                                   | 1.4                       | (0.3) | 2.3                       | (0.3) | 0.3                  | (0.2) |
| <b>Adult secondary education</b>                                  |                           |       |                           |       |                      |       |
| High school diploma   | 5.5                       | (0.4) | 8.1                       | (0.7) | 21.0                 | (1.1) |
| Some college (including AA)                                       | 3.6                       | (0.5) | 6.1                       | (0.8) | 5.2                  | (0.5) |
| BA / BS   | 46.1                      | (1.6) | 59.2                      | (1.9) | 7.7                  | (0.7) |
| MA or higher  | 5.8                       | (0.6) | 4.1                       | (0.4) | 0.9                  | (0.2) |
| K-12 certification  | 18.1                      | (0.9) | 23.0                      | (1.4) | 1.8                  | (0.3) |
| Adult education certification                                     | 10.3                      | (0.7) | 12.6                      | (1.2) | 1.7                  | (0.6) |
| Special education certification                                   | 1.0                       | (0.3) | 1.5                       | (0.2) | 0.1                  | (0.0) |
| <b>English as a second language</b>                               |                           |       |                           |       |                      |       |
| High school diploma   | 4.3                       | (0.4) | 8.6                       | (0.7) | 21.6                 | (1.5) |
| Some college (including AA)                                       | 3.3                       | (0.4) | 7.5                       | (0.9) | 3.9                  | (0.5) |
| BA / BS   | 36.2                      | (1.1) | 53.5                      | (1.6) | 5.2                  | (0.5) |
| MA or higher  | 4.4                       | (0.5) | 4.5                       | (0.4) | 0.7                  | (0.2) |
| K-12 certification  | 12.2                      | (0.8) | 17.3                      | (1.1) | 0.8                  | (0.2) |
| Adult education certification                                     | 8.9                       | (0.6) | 11.8                      | (0.9) | 1.5                  | (0.5) |
| Special education certification                                   | 1.0                       | (0.4) | 1.0                       | (0.3) | 0.2                  | (0.1) |

TABLE 1.14

## Instructors' certification credentials, by type of instruction

|                                     | No certification obtained |       | Obtained certification |       | Not Applicable |       | Missing |       |
|-------------------------------------|---------------------------|-------|------------------------|-------|----------------|-------|---------|-------|
|                                     | %                         | S.E.  | %                      | S.E.  | %              | S.E.  | %       | S.E.  |
| <b>Full-time paid instructor</b>    |                           |       |                        |       |                |       |         |       |
| <b>Adult basic education</b>        |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 20.1                      | (1.6) | 27.9                   | (1.1) | 26.0           | (1.3) | 26.0    | (1.5) |
| Adult education certification       | 29.0                      | (1.7) | 13.2                   | (0.8) | 31.8           | (1.3) | 26.0    | (1.5) |
| Special education certification     | 31.4                      | (1.8) | 4.8                    | (0.4) | 37.8           | (1.4) | 26.0    | (1.5) |
| <b>Adult secondary education</b>    |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 17.6                      | (1.4) | 23.2                   | (1.0) | 31.2           | (1.4) | 28.0    | (1.9) |
| Adult education certification       | 25.8                      | (1.5) | 9.5                    | (0.7) | 36.8           | (1.3) | 28.0    | (1.9) |
| Special education certification     | 28.2                      | (1.6) | 2.9                    | (0.4) | 40.9           | (1.4) | 28.0    | (1.9) |
| <b>English as a second language</b> |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 21.3                      | (1.4) | 12.7                   | (0.9) | 32.5           | (1.3) | 33.6    | (1.5) |
| Adult education certification       | 23.9                      | (1.2) | 6.4                    | (0.5) | 37.9           | (1.5) | 31.9    | (1.5) |
| Special education certification     | 25.6                      | (1.3) | 1.2                    | (0.2) | 39.6           | (1.5) | 33.6    | (1.5) |
| TESOL certification                 | 24.6                      | (1.2) | 5.4                    | (0.6) | 36.4           | (1.4) | 33.6    | (1.5) |
| <b>Part-time paid instructor</b>    |                           |       |                        |       |                |       |         |       |
| <b>Adult basic education</b>        |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 21.6                      | (1.4) | 48.9                   | (1.5) | 13.0           | (1.0) | 16.4    | (1.1) |
| Adult education certification       | 41.1                      | (1.6) | 17.9                   | (1.2) | 24.8           | (1.3) | 16.2    | (1.1) |
| Special education certification     | 40.8                      | (1.5) | 12.1                   | (0.6) | 30.8           | (1.2) | 16.2    | (1.1) |
| <b>Adult secondary education</b>    |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 19.4                      | (1.4) | 41.5                   | (1.6) | 20.3           | (1.3) | 18.7    | (1.5) |
| Adult education certification       | 35.3                      | (1.5) | 14.7                   | (1.1) | 31.2           | (1.3) | 18.7    | (1.5) |
| Special education certification     | 36.5                      | (1.7) | 8.2                    | (0.6) | 36.6           | (1.4) | 18.7    | (1.5) |
| <b>English as a second language</b> |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 21.1                      | (1.3) | 36.2                   | (1.6) | 21.8           | (1.7) | 20.8    | (1.2) |
| Adult education certification       | 33.0                      | (1.3) | 12.3                   | (1.0) | 36.4           | (1.5) | 17.3    | (1.3) |
| Special education certification     | 35.2                      | (1.2) | 4.7                    | (0.5) | 39.3           | (1.5) | 20.8    | (1.2) |
| TESOL certification                 | 32.6                      | (1.2) | 12.2                   | (0.8) | 34.4           | (1.5) | 20.9    | (1.2) |
| <b>Volunteer instructor</b>         |                           |       |                        |       |                |       |         |       |
| <b>Adult basic education</b>        |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 14.5                      | (1.0) | 7.9                    | (0.7) | 38.8           | (1.1) | 38.8    | (1.2) |
| Adult education certification       | 17.7                      | (1.0) | 1.9                    | (0.4) | 41.7           | (1.1) | 38.7    | (1.2) |
| Special education certification     | 17.9                      | (1.0) | 1.6                    | (0.3) | 41.9           | (1.1) | 38.7    | (1.2) |
| <b>Adult secondary education</b>    |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 12.3                      | (0.9) | 4.4                    | (0.5) | 45.5           | (1.3) | 37.8    | (1.7) |
| Adult education certification       | 13.9                      | (0.9) | 0.9                    | (0.3) | 47.5           | (1.4) | 37.7    | (1.7) |
| Special education certification     | 13.9                      | (0.9) | 0.4                    | (0.1) | 48.0           | (1.5) | 37.7    | (1.7) |
| <b>English as a second language</b> |                           |       |                        |       |                |       |         |       |
| K-12 certification                  | 12.9                      | (0.8) | 4.2                    | (0.5) | 45.3           | (1.6) | 37.6    | (1.6) |
| Adult education certification       | 14.4                      | (0.9) | 1.1                    | (0.4) | 47.3           | (2.0) | 37.2    | (1.5) |
| Special education certification     | 14.6                      | (1.0) | 0.4                    | (0.1) | 47.4           | (2.0) | 37.6    | (1.6) |
| TESOL certification                 | 14.5                      | (0.9) | 1.9                    | (0.5) | 46.0           | (1.7) | 37.5    | (1.6) |

TABLE 1.15

Distribution and number of staff members, by type of staff and type of provider

| Type of staff and type of provider | Overall     |              |               |      | Percentiles |       |      |       |      |       |      |        |       |        |
|------------------------------------|-------------|--------------|---------------|------|-------------|-------|------|-------|------|-------|------|--------|-------|--------|
|                                    |             |              |               |      | 10th        |       | 25th |       | 50th |       | 75th |        | 90th  |        |
|                                    | Mean        | S.E.         | Sum           | %    | S.E.        | S.E.  | S.E. | S.E.  | S.E. | S.E.  | S.E. | S.E.   | S.E.  |        |
| <b>Full-time paid staff</b>        |             |              |               |      |             |       |      |       |      |       |      |        |       |        |
| Local education agencies           | 6.6         | (0.7)        | 14,912        | 58.2 | 0.0         | (0.0) | 0.9  | (0.0) | 2.2  | (0.6) | 5.8  | (2.3)  | 11.9  | (0.4)  |
| Community-based organizations      | 4.4         | (0.4)        | 3,278         | 12.8 | 0.0         | (0.0) | 0.8  | (0.1) | 2.1  | (0.1) | 5.2  | (0.6)  | 8.2   | (1.9)  |
| Community colleges                 | 8.0         | (1.4)        | 4,175         | 16.3 | 0.8         | (1.0) | 1.9  | (0.1) | 4.1  | (0.1) | 7.8  | (0.2)  | 13.8  | (2.1)  |
| Correctional institutions          | 32.5        | (8.2)        | 2,438         | 9.5  | 0.1         | (0.7) | 1.8  | (2.0) | 4.8  | (1.5) | 20.0 | (24.5) | 101.0 | (57.8) |
| Other                              | 10.3        | (1.7)        | 835           | 3.3  | 1.0         | (0.7) | 2.2  | (0.6) | 4.0  | (0.3) | 6.0  | (2.3)  | 24.2  | (1.2)  |
| <b>Total</b>                       | <b>8.3</b>  | <b>(1.3)</b> | <b>25,638</b> |      |             |       |      |       |      |       |      |        |       |        |
| <b>Part-time paid staff</b>        |             |              |               |      |             |       |      |       |      |       |      |        |       |        |
| Local education agencies           | 21.9        | (3.0)        | 36,404        | 62.0 | 1.9         | (0.3) | 4.2  | (0.9) | 9.1  | (1.4) | 20.1 | (1.8)  | 38.8  | (2.4)  |
| Community-based organizations      | 6.5         | (0.6)        | 4,865         | 8.3  | 0.8         | (0.6) | 1.9  | (0.2) | 4.0  | (0.3) | 7.2  | (1.4)  | 15.0  | (2.3)  |
| Community colleges                 | 29.6        | (3.3)        | 15,371        | 26.2 | 3.1         | (0.2) | 6.8  | (1.7) | 15.1 | (1.8) | 32.8 | (3.0)  | 62.1  | (4.3)  |
| Correctional institutions          | 8.0         | (1.8)        | 596           | 1.0  | 0.0         | (0.0) | 0.2  | (2.1) | 2.8  | (1.0) | 6.2  | (6.4)  | 24.1  | (8.2)  |
| Other                              | 17.7        | (4.6)        | 1,439         | 2.5  | 0.9         | (0.1) | 1.2  | (2.4) | 4.9  | (0.3) | 20.0 | (5.1)  | 63.1  | (44.3) |
| <b>Total</b>                       | <b>19.0</b> | <b>(1.6)</b> | <b>58,676</b> |      |             |       |      |       |      |       |      |        |       |        |
| <b>Volunteer staff</b>             |             |              |               |      |             |       |      |       |      |       |      |        |       |        |
| Local education agencies           | 8.8         | (1.0)        | 14,562        | 22.6 | 0.0         | (0.0) | 0.0  | (0.0) | 0.8  | (0.1) | 5.1  | (1.4)  | 22.8  | (4.5)  |
| Community-based organizations      | 55.8        | (9.2)        | 39,928        | 61.9 | 0.1         | (0.1) | 1.8  | (0.6) | 8.1  | (4.9) | 59.1 | (40.0) | 195.8 | (37.4) |
| Community colleges                 | 14.3        | (1.8)        | 7,304         | 11.3 | 0.0         | (0.0) | 0.0  | (0.0) | 1.2  | (1.6) | 10.1 | (1.7)  | 44.9  | (4.2)  |
| Correctional institutions          | 15.7        | (13.1)       | 1,096         | 1.7  | 0.0         | (0.0) | 0.0  | (0.0) | 0.1  | (0.0) | 1.9  | (0.8)  | 10.1  | (12.6) |
| Other                              | 19.6        | (5.4)        | 1,594         | 2.5  | 0.1         | (0.7) | 1.0  | (0.9) | 10.1 | (3.3) | 25.8 | (9.6)  | 56.9  | (30.7) |
| <b>Total</b>                       | <b>21.3</b> | <b>(1.6)</b> | <b>64,484</b> |      |             |       |      |       |      |       |      |        |       |        |

TABLE 1.16

## Characteristics of adult education programs across and within OVAE geographical regions

| Categories   | OVAE Regions |        |          |       |            |        |         |       |
|--|--------------|--------|----------|-------|------------|--------|---------|-------|
|  | Eastern      |        | Southern |       | Midwestern |        | Western |       |
|  | %            | S.E    | %        | S.E   | %          | S.E    | %       | S.E   |
| <b>Data across regions</b>                                     |              |        |          |       |            |        |         |       |
| <b>Distribution of programs</b>                                |              |        |          |       |            |        |         |       |
| Overall  | 25.8         | (4.0)  | 34.6     | (3.7) | 26.0       | (4.2)  | 13.6    | (2.8) |
| <b>By providers</b>  |              |        |          |       |            |        |         |       |
| Local education agencies                                       | 19.6         | (4.2)  | 40.2     | (5.3) | 31.1       | (5.7)  | 9.1     | (2.3) |
| Community based organizations                                  | 48.4         | (10.0) | 20.3     | (5.5) | 17.5       | (6.7)  | 13.9    | (6.4) |
| Community colleges   | 10.9         | (3.3)  | 38.2     | (5.7) | 23.1       | (5.8)  | 27.8    | (6.4) |
| Correctional institutions                                      | 33.8         | (9.5)  | 31.2     | (9.1) | 22.2       | (5.8)  | 12.8    | (3.4) |
| <b>Distribution of sites</b>                                   |              |        |          |       |            |        |         |       |
| Overall  | 22.7         | (3.6)  | 36.6     | (4.0) | 21         | (3.0)  | 19.6    | (4.7) |
| <b>Distribution of participants</b>                            |              |        |          |       |            |        |         |       |
| Overall  | 13.6         | (1.8)  | 39.4     | (3.8) | 19.1       | (2.8)  | 27.9    | (4.2) |
| <b>Distribution of overall budget</b>                          |              |        |          |       |            |        |         |       |
| Overall  | 21.4         | (3.0)  | 27.8     | (3.6) | 24.2       | (3.5)  | 26.6    | (6.2) |
| Mean percentage of funding from:                               |              |        |          |       |            |        |         |       |
| Federal government   | 52.5         | (1.6)  | 50.2     | (1.2) | 42.4       | (1.9)  | 42.2    | (3.6) |
| State government   | 50.6         | (2.3)  | 52.9     | (1.9) | 59.1       | (2.4)  | 56.6    | (3.4) |
| Local government   | 32.3         | (2.9)  | 14.2     | (1.2) | 24.3       | (1.4)  | 24.5    | (2.9) |
| <b>Distribution of staff members</b>                           |              |        |          |       |            |        |         |       |
| Full-time paid staff   | 20.0         | (4.6)  | 27.7     | (5.5) | 33.5       | (12.5) | 18.8    | (3.6) |
| Part-time paid staff   | 19.9         | (3.0)  | 34.9     | (4.9) | 22.6       | (3.3)  | 22.7    | (3.7) |
| Volunteer staff  | 30.2         | (5.3)  | 23.3     | (4.1) | 30.7       | (5.8)  | 15.8    | (2.8) |
| <b>Data within regions</b>                                     |              |        |          |       |            |        |         |       |
| <b>Distribution of participants by types of instruction</b>    |              |        |          |       |            |        |         |       |
| Adult basic education  | 50.3         | (14.8) | 49.3     | (5.8) | 52.2       | (12.1) | 22.7    | (9.2) |
| Adult secondary education                                      | 22.0         | (12.2) | 24.2     | (4.8) | 20.0       | (8.7)  | 15.7    | (5.3) |
| English as a second language                                   | 27.6         | (8.4)  | 26.4     | (3.7) | 27.8       | (9.2)  | 61.6    | (8.5) |
| <b>Percentage of classes offered in English</b>                |              |        |          |       |            |        |         |       |
| Adult basic education  | 90.2         | (2.3)  | 97.2     | (0.6) | 90.1       | (1.7)  | 89.3    | (3.1) |
| Adult secondary education                                      | 68.5         | (3.6)  | 71.1     | (1.6) | 67.8       | (3.8)  | 75.3    | (3.1) |
| <b>Percentage of classes offered in Spanish</b>                |              |        |          |       |            |        |         |       |
| Adult basic education  | 9.3          | (2.3)  | 14.5     | (0.9) | 12.0       | (1.5)  | 23.4    | (3.5) |
| Adult secondary education                                      | 7.3          | (1.7)  | 10.1     | (1.1) | 6.3        | (1.2)  | 14.6    | (2.3) |
| <b>Percentage of programs that use standardized assessment</b> |              |        |          |       |            |        |         |       |
| <b>Purpose for using standardized assessment</b>               |              |        |          |       |            |        |         |       |
| For adapting instruction                                       | 46.6         | (5.0)  | 55.6     | (2.6) | 64.1       | (2.5)  | 51.6    | (2.9) |
| For monitoring learner improvement                             | 70.5         | (3.3)  | 70.4     | (1.8) | 73.4       | (2.0)  | 69.6    | (3.0) |
| For placement  | 73.5         | (2.4)  | 74.0     | (1.7) | 70.0       | (3.7)  | 72.4    | (3.7) |
| For screening  | 34.1         | (3.0)  | 33.3     | (2.4) | 33.1       | (2.1)  | 28.5    | (2.5) |

TABLE 1.17

## A profile of adult education providers

|  | Local education agencies                            | Community-based organizations   | Community colleges  | Correctional institutions         |
|--|---|---|---|-----------------------------------|
|  | %   | %   | %   | %                                 |
| <b>General characteristics</b>   |   |   |   |                                   |
| Programs offered   | 53.8  | 24.2  | 16.9  | 2.4                               |
| Sites  | 54.2  | 23.8  | 16.9  | 2.4                               |
| Participants   | 60.0  | 8.1   | 27.2  | 3.3                               |
| Budget   | 57.9  | 11.6  | 19.6  | 8.8                               |
| Percentage of ABE learners   | 35.6  | 34.6  | 41.6  | 51.7                              |
| Percentage of ASE learners   | 20.3  | 11.0  | 16.6  | 17.8                              |
| Percentage of ESL learners   | 44.1  | 54.5  | 41.8  | 30.5                              |
| <b>Services provided</b>   |   |   |   |                                   |
| <b>Kind of site where some programs are offered (&gt;0%)</b>                                 | Public school (76%) and adult learning center (47%) | Adult learning center (51%) and community center (39%)                | Community college (86%) public school (57%) and adult correctional facility (50%)     | Correctional institution (97%)    |
| <b>Kind of site where some learners are served (&gt;0%)</b>                                  | Public school (75%) and adult learning center (48%) | Adult learning center (48%), community center (37%) and library (35%) | Community college (84%), community center (48%) and adult correctional facility (48%) | Adult correctional facility (96%) |
| <b>Instructional and support services</b>  |   |   |   |                                   |
| <b>Progression rates of learners</b>   |   |   |   |                                   |
| Learners who completed an educational level  | 33.6  | 27.8  | 37.0  | 34.7                              |
| Learners who completed an educational level and advanced one or more levels                  | 21.6  | 16.0  | 21.7  | 29.1                              |
| Learners who separated before the completion of the educational level                        | 28.1  | 31.7  | 23.2  | 16.6                              |
| Learners who remained within an educational level  | 29.5  | 40.1  | 34.4  | 40.8                              |
| <b>Schedule</b>  |   |   |   |                                   |
| Mean percentage of classes offered during the work day                                       | 54.3  | 59.2  | 57.1  | 74.8                              |
| Mean percentage of classes offered in the evenings   | 45.1  | 37.6  | 41.2  | 23.9                              |
| Mean percentage of classes offered on weekends   | 1.0   | 3.5   | 2.3   | 0.6                               |
| <b>Type of enrollment</b>  |   |   |   |                                   |
| Mean percentage of instructional services that are open enrollments (open entry / open exit) | 82.2  | 75.4  | 71.8  | 84.5                              |
| Mean percentage of instructional services that are managed enrollments                       | 17.8  | 23.5  | 28.3  | 15.5                              |

TABLE 1.17 (CONTINUED)

## A profile of adult education providers

|   | Local education agencies  | Community-based organizations   | Community colleges  | Correctional institutions   |
|---|---|---|---|---|
|   | %   | %   | %   | %   |
| <b>Services to special populations</b>  |   |   |   |   |
| <b>Learning disabilities</b>  | 81% inclusion and 8% special classes - 9% did not serve this population   | 74% inclusion and 10% special classes - 10% did not serve this population | 87% inclusion and 9% special classes - 3% did not serve this population   | 72% inclusion and 15% special classes - 5% did not serve this population  |
| <b>Mental disabilities or traumatic brain injuries (TBI)</b>                              | 36% inclusion and 16% special classes - 42% did not serve this population | 35% inclusion and 11% special classes - 42% did not serve this population | 46% inclusion and 22% special classes - 28% did not serve this population | 45% inclusion and 12% special classes - 31% did not serve this population |
| <b>Sensory disabilities such as hearing or vision</b>                                     | 54% inclusion and 6% special classes - 34% did not serve this population  | 46% inclusion and 6% special classes - 40% did not serve this population  | 74% inclusion and 8% special classes - 14% did not serve this population  | 53% inclusion and 5% special classes - 30% did not serve this population  |
| <b>Staff</b>  |   |   |   |   |
| Distribution of staff by provider   | 42.0  | 35.8  | 19.3  | 2.9   |
| <b>Full-time paid staff</b>   |   |   |   |   |
| Percentage of paid-staff  | 22.6  | 6.8   | 15.6  | 59.0  |
| Percentage of programs that had minimum educational requirements for full-time paid staff | 75.7  | 69.2  | 85.5  | 87.2  |
| Percentage of full-time staff who were administrators and clerical paid staff             | 31.1  | 37.6  | 33.0  | 17.0  |
| Percentage of full-time paid staff who were primarily instructors                         | 50.7  | 47.0  | 45.4  | 77.3  |
| Percentage of full-time paid staff who were instructional aides or support staff          | 14.3  | 9.2   | 18.6  | 3.7   |
| <b>Part-time paid staff</b>   |   |   |   |   |
| Percentage of part-time paid staff  | 55.3  | 10.1  | 57.3  | 14.4  |
| Percentage of programs that had minimum educational requirements for part-time paid staff | 93.6  | 77.4  | 95.1  | 83.0  |
| Percentage of part-time paid staff who were administrators and clerical staff             | 7.6   | 20.9  | 4.8   | 7.1   |
| Percentage of part-time paid staff who were primarily instructors                         | 75.3  | 62.2  | 81.0  | 70.7  |
| Percentage of part-time paid staff who were instructional aides or support staff          | 14.3  | 11.9  | 13.1  | 15.3  |
| <b>Volunteer staff</b>  |   |   |   |   |
| Percentage of volunteer staff   | 22.1  | 83.1  | 27.2  | 26.5  |
| Percentage of programs that had minimum educational requirements for volunteer staff      | 32.8  | 51.3  | 41.9  | 30.5  |
| Percentage of volunteer staff who were administrators and clerical staff                  | 3.7   | 5.4   | 1.3   | 0.3   |
| Percentage of volunteer staff who were primarily instructors                              | 26.8  | 76.1  | 36.5  | 3.8   |
| Percentage of volunteer staff who were instructional aides or support staff               | 68.7  | 18.4  | 61.9  | 95.0  |

TABLE 1.17 (CONTINUED)

A profile of adult education providers

|  | Local education agencies | Community-based organizations | Community colleges | Correctional institutions |
|--|--------------------------|-------------------------------|--------------------|---------------------------|
|  | %                        | %                             | %                  | %                         |
| <b>Assessment</b>  |                          |                               |                    |                           |
| <b>Use of standardized assessment</b>  |                          |                               |                    |                           |
| Programs use standardized assessments  | 84.0                     | 80.0                          | 91.0               | 92.0                      |
| Programs require standardized testing for ESL students                           | 63.5                     | 53.4                          | 74.5               | 33.4                      |
| Programs require learners to receive feedback from tests and assessments         | 71.6                     | 88.5                          | 76.5               | 77.2                      |
| <b>Purpose for using standardized assessment</b>                                 |                          |                               |                    |                           |
| For adapting instruction   | 71.4                     | 52.7                          | 61.0               | 51.6                      |
| For monitoring learner improvement   | 86.5                     | 81.5                          | 81.7               | 71.2                      |
| For placement  | 86.5                     | 83.6                          | 85.3               | 89.4                      |
| For screening  | 43.2                     | 32.0                          | 30.1               | 49.8                      |
| <b>Feedback from assessments</b>   |                          |                               |                    |                           |
| Programs that require learners to receive feedback from tests and assessments    | 86.3                     | 71.4                          | 88.5               | 76.5                      |
| Feedback provided through written reports  | 22.6                     | 21.4                          | 21.2               | 27.9                      |
| Feedback provided through interview with teacher or counselor                    | 84.9                     | 82.4                          | 82.1               | 84.3                      |
| Feedback provided through the test scores  | 55.2                     | 41.5                          | 52.9               | 65.1                      |
| Informal feedback  | 60.1                     | 53.6                          | 60.1               | 59.9                      |
| <b>Use of technology</b>   |                          |                               |                    |                           |
| <b>Use of computers by staff</b>   |                          |                               |                    |                           |
| Percentage of administrative staff using computers for administrative activities | 98.6                     | 99.0                          | 99.6               | 96.0                      |
| Percentage of instructional staff using computers for administrative tasks       | 91.0                     | 80.9                          | 89.9               | 89.9                      |
| Percentage of instructional staff using computers for instructional activities   | 95.9                     | 89.3                          | 99.2               | 88.5                      |
| Percentage of instructional staff using computers for assessment                 | 65.6                     | 40.3                          | 66.1               | 62.8                      |
| <b>Use of computers by learners</b>  |                          |                               |                    |                           |
| Percentage of learners using computers for instructional activities              | 43.6                     | 30.9                          | 37.0               | 30.8                      |
| Percentage of learners using computers for assessment activities                 | 55.1                     | 29.9                          | 62.1               | 55.1                      |

TABLE 1.17 (CONCLUDED)

## A profile of adult education providers

|  | Local education agencies  | Community-based organizations   | Community colleges  | Correctional institutions   |
|--|---|---|---|---|
|  | %   | %   | %   | %   |
| <b>Capacity of computers (hardware / software)</b>   |   |   |   |   |
| Percentage of programs reporting that computers do not meet present needs and priorities of the following groups                                   | Learners (20.9%), instructional staff (14.2%), administrative staff (6.4%)  | Learners (28.0%), instructional staff (21.7%), administrative staff (12.5%) | Learners (16.0%), instructional staff (12.9%), administrative staff (6.0%)  | Learners (28.6%), instructional staff (17.9%), administrative staff (2.7%)  |
| Percentage of programs reporting that computers meet the present needs of the following groups but will need upgrading within the next three years | Learners (75.0%), instructional staff (78.9%), administrative staff (83.0%) | Learners (64.0%), instructional staff (70.4%), administrative staff (83.5%) | Learners (80.3%), instructional staff (82.8%), administrative staff (84.9%) | Learners (68.8%), instructional staff (78.1%), administrative staff (85.3%) |
|  | Local education agencies  | Community-based organizations   | Community colleges  | Correctional institutions   |
|  | Weeks   | Weeks   | Weeks   | Weeks   |
| <b>Instructional and support services</b>  |   |   |   |   |
| <b>Intensity as average number of weeks</b>  |   |   |   |   |
| Adult basid education  | 41.7  | 44.1  | 44.2  | 48.7  |
| Adult secondary education  | 38.4  | 29.7  | 42.5  | 42.8  |
| English as a second language   | 33.9  | 35.3  | 38.8  | 32.1  |





# Appendix B2

## Chapter 2 Tables

### Table of Contents

|           |  |     |
|-----------|--|-----|
| Table 2.1 | Skills on the prose literacy, document literacy and numeracy scales  | 245 |
| Table 2.2 | Percentage of adults aged 16 to 65 at each skill level, by type of instruction                                     | 245 |
| Table 2.3 | Gender and skills on the prose literacy, document literacy and numeracy scales, overall and by type of instruction | 246 |
| Table 2.4 | Gender and skills on the prose literacy, document literacy and numeracy scales                                     | 247 |
| Table 2.5 | Age and skills on the prose literacy, document literacy and numeracy scales  | 248 |
| Table 2.6 | Age and skills on the prose literacy, document literacy and numeracy scales, by type of instruction                | 249 |
| Table 2.7 | Mother tongue and skills on the prose literacy, document literacy and numeracy scales, by place of birth           | 251 |
| Table 2.8 | Ethnicity and skills on the prose literacy, document literacy and numeracy scales                                  | 252 |

## Table of Contents

|            |   |     |
|------------|---|-----|
| Table 2.9  | Race and skills on the prose literacy, document literacy and numeracy scales  | 253 |
| Table 2.10 | Educational attainment and skills on the prose literacy, document literacy and numeracy scales, overall and by place of birth                         | 254 |
| Table 2.11 | Latent class analysis for adult learners based on reading engagement, AEPS population   | 255 |
| Table 2.12 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement | 257 |
| Table 2.13 | Latent class analysis for adult learners based on wealth, AEPS population   | 261 |
| Table 2.14 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth             | 262 |
| Table 2.15 | Latent class analysis for adult learners based on health, AEPS population   | 264 |
| Table 2.16 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health             | 268 |
| Table 2.17 | Demographical and social characteristics of adult learners and performance on the prose literacy scale, by the OVAE geographical regions              | 270 |
| Table 2.18 | Performance of adult learners, by the OVAE geographical regions   | 271 |
| Table 2.19 | Characteristics of adult learners, by type of instruction   | 272 |
| Table 2.20 | Characteristics of adult learners, by skill level on the prose literacy scale   | 274 |

TABLE 2.1

## Skills on the prose literacy, document literacy and numeracy scales

| Scale and type of instruction  | Percentiles |              |             |            |              |            |              |            |              |            |              |            |              |
|--------------------------------|-------------|--------------|-------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
|                                | Overall     |              |             | 10th       |              | 25th       |              | 50th       |              | 75th       |              | 90th       |              |
|                                | Mean score  | S.E.         | S.D.        | Score      | S.E.         | Score      | S.E.         | Score      | S.E.         | Score      | S.E.         | Score      | S.E.         |
| <b>Prose literacy scale</b>    | <b>219</b>  | <b>(1.9)</b> | <b>60.3</b> | <b>134</b> | <b>(4.3)</b> | <b>186</b> | <b>(3.4)</b> | <b>229</b> | <b>(1.8)</b> | <b>262</b> | <b>(2.5)</b> | <b>290</b> | <b>(5.5)</b> |
| Adult basic education          | 240         | (3.5)        | 41.5        | 190        | (3.0)        | 215        | (3.5)        | 241        | (2.5)        | 268        | (4.3)        | 293        | (7.4)        |
| Adult secondary education      | 255         | (3.3)        | 41.1        | 203        | (2.8)        | 229        | (4.5)        | 256        | (3.1)        | 285        | (10.1)       | 308        | (3.2)        |
| English as a second language   | 175         | (3.1)        | 61.7        | 94         | (3.9)        | 132        | (3.9)        | 176        | (3.7)        | 218        | (4.2)        | 254        | (4.2)        |
| <b>Document literacy scale</b> | <b>228</b>  | <b>(1.9)</b> | <b>52.5</b> | <b>153</b> | <b>(3.2)</b> | <b>196</b> | <b>(2.6)</b> | <b>232</b> | <b>(1.8)</b> | <b>268</b> | <b>(3.6)</b> | <b>292</b> | <b>(2.9)</b> |
| Adult basic education          | 244         | (3.7)        | 40.5        | 194        | (6.0)        | 220        | (1.5)        | 246        | (4.4)        | 271        | (3.7)        | 294        | (8.0)        |
| Adult secondary education      | 258         | (3.0)        | 39.0        | 209        | (1.6)        | 232        | (1.7)        | 260        | (3.0)        | 287        | (4.0)        | 311        | (5.9)        |
| English as a second language   | 192         | (2.5)        | 51.0        | 127        | (2.0)        | 155        | (3.0)        | 192        | (3.1)        | 227        | (2.2)        | 257        | (2.8)        |
| <b>Numeracy scale</b>          | <b>203</b>  | <b>(2.1)</b> | <b>53.6</b> | <b>134</b> | <b>(2.3)</b> | <b>170</b> | <b>(2.7)</b> | <b>205</b> | <b>(1.9)</b> | <b>238</b> | <b>(3.7)</b> | <b>272</b> | <b>(3.7)</b> |
| Adult basic education          | 210         | (4.4)        | 47.4        | 153        | (2.7)        | 179        | (1.7)        | 210        | (4.1)        | 239        | (6.4)        | 272        | (10.6)       |
| Adult secondary education      | 229         | (3.3)        | 46.8        | 168        | (9.1)        | 197        | (12.2)       | 228        | (2.4)        | 262        | (5.4)        | 290        | (2.6)        |
| English as a second language   | 182         | (2.7)        | 55.8        | 111        | (1.9)        | 142        | (1.4)        | 182        | (4.4)        | 220        | (2.0)        | 253        | (4.3)        |

TABLE 2.2

## Percentage of adults aged 16 to 65 at each skill level, by type of instruction

| Scale and type of instruction  | Level 1 (0 to 225 points)   |              |            |              | Level 2 (226 to 275 points) |              |            |               | Level 3 (276 to 325 points) |              |            |              |
|--------------------------------|-----------------------------|--------------|------------|--------------|-----------------------------|--------------|------------|---------------|-----------------------------|--------------|------------|--------------|
|                                | %                           | S.E.         | Mean score | S.E.         | %                           | S.E.         | Mean score | S.E.          | %                           | S.E.         | Mean score | S.E.         |
| <b>Prose literacy scale</b>    | <b>48.8</b>                 | <b>(1.3)</b> | <b>171</b> | <b>(1.8)</b> | <b>35.5</b>                 | <b>(1.0)</b> | <b>250</b> | <b>(0.7)</b>  | <b>14.3</b>                 | <b>(1.4)</b> | <b>295</b> | <b>(1.4)</b> |
| Adult basic education          | 35.5                        | (2.7)        | 197        | (2.0)        | 46.8                        | (2.0)        | 250        | (1.0)         | 16.2                        | (2.8)        | 294        | (1.8)        |
| Adult secondary education      | 23.6                        | (3.0)        | 200        | (3.3)        | 45.2                        | (1.9)        | 252        | (0.9)         | 28.3                        | (3.0)        | 297        | (2.2)        |
| English as a second language   | 78.6                        | (1.6)        | 153        | (2.5)        | 16.8                        | (1.3)        | 248        | (1.0)         | 4.2                         | (0.5)        | 293        | (2.1)        |
| <b>Document literacy scale</b> | <b>44.3</b>                 | <b>(1.5)</b> | <b>181</b> | <b>(1.4)</b> | <b>37.4</b>                 | <b>(1.0)</b> | <b>250</b> | <b>(0.4)</b>  | <b>16.7</b>                 | <b>(1.3)</b> | <b>294</b> | <b>(0.8)</b> |
| Adult basic education          | 30.7                        | (3.1)        | 199        | (2.2)        | 47.9                        | (2.3)        | 250        | (0.6)         | 19.5                        | (2.6)        | 294        | (1.8)        |
| Adult secondary education      | 19.2                        | (2.3)        | 201        | (2.9)        | 46.0                        | (2.4)        | 251        | (1.3)         | 32.0                        | (2.9)        | 295        | (1.8)        |
| English as a second language   | 74.5                        | (1.7)        | 170        | (2.0)        | 20.5                        | (1.2)        | 247        | (1.2)         | 4.7                         | (0.6)        | 293        | (1.5)        |
| <b>Numeracy scale</b>          | <b>66.4</b>                 | <b>(1.8)</b> | <b>174</b> | <b>(1.2)</b> | <b>25.3</b>                 | <b>(0.9)</b> | <b>248</b> | <b>(1.0)</b>  | <b>7.7</b>                  | <b>(1.1)</b> | <b>294</b> | <b>(1.1)</b> |
| Adult basic education          | 65.5                        | (3.9)        | 183        | (1.6)        | 26.4                        | (2.0)        | 248        | (1.7)         | 7.5                         | (2.5)        | 293        | (2.7)        |
| Adult secondary education      | 46.9                        | (3.2)        | 189        | (2.2)        | 38.2                        | (1.8)        | 250        | (1.9)         | 13.7                        | (2.0)        | 295        | (2.0)        |
| English as a second language   | 78.5                        | (1.6)        | 161        | (2.3)        | 16.7                        | (1.2)        | 246        | (1.0)         | 4.3                         | (0.5)        | 294        | (1.3)        |
|                                | Level 4 (326 to 375 points) |              |            |              | Level 5 (376 to 500 points) |              |            |               |                             |              |            |              |
|                                | %                           | S.E.         | Mean score | S.E.         | %                           | S.E.         | Mean score | S.E.          |                             |              |            |              |
| <b>Prose literacy scale</b>    | <b>1.3</b>                  | <b>(0.3)</b> | <b>340</b> | <b>(1.4)</b> | <b>0.1</b>                  | <b>(0.1)</b> | <b>396</b> | <b>(17.6)</b> |                             |              |            |              |
| Adult basic education          | 1.2                         | (0.6)        | 339        | (3.3)        | 0.2                         | (0.2)        | 389        | (33.6)        |                             |              |            |              |
| Adult secondary education      | 2.9                         | (0.6)        | 340        | (4.7)        | 0.1                         | (0.1)        | 369        | (26.7)        |                             |              |            |              |
| English as a second language   | 0.4                         | (0.1)        | 338        | (5.7)        | 0.0                         | (0.0)        | n.a.       | n.a.          |                             |              |            |              |
| <b>Document literacy scale</b> | <b>1.5</b>                  | <b>(0.4)</b> | <b>339</b> | <b>(3.1)</b> | <b>0.0</b>                  | <b>(0.0)</b> | <b>368</b> | <b>(32.7)</b> |                             |              |            |              |
| Adult basic education          | 1.9                         | (1.0)        | 339        | (5.4)        | 0.0                         | (0.0)        | *          | *             |                             |              |            |              |
| Adult secondary education      | 2.8                         | (0.7)        | 339        | (2.8)        | 0.0                         | (0.0)        | *          | *             |                             |              |            |              |
| English as a second language   | 0.3                         | (0.1)        | 334        | (5.5)        | 0.0                         | (0.0)        | n.a.       | n.a.          |                             |              |            |              |
| <b>Numeracy scale</b>          | <b>0.7</b>                  | <b>(0.1)</b> | <b>341</b> | <b>(5.4)</b> | <b>0.0</b>                  | <b>(0.0)</b> | <b>374</b> | <b>(24.0)</b> |                             |              |            |              |
| Adult basic education          | 0.6                         | (0.3)        | 340        | (8.8)        | 0.1                         | (0.1)        | 362        | (28.8)        |                             |              |            |              |
| Adult secondary education      | 1.2                         | (0.4)        | 339        | (8.2)        | 0.0                         | (0.0)        | n.a.       | n.a.          |                             |              |            |              |
| English as a second language   | 0.5                         | (0.1)        | 341        | (4.3)        | 0.0                         | (0.0)        | *          | *             |                             |              |            |              |

n.a. not applicable

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 2.3

Gender and skills on the prose literacy, document literacy and numeracy scales, overall and by type of instruction

| Scale, gender, and type of instruction | Overall    |              |             | Level 1     |              |            | Level 2      |             |              |            |              |
|--|------------|--------------|-------------|-------------|--------------|------------|--------------|-------------|--------------|------------|--------------|
|  | Mean score | S.E.         | S.D.        | %           | S.E.         | Mean score | S.E.         | %           | S.E.         | Mean score | S.E.         |
| <b>Prose literacy scale</b>            |            |              |             |             |              |            |              |             |              |            |              |
| <b>Males</b>                           | <b>219</b> | <b>(2.6)</b> | <b>59.5</b> | <b>49.0</b> | <b>(2.2)</b> | <b>172</b> | <b>(2.5)</b> | <b>36.0</b> | <b>(1.8)</b> | <b>249</b> | <b>(0.8)</b> |
| Adult basic education                  | 237        | (4.1)        | 41.7        | 37.7        | (4.1)        | 196        | (2.7)        | 45.6        | (3.0)        | 249        | (1.0)        |
| Adult secondary education              | 253        | (3.8)        | 39.9        | 23.7        | (3.8)        | 200        | (5.3)        | 46.2        | (3.5)        | 251        | (1.5)        |
| English as a second language           | 174        | (4.0)        | 63.0        | 78.4        | (1.8)        | 151        | (3.8)        | 17.1        | (1.4)        | 247        | (1.6)        |
| <b>Females</b>                         | <b>220</b> | <b>(2.1)</b> | <b>60.9</b> | <b>48.7</b> | <b>(1.4)</b> | <b>171</b> | <b>(2.0)</b> | <b>35.1</b> | <b>(1.2)</b> | <b>251</b> | <b>(0.8)</b> |
| Adult basic education                  | 243        | (3.9)        | 41.1        | 33.1        | (2.7)        | 199        | (2.5)        | 48.1        | (2.2)        | 251        | (1.2)        |
| Adult secondary education              | 256        | (3.9)        | 42.0        | 23.5        | (3.0)        | 199        | (4.1)        | 44.4        | (2.3)        | 252        | (1.0)        |
| English as a second language           | 176        | (3.2)        | 60.5        | 78.8        | (1.8)        | 154        | (2.3)        | 16.6        | (1.5)        | 248        | (1.0)        |
| <b>Document literacy scale</b>         |            |              |             |             |              |            |              |             |              |            |              |
| <b>Males</b>                           | <b>229</b> | <b>(2.2)</b> | <b>51.3</b> | <b>42.9</b> | <b>(2.2)</b> | <b>181</b> | <b>(2.0)</b> | <b>38.9</b> | <b>(1.7)</b> | <b>250</b> | <b>(0.8)</b> |
| Adult basic education                  | 243        | (4.0)        | 40.5        | 30.9        | (4.3)        | 197        | (2.8)        | 48.0        | (3.4)        | 250        | (0.9)        |
| Adult secondary education              | 259        | (2.9)        | 37.2        | 16.6        | (2.1)        | 202        | (6.4)        | 48.5        | (3.2)        | 250        | (1.5)        |
| English as a second language           | 192        | (2.9)        | 50.6        | 74.1        | (2.0)        | 170        | (2.8)        | 21.2        | (1.8)        | 247        | (2.1)        |
| <b>Females</b>                         | <b>228</b> | <b>(2.3)</b> | <b>53.4</b> | <b>45.6</b> | <b>(1.6)</b> | <b>181</b> | <b>(1.5)</b> | <b>36.2</b> | <b>(1.2)</b> | <b>250</b> | <b>(0.5)</b> |
| Adult basic education                  | 246        | (4.6)        | 40.5        | 30.5        | (3.2)        | 201        | (2.4)        | 47.8        | (2.1)        | 250        | (0.8)        |
| Adult secondary education              | 258        | (3.8)        | 40.2        | 21.1        | (2.7)        | 201        | (3.0)        | 44.1        | (2.7)        | 252        | (1.7)        |
| English as a second language           | 192        | (2.6)        | 51.2        | 74.7        | (1.9)        | 169        | (2.0)        | 20.0        | (1.5)        | 246        | (1.2)        |
| <b>Numeracy scale</b>                  |            |              |             |             |              |            |              |             |              |            |              |
| <b>Males</b>                           | <b>205</b> | <b>(2.3)</b> | <b>53.0</b> | <b>64.6</b> | <b>(2.0)</b> | <b>176</b> | <b>(1.9)</b> | <b>27.0</b> | <b>(1.5)</b> | <b>248</b> | <b>(1.6)</b> |
| Adult basic education                  | 211        | (4.4)        | 47.4        | 64.5        | (4.0)        | 184        | (2.6)        | 27.1        | (2.4)        | 248        | (2.3)        |
| Adult secondary education              | 231        | (4.2)        | 44.8        | 43.4        | (3.3)        | 191        | (3.3)        | 42.3        | (3.0)        | 249        | (2.6)        |
| English as a second language           | 184        | (3.3)        | 56.3        | 76.4        | (2.2)        | 162        | (3.3)        | 18.3        | (1.8)        | 246        | (1.3)        |
| <b>Females</b>                         | <b>202</b> | <b>(2.4)</b> | <b>54.0</b> | <b>67.9</b> | <b>(2.0)</b> | <b>173</b> | <b>(1.5)</b> | <b>23.8</b> | <b>(1.1)</b> | <b>248</b> | <b>(1.0)</b> |
| Adult basic education                  | 209        | (5.3)        | 47.5        | 66.5        | (4.5)        | 182        | (2.0)        | 25.6        | (2.5)        | 248        | (1.4)        |
| Adult secondary education              | 227        | (4.3)        | 48.1        | 49.4        | (3.9)        | 188        | (2.7)        | 35.2        | (2.2)        | 250        | (1.9)        |
| English as a second language           | 180        | (3.0)        | 55.3        | 80.1        | (1.6)        | 161        | (2.2)        | 15.4        | (1.2)        | 246        | (1.5)        |

TABLE 2.3 (CONCLUDED)

## Gender and skills on the prose literacy, document literacy and numeracy scales, overall and by type of instruction

| Scale, gender, and type of instruction | Level 3     |              |            |              | Level 4/5  |              |            |               |
|--|-------------|--------------|------------|--------------|------------|--------------|------------|---------------|
|  | %           | S.E.         | Mean score | S.E.         | %          | S.E.         | Mean score | S.E.          |
| <b>Prose literacy scale</b>            |             |              |            |              |            |              |            |               |
| <b>Males</b>                           | <b>14.2</b> | <b>(1.5)</b> | <b>294</b> | <b>(1.7)</b> | <b>0.9</b> | <b>(0.3)</b> | <b>338</b> | <b>(6.0)</b>  |
| Adult basic education                  | 15.8        | (3.0)        | 293        | (2.6)        | 1.0        | (0.6)        | 339        | (9.2)         |
| Adult secondary education              | 28.1        | (3.9)        | 296        | (2.3)        | 2.0        | (0.5)        | 338        | (7.1)         |
| English as a second language           | 4.3         | (0.7)        | 290        | (1.9)        | 0.2        | (0.1)        | 337        | (9.6)         |
| <b>Females</b>                         | <b>14.5</b> | <b>(1.5)</b> | <b>296</b> | <b>(1.5)</b> | <b>1.8</b> | <b>(0.4)</b> | <b>347</b> | <b>(6.3)</b>  |
| Adult basic education                  | 16.7        | (2.9)        | 294        | (1.9)        | 2.0        | (0.9)        | 356        | (13.1)        |
| Adult secondary education              | 28.4        | (3.4)        | 297        | (2.9)        | 3.7        | (0.9)        | 342        | (5.0)         |
| English as a second language           | 4.2         | (0.7)        | 295        | (3.2)        | 0.5        | (0.1)        | 338        | (4.1)         |
| <b>Document literacy scale</b>         |             |              |            |              |            |              |            |               |
| <b>Males</b>                           | <b>17.2</b> | <b>(1.5)</b> | <b>293</b> | <b>(1.5)</b> | <b>0.9</b> | <b>(0.2)</b> | <b>338</b> | <b>(4.6)</b>  |
| Adult basic education                  | 20.2        | (3.0)        | 293        | (2.4)        | 1.0        | (0.4)        | 337        | (5.5)         |
| Adult secondary education              | 32.5        | (3.1)        | 295        | (3.5)        | 2.4        | (0.8)        | 339        | (7.2)         |
| English as a second language           | 4.8         | (0.8)        | 291        | (2.1)        | 0.0        | (0.0)        | 323        | (20.1)        |
| <b>Females</b>                         | <b>16.2</b> | <b>(1.4)</b> | <b>295</b> | <b>(1.7)</b> | <b>2.1</b> | <b>(0.6)</b> | <b>340</b> | <b>(4.0)</b>  |
| Adult basic education                  | 18.8        | (2.8)        | 294        | (2.5)        | 2.9        | (1.6)        | 340        | (6.6)         |
| Adult secondary education              | 31.6        | (3.6)        | 296        | (2.6)        | 3.1        | (0.9)        | 341        | (4.4)         |
| English as a second language           | 4.7         | (0.7)        | 295        | (1.8)        | 0.6        | (0.1)        | 334        | (5.7)         |
| <b>Numeracy scale</b>                  |             |              |            |              |            |              |            |               |
| <b>Males</b>                           | <b>8.0</b>  | <b>(1.2)</b> | <b>293</b> | <b>(1.8)</b> | <b>0.4</b> | <b>(0.1)</b> | <b>343</b> | <b>(13.5)</b> |
| Adult basic education                  | 8.2         | (2.6)        | 292        | (4.7)        | 0.2        | (0.2)        | 347        | (47.7)        |
| Adult secondary education              | 13.1        | (2.0)        | 294        | (4.0)        | 1.1        | (0.5)        | 327        | (18.2)        |
| English as a second language           | 5.0         | (0.9)        | 294        | (2.0)        | 0.2        | (0.1)        | 334        | (4.3)         |
| <b>Females</b>                         | <b>7.3</b>  | <b>(1.2)</b> | <b>295</b> | <b>(2.1)</b> | <b>1.0</b> | <b>(0.3)</b> | <b>343</b> | <b>(4.6)</b>  |
| Adult basic education                  | 6.8         | (2.5)        | 294        | (2.9)        | 1.1        | (0.7)        | 340        | (8.4)         |
| Adult secondary education              | 14.2        | (2.6)        | 295        | (3.5)        | 1.3        | (0.6)        | 341        | (7.9)         |
| English as a second language           | 3.8         | (0.6)        | 295        | (2.8)        | 0.7        | (0.2)        | 345        | (4.5)         |

TABLE 2.4

## Gender and skills on the prose literacy, document literacy and numeracy scales

| Scale and gender               | Percentiles |       |       |       |       |       |       |       |       |       |
|--------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                | 10TH        |       | 25th  |       | 50th  |       | 75th  |       | 90th  |       |
|                                | Score       | S.E.  | Score | S.E.  | Score | S.E.  | Score | S.E.  | Score | S.E.  |
| <b>Prose literacy scale</b>    |             |       |       |       |       |       |       |       |       |       |
| Male                           | 137         | (2.9) | 186   | (6.9) | 228   | (2.1) | 260   | (3.2) | 285   | (5.1) |
| Female                         | 132         | (3.4) | 185   | (3.9) | 230   | (2.3) | 264   | (2.2) | 295   | (3.8) |
| <b>Document literacy scale</b> |             |       |       |       |       |       |       |       |       |       |
| Male                           | 154         | (4.2) | 197   | (5.6) | 233   | (3.4) | 268   | (4.9) | 290   | (5.1) |
| Female                         | 151         | (3.1) | 196   | (2.4) | 232   | (2.0) | 267   | (3.5) | 294   | (3.0) |
| <b>Numeracy scale</b>          |             |       |       |       |       |       |       |       |       |       |
| Male                           | 137         | (4.9) | 173   | (1.8) | 208   | (3.0) | 240   | (2.7) | 274   | (2.5) |
| Female                         | 133         | (3.0) | 166   | (2.9) | 202   | (2.6) | 236   | (3.2) | 270   | (5.2) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 2.5

Age and skills on the prose literacy, document literacy and numeracy scales

| Scale                             | Age groups |       |          |       |          |       |          |       |             |       |
|-----------------------------------|------------|-------|----------|-------|----------|-------|----------|-------|-------------|-------|
|                                   | 16 to 18   |       | 19 to 24 |       | 25 to 44 |       | 45 to 59 |       | 60 or older |       |
|                                   | S.E.       | S.E.  | S.E.     | S.E.  | S.E.     | S.E.  | S.E.     | S.E.  | S.E.        |       |
| <b>Overall</b>                    |            |       |          |       |          |       |          |       |             |       |
| Percentage                        | 4.4        | (0.9) | 30.1     | (2.0) | 45.9     | (1.9) | 15.6     | (1.4) | 1.7         | (0.3) |
| <b>Prose literacy scale</b>       |            |       |          |       |          |       |          |       |             |       |
| Mean score                        | 248        | (5.2) | 236      | (3.2) | 214      | 2.5   | 208      | (5.2) | 164         | (7.3) |
| S.D.                              | 42.9       |       | 50.7     |       | 59.4     |       | 66.7     |       | 63.6        |       |
| <b>Percentage by skill levels</b> |            |       |          |       |          |       |          |       |             |       |
| Level 1                           | 29.5       | (4.0) | 36.5     | (2.3) | 53.6     | (1.9) | 57.2     | (3.4) | 83.0        | (4.0) |
| Level 2                           | 44.1       | (4.1) | 44.0     | (2.2) | 32.7     | (1.6) | 30.0     | (2.5) | 14.2        | (2.6) |
| Level 3                           | 25.1       | (3.3) | 17.9     | (2.6) | 13.0     | (1.2) | 10.4     | (2.4) | 2.7         | (2.1) |
| Level 4/5                         | 1.4        | (0.7) | 1.5      | (0.5) | 0.8      | (0.2) | 2.4      | (0.9) | 0.1         | (0.1) |
| <b>Document literacy scale</b>    |            |       |          |       |          |       |          |       |             |       |
| Mean score                        | 250        | (5.7) | 245      | (2.8) | 222      | 2.3   | 218      | (4.5) | 182         | (6.6) |
| S.D.                              | 41.1       |       | 45.6     |       | 51.6     |       | 55.3     |       | 50.4        |       |
| <b>Percentage by skill levels</b> |            |       |          |       |          |       |          |       |             |       |
| Level 1                           | 23.1       | (5.2) | 29.3     | (2.2) | 50.2     | (2.0) | 54.8     | (3.6) | 77.9        | (4.8) |
| Level 2                           | 49.0       | (4.0) | 45.8     | (2.4) | 35.2     | (1.3) | 30.3     | (2.7) | 18.3        | (3.8) |
| Level 3                           | 25.5       | (4.4) | 23.1     | (2.2) | 13.5     | (1.3) | 12.5     | (2.4) | 3.8         | (2.8) |
| Level 4/5                         | 2.5        | (0.7) | 1.8      | (0.7) | 1.1      | (0.3) | 2.5      | (0.9) | 0.0         | (0.0) |
| <b>Numeracy scale</b>             |            |       |          |       |          |       |          |       |             |       |
| Mean score                        | 218        | (8.2) | 212      | (2.8) | 201      | (2.3) | 199      | (4.7) | 165         | (6.4) |
| S.D.                              | 53.0       |       | 49.9     |       | 51.9     |       | 57.9     |       | 54.4        |       |
| <b>Percentage by skill levels</b> |            |       |          |       |          |       |          |       |             |       |
| Level 1                           | 57.3       | (6.4) | 61.1     | (2.4) | 68.9     | (1.9) | 68.2     | (3.5) | 86.7        | (4.0) |
| Level 2                           | 28.7       | (6.1) | 30.0     | (1.2) | 24.0     | (1.2) | 22.3     | (1.7) | 10.6        | (2.6) |
| Level 3                           | 13.5       | (3.6) | 8.0      | (1.7) | 6.6      | (0.9) | 8.3      | (2.2) | 2.7         | (2.1) |
| Level 4/5                         | 0.4        | (0.3) | 0.8      | (0.3) | 0.5      | (0.1) | 1.3      | (0.5) | 0.0         | (0.0) |

TABLE 2.6

Age and skills on the prose literacy, document literacy and numeracy scales,  
by type of instruction

| Score                             | Adult basic education |        | Adult secondary education |        | English as a second language |        |
|-----------------------------------|-----------------------|--------|---------------------------|--------|------------------------------|--------|
|                                   |                       | S.E.   |                           | S.E.   |                              | S.E.   |
| <b>16 to 18</b>                   |                       |        |                           |        |                              |        |
| <b>Overall</b>                    |                       |        |                           |        |                              |        |
| Percentage                        | 4.3                   | (1.4)  | 11.9                      | (2.9)  | 0.2                          | (0.1)  |
| <b>Prose literacy scale</b>       |                       |        |                           |        |                              |        |
| Mean score                        | 247                   | (5.2)  | 252                       | (7.3)  | 137                          | (28.7) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 30.7                  | (5.1)  | 26.5                      | (5.0)  | 91.8                         | (12.5) |
| Level 2                           | 52.5                  | (6.0)  | 39.1                      | (5.1)  | 8.2                          | (12.5) |
| Level 3                           | 16.3                  | (2.7)  | 32.3                      | (6.4)  | 0.0                          | (0.0)  |
| Level 4/5                         | 0.4                   | (0.5)  | 2.1                       | (1.3)  | 0.0                          | (0.0)  |
| <b>Document literacy scale</b>    |                       |        |                           |        |                              |        |
| Mean score                        | 251                   | (4.8)  | 253                       | (8.0)  | 159                          | (36.3) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 20.3                  | (8.9)  | 22.9                      | (4.4)  | 90.1                         | (14.8) |
| Level 2                           | 55.3                  | (10.4) | 45.7                      | (5.3)  | 9.1                          | (13.8) |
| Level 3                           | 23.5                  | (3.3)  | 27.7                      | (7.7)  | 0.9                          | (1.4)  |
| Level 4/5                         | 0.9                   | (0.7)  | 3.7                       | (1.5)  | 0.0                          | (0.0)  |
| <b>Numeracy literacy scale</b>    |                       |        |                           |        |                              |        |
| Mean score                        | 219                   | (8.1)  | 220                       | (11.3) | 134                          | (44.4) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 59.9                  | (9.0)  | 54.1                      | (8.1)  | 95.2                         | (6.9)  |
| Level 2                           | 35.5                  | (10.6) | 24.6                      | (4.5)  | 3.8                          | (5.6)  |
| Level 3                           | 4.5                   | (2.7)  | 20.6                      | (7.7)  | 1.0                          | (1.5)  |
| Level 4/5                         | 0.0                   | (0.0)  | 0.7                       | (0.6)  | 0.0                          | (0.0)  |
| <b>19 to 24</b>                   |                       |        |                           |        |                              |        |
| <b>Overall</b>                    |                       |        |                           |        |                              |        |
| Percentage                        | 36.9                  | (3.8)  | 45.7                      | (3.0)  | 13.4                         | (1.0)  |
| <b>Prose literacy scale</b>       |                       |        |                           |        |                              |        |
| Mean score                        | 241                   | (4.7)  | 257                       | (4.0)  | 177                          | (4.2)  |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 32.5                  | (3.5)  | 20.7                      | (3.4)  | 79.9                         | (2.6)  |
| Level 2                           | 50.5                  | (3.8)  | 47.5                      | (2.9)  | 16.4                         | (2.1)  |
| Level 3                           | 15.2                  | (3.6)  | 30.0                      | (4.4)  | 3.4                          | (0.9)  |
| Levels 4/5                        | 1.8                   | (0.9)  | 1.7                       | (0.6)  | 0.2                          | (0.1)  |
| <b>Document literacy scale</b>    |                       |        |                           |        |                              |        |
| Mean score                        | 250                   | (4.5)  | 262                       | (3.3)  | 195                          | (3.3)  |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 24.3                  | (3.9)  | 14.4                      | (2.4)  | 73.8                         | (3.0)  |
| Level 2                           | 52.6                  | (4.1)  | 47.3                      | (4.3)  | 21.4                         | (2.4)  |
| Level 3                           | 20.7                  | (3.3)  | 36.8                      | (4.0)  | 4.7                          | (1.2)  |
| Level 4/5                         | 2.4                   | (1.3)  | 1.6                       | (0.6)  | 0.1                          | (0.0)  |
| <b>Numeracy literacy scale</b>    |                       |        |                           |        |                              |        |
| Mean score                        | 211                   | (4.9)  | 231                       | (4.1)  | 179                          | (3.9)  |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |        |
| Level 1                           | 65.6                  | (4.3)  | 43.2                      | (3.4)  | 81.4                         | (2.6)  |
| Level 2                           | 25.2                  | (1.8)  | 45.4                      | (2.7)  | 15.6                         | (2.0)  |
| Level 3                           | 8.4                   | (3.1)  | 10.2                      | (1.7)  | 2.8                          | (0.7)  |
| Level 4/5                         | 0.7                   | (0.4)  | 1.2                       | (0.7)  | 0.2                          | (0.1)  |

TABLE 2.6 (CONTINUED)

Age and skills on the prose literacy, document literacy and numeracy scales, by type of instruction

| Score                             | Adult basic education |       | Adult secondary education |       | English as a second language |       |
|-----------------------------------|-----------------------|-------|---------------------------|-------|------------------------------|-------|
|                                   |                       | S.E.  |                           | S.E.  |                              | S.E.  |
| <b>25 to 44</b>                   |                       |       |                           |       |                              |       |
| <b>Overall</b>                    |                       |       |                           |       |                              |       |
| Percentage                        | 42.2                  | (3.4) | 27.8                      | (3.3) | 60.4                         | (2.7) |
| <b>Prose literacy scale</b>       |                       |       |                           |       |                              |       |
| Mean score                        | 242                   | (3.5) | 251                       | (4.9) | 181                          | (3.2) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 33.5                  | (3.1) | 26.8                      | (4.3) | 76.8                         | (1.7) |
| Level 2                           | 46.6                  | (2.5) | 46.8                      | (3.0) | 17.6                         | (1.1) |
| Level 3                           | 19.2                  | (2.8) | 23.4                      | (3.0) | 5.2                          | (0.9) |
| Level 4/5                         | 0.6                   | (0.3) | 2.9                       | (1.0) | 0.4                          | (0.1) |
| <b>Document literacy scale</b>    |                       |       |                           |       |                              |       |
| Mean score                        | 244                   | (3.9) | 256                       | (4.7) | 195                          | (2.6) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 32.2                  | (3.2) | 20.7                      | (3.7) | 72.6                         | (1.8) |
| Level 2                           | 46.8                  | (2.2) | 50.5                      | (2.4) | 21.8                         | (1.3) |
| Level 3                           | 20.1                  | (3.0) | 24.7                      | (3.7) | 5.2                          | (0.8) |
| Level 4/5                         | 0.9                   | (0.7) | 4.1                       | (1.4) | 0.4                          | (0.2) |
| <b>Numeracy literacy scale</b>    |                       |       |                           |       |                              |       |
| Mean score                        | 209                   | (4.8) | 224                       | (5.7) | 187                          | (3.1) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 64.4                  | (4.6) | 53.7                      | (5.7) | 76.6                         | (2.1) |
| Level 2                           | 28.2                  | (2.7) | 33.9                      | (4.0) | 18.0                         | (1.4) |
| Level 3                           | 7.2                   | (2.2) | 10.8                      | (2.1) | 5.0                          | (0.8) |
| Level 4/5                         | 0.2                   | (0.2) | 1.5                       | (0.6) | 0.5                          | (0.2) |
| <b>45 to 59</b>                   |                       |       |                           |       |                              |       |
| <b>Overall</b>                    |                       |       |                           |       |                              |       |
| Percentage                        | 14.2                  | (2.4) | 10.9                      | (2.5) | 19.8                         | (1.5) |
| <b>Prose literacy scale</b>       |                       |       |                           |       |                              |       |
| Mean score                        | 236                   | (7.3) | 263                       | (6.8) | 168                          | (5.5) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 44.4                  | (6.1) | 18.2                      | (5.9) | 80.1                         | (3.6) |
| Level 2                           | 41.2                  | (5.0) | 43.1                      | (5.0) | 16.6                         | (2.4) |
| Level 3                           | 10.8                  | (5.1) | 33.2                      | (5.6) | 2.9                          | (1.2) |
| Levels 4/5                        | 3.6                   | (1.9) | 5.5                       | (2.7) | 0.4                          | (0.3) |
| <b>Document literacy scale</b>    |                       |       |                           |       |                              |       |
| Mean score                        | 238                   | (6.8) | 260                       | (8.6) | 189                          | (4.5) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 39.9                  | (6.2) | 23.8                      | (7.7) | 76.7                         | (4.0) |
| Level 2                           | 41.3                  | (5.7) | 38.3                      | (5.6) | 18.7                         | (2.6) |
| Level 3                           | 14.8                  | (5.2) | 32.9                      | (5.7) | 4.1                          | (1.4) |
| Level 4/5                         | 3.9                   | (1.9) | 5.0                       | (2.6) | 0.5                          | (0.4) |
| <b>Numeracy literacy scale</b>    |                       |       |                           |       |                              |       |
| Mean score                        | 210                   | (7.8) | 239                       | (8.8) | 178                          | (5.6) |
| <b>Percentage by skill levels</b> |                       |       |                           |       |                              |       |
| Level 1                           | 67.3                  | (6.5) | 35.3                      | (8.2) | 79.2                         | (3.8) |
| Level 2                           | 23.6                  | (3.2) | 38.9                      | (5.9) | 16.0                         | (2.3) |
| Level 3                           | 7.2                   | (4.9) | 24.6                      | (4.2) | 4.1                          | (2.0) |
| Level 4/5                         | 1.9                   | (1.0) | 1.3                       | (1.0) | 0.7                          | (0.6) |

TABLE 2.6 (CONCLUDED)

## Age and skills on the prose literacy, document literacy and numeracy scales, by type of instruction

| Score                             | Adult basic education |        | Adult secondary education |        | English as a second language |       |
|-----------------------------------|-----------------------|--------|---------------------------|--------|------------------------------|-------|
|                                   |                       | S.E.   |                           | S.E.   |                              | S.E.  |
| <b>60 or older</b>                |                       |        |                           |        |                              |       |
| <b>Overall</b>                    |                       |        |                           |        |                              |       |
| Percentage                        | 1.3                   | (0.3)  | 0.8                       | (0.4)  | 2.7                          | (0.6) |
| <b>Prose literacy</b>             |                       |        |                           |        |                              |       |
| Mean score                        | 184                   | (10.3) | 237                       | (16.8) | 141                          | (8.3) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |       |
| Level 1                           | 87.0                  | (3.8)  | 40.3                      | (15.6) | 88.0                         | (4.8) |
| Level 2                           | 12.0                  | (3.6)  | 36.1                      | (8.9)  | 11.7                         | (4.7) |
| Level 3                           | 0.8                   | (1.0)  | 23.6                      | (11.6) | 0.3                          | (0.3) |
| Level 4/5                         | 0.2                   | (0.2)  | 0.0                       | (0.0)  | 0.0                          | (0.0) |
| <b>Document literacy</b>          |                       |        |                           |        |                              |       |
| Mean score                        | 190                   | (9.6)  | 242                       | (15.9) | 167                          | (6.4) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |       |
| Level 1                           | 75.4                  | (7.6)  | 42.6                      | (13.6) | 85.4                         | (4.9) |
| Level 2                           | 23.5                  | (7.7)  | 26.0                      | (3.7)  | 14.1                         | (4.8) |
| Level 3                           | 1.0                   | (1.2)  | 31.4                      | (15.5) | 0.6                          | (0.5) |
| Level 4/5                         | 0.0                   | (0.0)  | 0.0                       | (0.0)  | 0.0                          | (0.0) |
| <b>Numeracy literacy</b>          |                       |        |                           |        |                              |       |
| Mean score                        | 162                   | (10.1) | 231                       | (18.4) | 156                          | (6.2) |
| <b>Percentage by skill levels</b> |                       |        |                           |        |                              |       |
| Level 1                           | 92.5                  | (4.3)  | 53.7                      | (17.1) | 89.1                         | (3.5) |
| Level 2                           | 6.7                   | (4.2)  | 22.7                      | (5.7)  | 10.8                         | (3.5) |
| Level 3                           | 0.8                   | (1.0)  | 23.6                      | (11.6) | 0.2                          | (0.2) |
| Level 4/5                         | 0.0                   | (0.0)  | 0.0                       | (0.0)  | 0.0                          | (0.0) |

TABLE 2.7

## Mother tongue and skills on the prose literacy, document literacy and numeracy scales, by place of birth

| Place of birth             | Mother tongue     | Performance |       |                |        |                   |        |            |        |
|----------------------------|-------------------|-------------|-------|----------------|--------|-------------------|--------|------------|--------|
|                            |                   | Percentage  |       | Prose literacy |        | Document literacy |        | Numeracy   |        |
|                            |                   | %           | S.E.  | Mean score     | S.E.   | Mean score        | S.E.   | Mean score | S.E.   |
| <b>Overall</b>             |                   |             |       |                |        |                   |        |            |        |
|                            | English           | 55.5        | (0.8) | 246            | (2.6)  | 250               | (2.8)  | 216        | (3.3)  |
|                            | Spanish           | 29.3        | (0.5) | 192            | (2.9)  | 203               | (2.3)  | 190        | (2.4)  |
|                            | European language | 1.8         | (0.4) | 198            | (7.4)  | 212               | (5.6)  | 193        | (7.5)  |
|                            | Asian language    | 6.9         | (0.9) | 176            | (8.3)  | 199               | (7.3)  | 195        | (7.6)  |
|                            | Others            | 6.4         | (0.7) | 167            | (5.5)  | 184               | (4.7)  | 167        | (4.7)  |
| <b>Native learners</b>     |                   |             |       |                |        |                   |        |            |        |
|                            | English           | 94.7        | (0.9) | 247            | (2.6)  | 251               | (2.8)  | 217        | (3.3)  |
|                            | Spanish           | 4.5         | (0.7) | 238            | (7.3)  | 242               | (8.0)  | 211        | (7.6)  |
|                            | European language | 0.3         | (0.2) | *              | *      | *                 | *      | *          | *      |
|                            | Asian language    | 0.1         | (0.1) | *              | *      | *                 | *      | *          | *      |
|                            | Others            | 0.2         | (0.1) | *              | *      | *                 | *      | *          | *      |
| <b>Non-native learners</b> |                   |             |       |                |        |                   |        |            |        |
|                            | English           | 3.0         | (0.8) | 226            | (14.5) | 228               | (12.8) | 197        | (15.2) |
|                            | Spanish           | 62.6        | (0.9) | 187            | (2.9)  | 200               | (2.3)  | 188        | (2.5)  |
|                            | European language | 3.8         | (1.0) | 198            | (7.6)  | 211               | (6.4)  | 192        | (8.2)  |
|                            | Asian language    | 15.8        | (2.1) | 176            | (8.2)  | 199               | (7.3)  | 195        | (7.6)  |
|                            | Others            | 14.7        | (1.7) | 166            | (5.3)  | 183               | (4.6)  | 166        | (4.5)  |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 2.8

Ethnicity and skills on the prose literacy, document literacy and numeracy scales

| Scale                             | Ethnicity         |        |            |         |        |            |                       |        |            |         |        |            |
|-----------------------------------|-------------------|--------|------------|---------|--------|------------|-----------------------|--------|------------|---------|--------|------------|
|                                   | Hispanic learners |        |            |         |        |            | Non-Hispanic learners |        |            |         |        |            |
|                                   | Overall           | Native | Non-native | Overall | Native | Non-native | Overall               | Native | Non-native | Overall | Native | Non-native |
|                                   | S.E.              | S.E.   | S.E.       | S.E.    | S.E.   | S.E.       | S.E.                  | S.E.   | S.E.       | S.E.    | S.E.   | S.E.       |
| <b>Overall</b>                    |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Percentage                        | 35.0              | (0.1)  | 13.9       | (0.8)   | 63.3   | (0.9)      | 63.7                  | (0.6)  | 84.2       | (1.2)   | 36.3   | (0.9)      |
| <b>Prose literacy scale</b>       |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Mean scores                       | 200               | (2.6)  | 246        | (3.6)   | 186    | (3.0)      | 230                   | (2.5)  | 247        | (2.6)   | 180    | (4.3)      |
| <b>Percentage by skill levels</b> |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Level 1                           | 64.1              | (1.4)  | 32.5       | (2.9)   | 73.3   | (1.7)      | 40.1                  | (1.7)  | 28.9       | (1.9)   | 74.3   | (2.4)      |
| Level 2                           | 26.0              | (1.2)  | 45.6       | (2.5)   | 20.3   | (1.2)      | 40.8                  | (1.4)  | 48.3       | (1.7)   | 17.7   | (1.7)      |
| Level 3                           | 8.9               | (1.1)  | 18.8       | (3.0)   | 6.0    | (1.1)      | 17.5                  | (1.9)  | 20.9       | (2.4)   | 7.1    | (1.3)      |
| Level 4/5                         | 1.0               | (0.3)  | 3.1        | (1.3)   | 0.4    | (0.1)      | 1.6                   | (0.4)  | 1.9        | (0.6)   | 0.9    | (0.3)      |
| <b>Document literacy scale</b>    |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Mean scores                       | 210               | (2.1)  | 249        | (4.0)   | 199    | (2.3)      | 238                   | (2.6)  | 251        | (2.9)   | 199    | (3.7)      |
| <b>Percentage by skill levels</b> |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Level 1                           | 60.8              | (1.7)  | 26.2       | (3.8)   | 70.9   | (2.0)      | 35.0                  | (1.9)  | 24.8       | (2.2)   | 66.5   | (2.1)      |
| Level 2                           | 29.3              | (1.5)  | 50.0       | (3.2)   | 23.2   | (1.4)      | 42.0                  | (1.4)  | 48.2       | (1.8)   | 23.1   | (1.4)      |
| Level 3                           | 9.4               | (1.0)  | 21.7       | (3.4)   | 5.9    | (1.1)      | 20.8                  | (1.8)  | 24.5       | (2.2)   | 9.5    | (1.5)      |
| Level 4/5                         | 0.5               | (0.2)  | 2.1        | (1.0)   | 0.0    | (0.0)      | 2.1                   | (0.6)  | 2.5        | (0.9)   | 0.9    | (0.2)      |
| <b>Numeracy scale</b>             |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Mean scores                       | 194               | (2.2)  | 216        | (3.5)   | 187    | (2.5)      | 209                   | (2.8)  | 217        | (3.5)   | 186    | (4.0)      |
| <b>Percentage by skill levels</b> |                   |        |            |         |        |            |                       |        |            |         |        |            |
| Level 1                           | 73.1              | (1.6)  | 60.5       | (3.5)   | 76.8   | (1.8)      | 62.5                  | (2.4)  | 58.7       | (3.1)   | 74.4   | (2.2)      |
| Level 2                           | 23.2              | (1.4)  | 34.0       | (3.3)   | 20.0   | (1.4)      | 26.4                  | (1.1)  | 29.9       | (1.4)   | 15.9   | (1.2)      |
| Level 3                           | 3.4               | (0.6)  | 4.5        | (1.4)   | 3.1    | (0.6)      | 10.1                  | (1.7)  | 10.6       | (2.2)   | 8.5    | (1.4)      |
| Level 4/5                         | 0.3               | (0.2)  | 1.0        | (0.6)   | 0.1    | (0.1)      | 0.9                   | (0.2)  | 0.9        | (0.3)   | 1.2    | (0.2)      |

TABLE 2.9

## Race and skills on the prose literacy, document literacy and numeracy scales

| Scale                             | Race  |       |                           |       |       |       |                    |       |
|-----------------------------------|-------|-------|---------------------------|-------|-------|-------|--------------------|-------|
|                                   | White |       | Black or African American |       | Asian |       | Other <sup>a</sup> |       |
|                                   |       | S.E   |                           | S.E   |       | S.E   |                    | S.E   |
| <b>Overall</b>                    |       |       |                           |       |       |       |                    |       |
| Percentage                        | 53.3  | (1.5) | 21.1                      | (0.4) | 8.9   | (0.8) | 6.3                | (0.8) |
| <b>Prose literacy scale</b>       |       |       |                           |       |       |       |                    |       |
| Mean scores                       | 226   | (3.4) | 224                       | (3.1) | 176   | (6.7) | 233                | (5.7) |
| <b>Percentage by skill levels</b> |       |       |                           |       |       |       |                    |       |
| Level 1                           | 44.2  | (2.1) | 47.2                      | (3.1) | 75.6  | (3.2) | 40.8               | (4.7) |
| Level 2                           | 35.7  | (1.5) | 43.5                      | (2.3) | 14.9  | (2.0) | 42.4               | (3.5) |
| Level 3                           | 18.1  | (2.4) | 8.7                       | (1.3) | 8.8   | (1.8) | 15.6               | (4.3) |
| Level 4/5                         | 2.0   | (0.6) | 0.6                       | (0.4) | 0.6   | (0.2) | 1.3                | (1.1) |
| <b>Document literacy scale</b>    |       |       |                           |       |       |       |                    |       |
| Mean scores                       | 235   | (3.2) | 226                       | (3.3) | 197   | (5.7) | 241                | (4.8) |
| <b>Percentage by skill levels</b> |       |       |                           |       |       |       |                    |       |
| Level 1                           | 39.6  | (2.1) | 45.1                      | (3.4) | 68.1  | (3.1) | 33.2               | (5.0) |
| Level 2                           | 37.1  | (1.5) | 45.5                      | (2.5) | 20.0  | (1.6) | 42.1               | (4.6) |
| Level 3                           | 21.0  | (2.2) | 8.8                       | (1.3) | 10.6  | (1.9) | 24.1               | (3.5) |
| Level 4/5                         | 2.3   | (0.8) | 0.6                       | (0.3) | 1.2   | (0.4) | 0.6                | (0.3) |
| <b>Numeracy scale</b>             |       |       |                           |       |       |       |                    |       |
| Mean scores                       | 213   | (3.5) | 186                       | (2.6) | 190   | (5.6) | 214                | (4.9) |
| <b>Percentage by skill levels</b> |       |       |                           |       |       |       |                    |       |
| Level 1                           | 58.1  | (2.9) | 84.3                      | (1.4) | 70.8  | (3.2) | 58.7               | (5.2) |
| Level 2                           | 30.5  | (1.3) | 13.4                      | (0.9) | 16.6  | (1.5) | 35.8               | (5.0) |
| Level 3                           | 10.4  | (2.0) | 2.3                       | (0.9) | 10.8  | (1.9) | 5.3                | (1.4) |
| Level 4/5                         | 1.0   | (0.3) | 0.0                       | (0.0) | 1.7   | (0.4) | 0.1                | (0.1) |

<sup>a</sup> Due to small frequencies, the category others include the following groups: i) native hawaiian or pacific islander (0.7 per cent), and ii) American Indian or Alaska Native (5.7 per cent).

TABLE 2.10

Educational attainment and skills on the prose literacy, document literacy and numeracy scales, overall and by place of birth

| Place of birth and scale               | Educational attainment |        |                 |       |                    |       |   |       |                |       |   |        |
|--|------------------------|--------|-----------------|-------|--------------------|-------|---|-------|----------------|-------|---|--------|
|  | No education           |        | Up to 8th grade |       | 9th and 11th grade |       | 12th grade to completion of high school |       | GED equivalent |       | Some education after high school <sup>a</sup> |        |
|  | S.E                    |        | S.E             | S.E   |                    | S.E   |   | S.E   | S.E            |       | S.E   |        |
| <b>Overall</b>                         |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Percentage                             | 33.5                   | (0.9)  | 8.8             | (0.8) | 41.3               | (1.8) | 8.2                                     | (1.4) | 3.1            | (0.5) | 4.1   | (0.8)  |
| <b>Mean score</b>                      |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Prose literacy                         | 177                    | (2.8)  | 225             | (5.1) | 242                | (1.6) | 247                                     | (7.5) | 257            | (6.3) | 257   | (10.6) |
| Document literacy                      | 194                    | (2.3)  | 230             | (5.0) | 247                | (1.7) | 252                                     | (7.6) | 257            | (5.7) | 260   | (9.8)  |
| Numeracy                               | 184                    | (2.5)  | 203             | (4.0) | 211                | (2.0) | 219                                     | (9.0) | 246            | (7.1) | 240   | (10.5) |
| <b>Native learners<sup>b</sup></b>     |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Percentage                             | 0.3                    | (0.1)  | 12.6            | (1.2) | 67.5               | (3.0) | 12.0                                    | (2.3) | 3.9            | (0.7) | 3.6   | (1.2)  |
| <b>Mean score</b>                      |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Prose literacy                         | 200                    | (23.9) | 233             | (3.6) | 244                | (1.6) | 255                                     | (7.2) | 271            | (7.1) | 286   | (8.5)  |
| Document literacy                      | 209                    | (15.2) | 237             | (4.4) | 248                | (1.7) | 259                                     | (7.6) | 269            | (6.1) | 287   | (8.1)  |
| Numeracy                               | 195                    | (16.1) | 207             | (3.8) | 212                | (2.2) | 225                                     | (9.5) | 254            | (8.0) | 260   | (11.5) |
| <b>Non-native learners<sup>c</sup></b> |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Percentage                             | 4.3                    | (0.8)  | 23.8            | (1.9) | 16.6               | (1.3) | 22.2                                    | (1.6) | n.a.           |       | 28.4  | (1.4)  |
| <b>Mean score</b>                      |                        |        |                 |       |                    |       |   |       |                |       |   |        |
| Prose literacy                         | 204                    | (10.8) | 155             | (4.5) | 185                | (5.3) | 180                                     | (3.1) | n.a.           |       | 206   | (3.6)  |
| Document literacy                      | 209                    | (8.8)  | 177             | (3.7) | 196                | (3.7) | 195                                     | (2.9) | n.a.           |       | 218   | (3.2)  |
| Numeracy                               | 182                    | (9.6)  | 164             | (4.6) | 184                | (4.2) | 183                                     | (3.5) | n.a.           |       | 208   | (3.8)  |

n.a. not applicable

<sup>a</sup> Due to low cell frequencies (unweighted cell counts included in parenthesis), for the overall and learners born in the United States, this category has been grouped to include the following original groups from question B1: i) vocational/technical program after high school but no diploma (63 cases), ii) vocational/technical diploma after high school (61 cases), iii) some college but no degree (112 cases), iv) associate's degree (A.A., A.S.) (17 cases), v) bachelor's degree (B.A., B.S.) (17 cases), vi) graduate or professional school but no degree (3 cases), vii) master's degree (M.A., M.S.) (9 cases), viii) doctorate degree (Ph.D., Ed.D) (0 cases), ix) professional degree beyond bachelor's degree (medicine/MD, dentistry/DDS, Law/JD/LL/B.) (19 cases). For the learners not born in the United States, this category has been grouped to include the following original groups from question A4: i) vocational/technical program after high school but no diploma, ii) vocational/technical diploma after high school, iii) some college but no degree, iv) associate's degree (A.A., A.S.), v) bachelor's degree (B.A., B.S.).

<sup>b</sup> Responses from question "what is the highest level of schooling you completed in the United States?" (question B1 of background questionnaire).

<sup>c</sup> Responses from question "what was the highest level of education you completed before you first immigrated to the United States?" (question A4 of background questionnaire). Note that these data do not account for education completed in the United States, after their immigration.

TABLE 2.11

## Latent class analysis for adult learners based on reading engagement, AEPS population

| Reading engagement classes:  | Class 1              |                       |                      |                      |                         | Class 2              |                       |                      |                      |                         |
|--|----------------------|-----------------------|----------------------|----------------------|-------------------------|----------------------|-----------------------|----------------------|----------------------|-------------------------|
|  | Probabilities        |                       |                      |                      |                         | Probabilities        |                       |                      |                      |                         |
| How often do you:  | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   |
| Use a public library?  | 0.31                 | 0.23                  | 0.20                 | 0.15                 | 0.11                    | 0.06                 | 0.07                  | 0.11                 | 0.32                 | 0.45                    |
| Visit a bookstore?   | 0.19                 | 0.37                  | 0.25                 | 0.14                 | 0.05                    | 0.01                 | 0.03                  | 0.12                 | 0.33                 | 0.51                    |
| How much time do you usually spend each day watching television or videos? | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR |
|  | 0.34                 | 0.32                  | 0.27                 | 0.07                 | 0.00                    | 0.22                 | 0.28                  | 0.33                 | 0.17                 | 0.00                    |
| How often do you read information from:                                    | At least once a week | Less than once a week | Rarely               | Never                |                         | At least once a week | Less than once a week | Rarely               | Never                |                         |
| Newspapers?  | 0.86                 | 0.08                  | 0.05                 |                      |                         | 0.86                 | 0.09                  | 0.05                 |                      |                         |
| Books?   | 0.80                 | 0.14                  | 0.05                 | 0.01                 |                         | 0.45                 | 0.20                  | 0.26                 | 0.09                 |                         |
| Magazines?   | 0.75                 | 0.17                  | 0.05                 | 0.02                 |                         | 0.59                 | 0.18                  | 0.16                 | 0.07                 |                         |
| Letter, notes, email?  | 0.71                 | 0.12                  | 0.10                 | 0.07                 |                         | 0.49                 | 0.13                  | 0.20                 | 0.18                 |                         |
| From newspapers, do you read:  | Yes                  | No                    |                      |                      |                         | Yes                  | No                    |                      |                      |                         |
| National / international news?   | 0.88                 | 0.12                  |                      |                      |                         | 0.76                 | 0.24                  |                      |                      |                         |
| Regional or local news?  | 0.92                 | 0.08                  |                      |                      |                         | 0.98                 | 0.02                  |                      |                      |                         |
| Sports?  | 0.50                 | 0.50                  |                      |                      |                         | 0.51                 | 0.49                  |                      |                      |                         |
| Home, fashion, food or health?   | 0.75                 | 0.25                  |                      |                      |                         | 0.60                 | 0.40                  |                      |                      |                         |
| Editorial page?  | 0.50                 | 0.50                  |                      |                      |                         | 0.45                 | 0.55                  |                      |                      |                         |
| Financial news or stock listings?  | 0.37                 | 0.63                  |                      |                      |                         | 0.29                 | 0.71                  |                      |                      |                         |
| Book, movie or art reviews?  | 0.81                 | 0.19                  |                      |                      |                         | 0.63                 | 0.37                  |                      |                      |                         |
| Advice column?   | 0.58                 | 0.42                  |                      |                      |                         | 0.54                 | 0.46                  |                      |                      |                         |

TABLE 2.11 (CONCLUDED)

Latent class analysis for adult learners based on reading engagement, AEPS population

| Reading engagement classes:  | Class 3              |                       |                      |                      |                         | Class 4              |                       |                      |                      |                         |
|--|----------------------|-----------------------|----------------------|----------------------|-------------------------|----------------------|-----------------------|----------------------|----------------------|-------------------------|
|  | Probabilities        |                       |                      |                      |                         | Probabilities        |                       |                      |                      |                         |
| How often do you:  | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   |
| Use a public library?  | 0.16                 | 0.14                  | 0.17                 | 0.32                 | 0.21                    | 0.05                 | 0.05                  | 0.05                 | 0.14                 | 0.71                    |
| Visit a bookstore?   | 0.08                 | 0.19                  | 0.18                 | 0.37                 | 0.18                    | 0.02                 | 0.03                  | 0.03                 | 0.12                 | 0.79                    |
| How much time do you usually spend each day watching television or videos? | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR |
|  | 0.26                 | 0.30                  | 0.31                 | 0.12                 | 0.00                    | 0.34                 | 0.29                  | 0.23                 | 0.13                 | 0.01                    |
| How often do you read information from:                                    | At least once a week | Less than once a week | Rarely               | Never                |                         | At least once a week | Less than once a week | Rarely               | Never                |                         |
| Newspapers?  | 0.34                 | 0.18                  | 0.48                 |                      |                         | 0.27                 | 0.05                  | 0.68                 |                      |                         |
| Books?   | 0.46                 | 0.19                  | 0.31                 | 0.04                 |                         | 0.21                 | 0.07                  | 0.28                 | 0.44                 |                         |
| Magazines?   | 0.31                 | 0.24                  | 0.37                 | 0.07                 |                         | 0.16                 | 0.10                  | 0.29                 | 0.46                 |                         |
| Letter, notes, email?  | 0.47                 | 0.16                  | 0.25                 | 0.12                 |                         | 0.21                 | 0.07                  | 0.17                 | 0.55                 |                         |
| From newspapers, do you read:  | Yes                  | No                    |                      |                      |                         | Yes                  | No                    |                      |                      |                         |
| National/international news?   | 0.50                 | 0.50                  |                      |                      |                         | 0.45                 | 0.55                  |                      |                      |                         |
| Regional or local news?  | 0.66                 | 0.34                  |                      |                      |                         | 0.63                 | 0.37                  |                      |                      |                         |
| Sports?  | 0.43                 | 0.57                  |                      |                      |                         | 0.39                 | 0.61                  |                      |                      |                         |
| Home, fashion, food or health?   | 0.40                 | 0.60                  |                      |                      |                         | 0.27                 | 0.73                  |                      |                      |                         |
| Editorial page?  | 0.12                 | 0.88                  |                      |                      |                         | 0.10                 | 0.90                  |                      |                      |                         |
| Financial news or stock listings?  | 0.14                 | 0.86                  |                      |                      |                         | 0.09                 | 0.91                  |                      |                      |                         |
| Book, movie or art reviews?  | 0.56                 | 0.44                  |                      |                      |                         | 0.25                 | 0.75                  |                      |                      |                         |
| Advice column?   | 0.24                 | 0.76                  |                      |                      |                         | 0.11                 | 0.89                  |                      |                      |                         |

TABLE 2.12

**Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement**

|   | Reading engagement |        |                |        |                   |        |            |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 1            |        |                |        |                   |        |            |        |
|   | Percentage         |        | Mean scores    |        |                   |        |            |        |
|   | %                  | S.E.   | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |                    | Score  | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall   | 22.7               | (1.0)  | <b>237</b>     | (2.5)  | <b>241</b>        | (2.6)  | <b>218</b> | (2.4)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |            |        |
| Male  | 21.0               | (1.4)  | <b>234</b>     | (3.7)  | <b>240</b>        | (3.3)  | <b>218</b> | (3.8)  |
| Female  | 24.1               | (1.5)  | <b>240</b>     | (3.5)  | <b>241</b>        | (3.7)  | <b>218</b> | (3.3)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |            |        |
| Native  | 20.9               | (1.4)  | <b>257</b>     | (3.1)  | <b>257</b>        | (3.5)  | <b>226</b> | (3.6)  |
| Non-native  | 25.1               | (1.3)  | <b>216</b>     | (3.7)  | <b>222</b>        | (3.2)  | <b>209</b> | (3.6)  |
| <b>Race</b>   |                    |        |                |        |                   |        |            |        |
| White   | 21.6               | (1.5)  | <b>243</b>     | (3.7)  | <b>247</b>        | (3.7)  | <b>225</b> | (4.2)  |
| Black   | 22.5               | (1.5)  | <b>236</b>     | (6.2)  | <b>234</b>        | (6.3)  | <b>198</b> | (6.1)  |
| Asian   | 28.3               | (3.8)  | <b>209</b>     | (10.3) | <b>221</b>        | (8.9)  | <b>217</b> | (7.8)  |
| Other   | 25.2               | (3.7)  | <b>237</b>     | (8.8)  | <b>244</b>        | (8.4)  | <b>225</b> | (9.2)  |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |            |        |
| Hispanic  | 22.2               | (1.4)  | <b>227</b>     | (4.4)  | <b>227</b>        | (3.8)  | <b>211</b> | (4.2)  |
| Non-Hispanic  | 22.9               | (1.4)  | <b>243</b>     | (3.2)  | <b>248</b>        | (3.4)  | <b>222</b> | (3.1)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |            |        |
| English   | 21.6               | (1.5)  | <b>255</b>     | (3.6)  | <b>256</b>        | (4.0)  | <b>225</b> | (4.1)  |
| Spanish   | 21.8               | (1.5)  | <b>222</b>     | (4.8)  | <b>225</b>        | (4.0)  | <b>212</b> | (4.3)  |
| European  | 42.0               | (8.7)  | <b>219</b>     | (7.8)  | <b>228</b>        | (9.8)  | <b>207</b> | (12.8) |
| Asian   | 27.2               | (3.7)  | <b>219</b>     | (12.4) | <b>230</b>        | (10.8) | <b>228</b> | (10.8) |
| Other   | 26.6               | (3.2)  | <b>199</b>     | (8.0)  | <b>209</b>        | (6.7)  | <b>189</b> | (8.2)  |
| <b>How well do you read English?</b>                            |                    |        |                |        |                   |        |            |        |
| Very well   | 26.6               | (1.7)  | <b>219</b>     | (4.2)  | <b>225</b>        | (3.4)  | <b>214</b> | (3.5)  |
| Well  | 19.4               | (3.5)  | <b>212</b>     | (14.1) | <b>217</b>        | (13.6) | <b>198</b> | (14.6) |
| Not well  | 17.7               | (8.1)  | 172            | (12.0) | 187               | (11.3) | 156        | (18.4) |
| Not at all  | 17.9               | (8.0)  | 218            | (19.3) | 228               | (17.5) | 205        | (16.0) |
| <b>Age</b>  |                    |        |                |        |                   |        |            |        |
| 16 to 25  | 18.8               | (1.5)  | <b>245</b>     | (4.9)  | <b>249</b>        | (4.1)  | <b>219</b> | (4.0)  |
| 26 to 35  | 24.3               | (1.8)  | <b>238</b>     | (4.0)  | <b>243</b>        | (4.0)  | <b>220</b> | (4.6)  |
| 36 to 45  | 27.7               | (2.5)  | <b>230</b>     | (5.6)  | <b>232</b>        | (5.5)  | <b>216</b> | (4.7)  |
| 46 to 55  | 25.3               | (3.3)  | <b>237</b>     | (6.6)  | <b>236</b>        | (5.3)  | <b>219</b> | (7.1)  |
| 56 to 65  | 14.8               | (3.4)  | <b>198</b>     | (10.1) | <b>209</b>        | (7.8)  | <b>193</b> | (8.7)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |            |        |
| No school   | 35.8               | (11.1) | 196            | (37.2) | 198               | (29.7) | 175        | (22.1) |
| Up to 8th grade   | 17.5               | (3.4)  | 232            | (10.1) | 235               | (8.7)  | 211        | (11.3) |
| Less than high school   | 20.7               | (1.7)  | <b>252</b>     | (3.4)  | <b>251</b>        | (3.9)  | <b>220</b> | (4.2)  |
| High school   | 28.1               | (4.3)  | <b>261</b>     | (9.0)  | 264               | (11.3) | 234        | (11.1) |
| More than high school   | 37.3               | (9.0)  | <b>261</b>     | (11.3) | <b>262</b>        | (10.3) | 241        | (7.9)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |            |        |
| No education  | 22.2               | (8.5)  | 182            | (22.2) | 189               | (24.3) | 155        | (29.8) |
| Up to 8th grade   | 14.7               | (3.0)  | <b>205</b>     | (15.1) | <b>215</b>        | (14.0) | <b>198</b> | (14.6) |
| Less than high school   | 25.5               | (3.6)  | <b>215</b>     | (7.7)  | <b>220</b>        | (6.2)  | <b>203</b> | (6.1)  |
| High school   | 21.9               | (2.9)  | <b>199</b>     | (8.2)  | <b>210</b>        | (7.1)  | <b>197</b> | (8.1)  |
| More than high school   | 33.1               | (2.0)  | <b>226</b>     | (4.3)  | <b>232</b>        | (3.7)  | <b>221</b> | (4.6)  |

TABLE 2.12 (CONTINUED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement

|   | Reading engagement |       |                |        |                   |        |          |        |
|---|--------------------|-------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 2            |       |                |        |                   |        |          |        |
|   | Percentage         |       | Mean scores    |        |                   |        |          |        |
|   | %                  | S.E.  | Prose literacy |        | Document literacy |        | Numeracy |        |
|   |                    | Score | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Overall   | 27.8               | (0.9) | 227            | (2.7)  | 235               | (2.5)  | 206      | (2.2)  |
| <b>Gender</b>   |                    |       |                |        |                   |        |          |        |
| Male  | 28.6               | (1.4) | 225            | (3.1)  | 234               | (3.1)  | 208      | (2.8)  |
| Female  | 27.0               | (1.4) | 230            | (3.1)  | 236               | (3.2)  | 204      | (2.7)  |
| <b>Place of birth</b>   |                    |       |                |        |                   |        |          |        |
| Native  | 34.4               | (1.8) | 244            | (2.8)  | 249               | (2.8)  | 213      | (2.8)  |
| Non-Native  | 18.9               | (1.0) | 187            | (2.9)  | 200               | (2.6)  | 188      | (2.7)  |
| <b>Race</b>   |                    |       |                |        |                   |        |          |        |
| White   | 27.5               | (1.4) | 233            | (3.8)  | 240               | (3.6)  | 216      | (3.6)  |
| Black   | 34.6               | (1.8) | 222            | (3.8)  | 226               | (2.9)  | 185      | (3.4)  |
| Asian   | 11.7               | (1.5) | 192            | (10.6) | 210               | (10.7) | 198      | (11.6) |
| Other   | 27.5               | (4.0) | 242            | (6.8)  | 255               | (6.4)  | 221      | (7.1)  |
| <b>Ethnicity</b>  |                    |       |                |        |                   |        |          |        |
| Hispanic  | 24.4               | (1.6) | 208            | (5.0)  | 218               | (5.4)  | 198      | (3.3)  |
| Non-Hispanic  | 29.6               | (1.1) | 236            | (2.9)  | 243               | (2.8)  | 209      | (2.8)  |
| <b>Mother tongue</b>  |                    |       |                |        |                   |        |          |        |
| English   | 34.2               | (1.5) | 244            | (3.0)  | 249               | (2.9)  | 212      | (3.0)  |
| Spanish   | 21.9               | (1.2) | 196            | (4.8)  | 207               | (4.6)  | 193      | (3.4)  |
| European  | 23.0               | (6.4) | 181            | (9.5)  | 205               | (11.6) | 186      | (13.8) |
| Asian   | 9.1                | (1.9) | 195            | (13.9) | 218               | (14.0) | 211      | (15.3) |
| Other   | 20.5               | (2.5) | 175            | (6.5)  | 193               | (6.4)  | 178      | (6.8)  |
| <b>How well do you read English?</b>                            |                    |       |                |        |                   |        |          |        |
| Very well   | 18.6               | (1.3) | 187            | (3.3)  | 201               | (3.0)  | 190      | (2.9)  |
| Well  | 22.8               | (3.4) | 204            | (10.3) | 214               | (10.5) | 192      | (7.2)  |
| Not well  | 13.0               | (4.3) | 173            | (14.4) | 193               | (11.3) | 170      | (11.2) |
| Not at all  | 9.0                | (5.6) | 199            | (24.3) | 214               | (14.9) | 176      | (18.9) |
| <b>Age</b>  |                    |       |                |        |                   |        |          |        |
| 16 to 25  | 26.8               | (1.9) | 239            | (3.1)  | 249               | (3.3)  | 212      | (2.8)  |
| 26 to 35  | 28.3               | (2.1) | 222            | (4.8)  | 231               | (4.3)  | 202      | (4.3)  |
| 36 to 45  | 26.9               | (2.9) | 219            | (6.0)  | 222               | (5.1)  | 201      | (4.6)  |
| 46 to 55  | 28.2               | (2.1) | 228            | (7.6)  | 237               | (8.1)  | 210      | (8.1)  |
| 56 to 65  | 34.7               | (6.1) | 212            | (8.6)  | 218               | (7.7)  | 200      | (8.9)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |       |                |        |                   |        |          |        |
| No school   | 14.8               | (6.4) | 185            | (60.1) | 201               | (50.0) | 189      | (55.8) |
| Up to 8th grade   | 31.8               | (3.3) | 232            | (7.3)  | 235               | (7.8)  | 212      | (6.2)  |
| Less than high school   | 34.5               | (1.9) | 239            | (2.4)  | 245               | (2.1)  | 207      | (2.5)  |
| High school   | 32.7               | (7.0) | 263            | (7.4)  | 273               | (7.9)  | 241      | (9.8)  |
| More than high school   | 27.8               | (6.3) | 279            | (12.6) | 271               | (9.3)  | 253      | (10.3) |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |       |                |        |                   |        |          |        |
| No education  | 19.8               | (6.8) | 220            | (16.2) | 223               | (12.7) | 190      | (9.0)  |
| Up to 8th grade   | 19.5               | (2.4) | 168            | (7.0)  | 185               | (6.0)  | 174      | (6.5)  |
| Less than high school   | 20.7               | (2.2) | 192            | (5.6)  | 202               | (5.2)  | 187      | (5.1)  |
| High school   | 19.4               | (1.8) | 189            | (7.1)  | 201               | (6.4)  | 193      | (6.2)  |
| More than high school   | 17.3               | (2.0) | 197            | (5.4)  | 212               | (4.7)  | 199      | (5.2)  |

TABLE 2.12 (CONTINUED)

**Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement**

|   | Reading engagement |        |                |        |                   |        |          |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 3            |        |                |        |                   |        |          |        |
|   | Percentage         |        | Prose literacy |        | Document literacy |        | Numeracy |        |
|   | %                  | S.E.   | Score          | S.E.   | Score             | S.E.   | Score    | S.E.   |
| Overall   | 26.5               | (1.3)  | 227            | (3.6)  | 235               | (3.3)  | 211      | (3.7)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |          |        |
| Male  | 23.8               | (2.2)  | 230            | (4.6)  | 239               | (3.9)  | 216      | (3.8)  |
| Female  | 28.9               | (1.3)  | 224            | (4.0)  | 232               | (3.7)  | 207      | (4.0)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |          |        |
| Native  | 26.7               | (2.5)  | 253            | (4.0)  | 256               | (4.1)  | 223      | (5.4)  |
| Non-Native  | 26.3               | (1.1)  | 193            | (4.0)  | 206               | (3.1)  | 194      | (3.8)  |
| <b>Race</b>   |                    |        |                |        |                   |        |          |        |
| White   | 28.2               | (2.2)  | 233            | (5.7)  | 241               | (5.3)  | 220      | (5.6)  |
| Black   | 25.0               | (1.9)  | 231            | (4.4)  | 234               | (3.9)  | 190      | (3.8)  |
| Asian   | 27.2               | (2.9)  | 196            | (10.2) | 215               | (9.2)  | 208      | (11.3) |
| Other   | 29.3               | (3.0)  | 237            | (9.9)  | 239               | (7.6)  | 215      | (7.6)  |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |          |        |
| Hispanic  | 26.3               | (1.2)  | 201            | (3.8)  | 211               | (2.6)  | 196      | (3.2)  |
| Non-Hispanic  | 26.7               | (1.9)  | 241            | (3.8)  | 247               | (3.7)  | 219      | (4.5)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |          |        |
| English   | 26.6               | (2.4)  | 254            | (3.9)  | 258               | (4.0)  | 225      | (5.3)  |
| Spanish   | 27.9               | (1.0)  | 194            | (4.4)  | 206               | (2.8)  | 191      | (3.3)  |
| European  | 17.3               | (5.7)  | 203            | (13.0) | 213               | (10.0) | 201      | (13.9) |
| Asian   | 29.5               | (3.4)  | 193            | (13.5) | 216               | (11.8) | 214      | (14.3) |
| Other   | 20.1               | (2.5)  | 181            | (6.2)  | 193               | (6.1)  | 170      | (8.0)  |
| <b>How well do you read English?</b>                            |                    |        |                |        |                   |        |          |        |
| Very well   | 27.7               | (1.1)  | 200            | (3.7)  | 213               | (3.2)  | 202      | (3.9)  |
| Well  | 21.8               | (2.0)  | 159            | (8.0)  | 178               | (4.9)  | 162      | (5.6)  |
| Not well  | 22.6               | (6.9)  | 181            | (49.6) | 189               | (26.3) | 172      | (28.6) |
| Not at all  | 27.1               | (14.3) | 198            | (21.6) | 198               | (10.6) | 154      | (9.9)  |
| <b>Age</b>  |                    |        |                |        |                   |        |          |        |
| 16 to 25  | 34.4               | (2.1)  | 242            | (3.7)  | 248               | (3.5)  | 217      | (3.8)  |
| 26 to 35  | 23.2               | (1.4)  | 214            | (6.1)  | 223               | (4.9)  | 203      | (5.6)  |
| 36 to 45  | 23.2               | (2.2)  | 211            | (7.0)  | 218               | (5.9)  | 202      | (6.5)  |
| 46 to 55  | 19.1               | (2.4)  | 222            | (11.7) | 233               | (8.6)  | 219      | (11.4) |
| 56 to 65  | 19.9               | (3.6)  | 201            | (12.8) | 217               | (9.9)  | 205      | (11.8) |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |          |        |
| No school   | 31.9               | (10.8) | 181            | (20.9) | 199               | (13.4) | 177      | (12.8) |
| Up to 8th grade   | 27.5               | (3.3)  | 227            | (9.5)  | 233               | (7.8)  | 201      | (8.0)  |
| Less than high school   | 26.3               | (2.2)  | 248            | (3.2)  | 253               | (3.1)  | 217      | (3.5)  |
| High school   | 29.0               | (5.6)  | 268            | (9.2)  | 262               | (9.2)  | 249      | (10.7) |
| More than high school   | 28.6               | (12.5) | 275            | (15.7) | 288               | (18.2) | 268      | (15.6) |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |          |        |
| No education  | 35.5               | (8.8)  | 242            | (20.0) | 233               | (10.5) | 210      | (11.0) |
| Up to 8th grade   | 20.9               | (1.9)  | 151            | (6.2)  | 172               | (4.6)  | 156      | (5.0)  |
| Less than high school   | 24.9               | (2.0)  | 186            | (5.8)  | 196               | (4.8)  | 181      | (5.1)  |
| High school   | 19.3               | (1.7)  | 190            | (4.7)  | 209               | (4.6)  | 198      | (5.2)  |
| More than high school   | 30.5               | (1.7)  | 213            | (6.3)  | 226               | (5.2)  | 217      | (7.2)  |

TABLE 2.12 (CONCLUDED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement

|   | Reading engagement |        |                |        |                   |        |            |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 4            |        |                |        |                   |        |            |        |
|   | Percentage         |        | Mean scores    |        |                   |        |            |        |
|   | %                  | S.E.   | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |                    | Score  | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall   | 23.0               | (1.4)  | <b>183</b>     | (4.0)  | <b>199</b>        | (3.1)  | <b>177</b> | (3.1)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |            |        |
| Male  | 26.6               | (2.0)  | <b>188</b>     | (5.3)  | <b>205</b>        | (4.1)  | <b>183</b> | (4.4)  |
| Female  | 19.9               | (1.2)  | <b>177</b>     | (4.7)  | <b>193</b>        | (3.8)  | <b>170</b> | (3.3)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |            |        |
| Native  | 18.0               | (1.9)  | <b>229</b>     | (3.3)  | <b>235</b>        | (3.4)  | <b>200</b> | (4.1)  |
| Non-Native  | 29.6               | (1.5)  | <b>147</b>     | (4.5)  | <b>170</b>        | (3.4)  | <b>159</b> | (3.9)  |
| <b>Race</b>   |                    |        |                |        |                   |        |            |        |
| White   | 22.7               | (1.8)  | <b>193</b>     | (3.8)  | <b>209</b>        | (3.6)  | <b>190</b> | (3.7)  |
| Black   | 17.8               | (2.1)  | <b>206</b>     | (6.5)  | <b>208</b>        | (6.3)  | <b>167</b> | (5.9)  |
| Asian   | 32.8               | (4.6)  | <b>126</b>     | (9.2)  | <b>157</b>        | (7.4)  | <b>150</b> | (6.8)  |
| Other   | 18.0               | (3.7)  | <b>206</b>     | (11.5) | <b>218</b>        | (10.5) | <b>184</b> | (8.0)  |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |            |        |
| Hispanic  | 27.0               | (1.4)  | <b>169</b>     | (4.0)  | <b>187</b>        | (3.0)  | <b>172</b> | (3.6)  |
| Non-Hispanic  | 20.9               | (1.8)  | <b>193</b>     | (6.0)  | <b>208</b>        | (4.9)  | <b>181</b> | (4.3)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |            |        |
| English   | 17.7               | (1.9)  | <b>229</b>     | (3.3)  | <b>235</b>        | (3.2)  | <b>200</b> | (3.8)  |
| Spanish   | 28.4               | (1.5)  | <b>162</b>     | (4.0)  | <b>182</b>        | (3.1)  | <b>170</b> | (4.1)  |
| European  | 17.7               | (3.6)  | <b>166</b>     | (17.7) | <b>182</b>        | (14.8) | <b>163</b> | (14.0) |
| Asian   | 34.3               | (4.3)  | <b>123</b>     | (9.2)  | <b>155</b>        | (7.8)  | <b>149</b> | (7.2)  |
| Other   | 32.8               | (4.2)  | <b>127</b>     | (8.7)  | <b>153</b>        | (7.0)  | <b>139</b> | (7.3)  |
| <b>How well do you read English?</b>                            |                    |        |                |        |                   |        |            |        |
| Very well   | 27.1               | (1.9)  | <b>155</b>     | (3.9)  | <b>176</b>        | (3.0)  | <b>167</b> | (3.2)  |
| Well  | 36.0               | (3.7)  | <b>133</b>     | (8.5)  | <b>161</b>        | (6.5)  | <b>146</b> | (6.2)  |
| Not well  | 46.6               | (7.7)  | 149            | (14.9) | 178               | (9.6)  | 156        | (11.8) |
| Not at all  | 46.0               | (17.0) | 201            | (21.9) | 220               | (15.4) | 174        | (16.5) |
| <b>Age</b>  |                    |        |                |        |                   |        |            |        |
| 16 to 25  | 19.9               | (2.1)  | <b>213</b>     | (4.0)  | <b>225</b>        | (3.2)  | <b>195</b> | (4.3)  |
| 26 to 35  | 24.2               | (2.0)  | <b>183</b>     | (5.0)  | <b>200</b>        | (4.2)  | <b>179</b> | (3.7)  |
| 36 to 45  | 22.2               | (1.9)  | <b>179</b>     | (6.3)  | <b>192</b>        | (4.9)  | <b>176</b> | (5.0)  |
| 46 to 55  | 27.4               | (2.8)  | <b>159</b>     | (9.4)  | <b>179</b>        | (6.4)  | <b>161</b> | (7.2)  |
| 56 to 65  | 30.6               | (4.1)  | <b>130</b>     | (7.3)  | <b>157</b>        | (5.3)  | <b>143</b> | (5.7)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |            |        |
| No school   | 17.5               | (6.8)  | 177            | (15.5) | 197               | (13.9) | 183        | (13.3) |
| Up to 8th grade   | 23.2               | (3.2)  | 208            | (7.4)  | 216               | (8.0)  | 186        | (6.1)  |
| Less than high school   | 18.4               | (1.9)  | <b>232</b>     | (3.7)  | <b>237</b>        | (3.6)  | <b>202</b> | (4.7)  |
| High school   | 10.2               | (2.9)  | <b>222</b>     | (15.0) | 234               | (14.5) | 203        | (14.1) |
| More than high school   | 6.3                | (4.5)  | <b>206</b>     | (23.2) | <b>218</b>        | (15.3) | 195        | (30.4) |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |            |        |
| No education  | 22.5               | (6.0)  | 153            | (23.9) | 178               | (21.8) | 158        | (18.8) |
| Up to 8th grade   | 44.8               | (3.1)  | <b>135</b>     | (5.7)  | <b>164</b>        | (4.1)  | <b>151</b> | (5.6)  |
| Less than high school   | 29.0               | (2.6)  | <b>144</b>     | (6.9)  | <b>165</b>        | (5.1)  | <b>156</b> | (6.1)  |
| High school   | 29.4               | (3.2)  | <b>154</b>     | (5.2)  | <b>175</b>        | (4.8)  | <b>163</b> | (3.9)  |
| More than high school   | 19.1               | (1.7)  | <b>170</b>     | (4.9)  | <b>187</b>        | (5.2)  | <b>178</b> | (3.8)  |

Note. Bold values indicate that the difference between the average score from Class 1 and the average score from Class 4 is statistically significant at 0.05 level.

<sup>a</sup> Educational attainment of native learners considers education completed in the United States.

<sup>b</sup> Educational attainment of non-native learners considers education completed in their own country, prior to immigration.

TABLE 2.13

## Latent class analysis for adult learners based on wealth, AEPS population

| Wealth classes:  | Class 1       |      | Class 2       |      |
|--|---------------|------|---------------|------|
|  | Probabilities |      | Probabilities |      |
|  | Yes           | No   | Yes           | No   |
| During the past year, did you receive any income from:   |               |      |               |      |
| Wages or salaries?                                       | 0.76          | 0.24 | 0.29          | 0.71 |
| Self-employment?   | 0.12          | 0.88 | 0.08          | 0.92 |
| Interest, dividends, capital gains or other investments? | 0.05          | 0.95 | 0.06          | 0.94 |
| Social security payments?                                | 0.00          | 1.00 | 0.31          | 0.69 |
| Employment insurance benefits?                           | 0.09          | 0.91 | 0.06          | 0.94 |
| SSI payments?  | 0.00          | 1.00 | 0.28          | 0.72 |
| Other government sources?                                | 0.06          | 0.94 | 0.19          | 0.81 |
| Pension or retirement income?                            | 0.01          | 0.99 | 0.05          | 0.95 |

TABLE 2.14

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth

|   | Wealth     |        |                |        |                   |        |          |        |
|---|------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 1    |        |                |        |                   |        |          |        |
|   | Percentage |        | Mean scores    |        |                   |        |          |        |
|   | %          | S.E.   | Prose literacy |        | Document literacy |        | Numeracy |        |
|   |            | Score  | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Overall   | 84.8       | (1.2)  | 220            | (2.1)  | 229               | (1.9)  | 206      | (2.1)  |
| <b>Gender</b>   |            |        |                |        |                   |        |          |        |
| Male  | 87.0       | (1.5)  | 220            | (2.6)  | 231               | (2.2)  | 208      | (2.4)  |
| Female  | 82.8       | (1.7)  | 220            | (2.5)  | 228               | (2.5)  | 204      | (2.5)  |
| <b>Place of birth</b>   |            |        |                |        |                   |        |          |        |
| Native  | 80.4       | (1.7)  | 249            | (2.5)  | 254               | (2.6)  | 220      | (3.2)  |
| Non-native  | 90.7       | (1.2)  | 186            | (2.2)  | 200               | (1.6)  | 188      | (2.0)  |
| <b>Race</b>   |            |        |                |        |                   |        |          |        |
| White   | 86.0       | (1.6)  | 226            | (3.6)  | 235               | (3.3)  | 214      | (3.4)  |
| Black   | 78.7       | (3.0)  | 227            | (3.1)  | 230               | (3.3)  | 190      | (2.8)  |
| Asian   | 84.1       | (3.8)  | 180            | (6.5)  | 201               | (5.8)  | 194      | (5.6)  |
| Other   | 87.2       | (3.7)  | 233            | (6.1)  | 241               | (5.3)  | 216      | (5.2)  |
| <b>Ethnicity</b>  |            |        |                |        |                   |        |          |        |
| Hispanic  | 92.6       | (1.2)  | 200            | (2.8)  | 210               | (2.2)  | 195      | (2.3)  |
| Non-Hispanic  | 80.5       | (1.8)  | 233            | (2.6)  | 241               | (2.6)  | 212      | (2.8)  |
| <b>Age</b>  |            |        |                |        |                   |        |          |        |
| 16 to 25  | 88.2       | (1.6)  | 236            | (2.7)  | 244               | (2.4)  | 213      | (2.7)  |
| 26 to 35  | 87.7       | (2.0)  | 215            | (3.5)  | 225               | (3.0)  | 203      | (3.0)  |
| 36 to 45  | 84.3       | (2.3)  | 210            | (3.6)  | 216               | (3.3)  | 201      | (3.0)  |
| 46 to 55  | 83.5       | (2.2)  | 212            | (6.3)  | 222               | (5.2)  | 204      | (5.7)  |
| 56 to 65  | 75.3       | (4.3)  | 186            | (8.7)  | 202               | (7.1)  | 188      | (7.7)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |            |        |                |        |                   |        |          |        |
| No education  | 75.4       | (11.8) | 191            | (15.0) | 202               | (11.7) | 184      | (10.5) |
| Up to 8th grade   | 74.0       | (3.6)  | 228            | (5.9)  | 233               | (5.9)  | 207      | (4.7)  |
| Less than high school   | 82.2       | (1.7)  | 246            | (1.8)  | 250               | (1.9)  | 215      | (2.3)  |
| High school   | 85.0       | (3.5)  | 265            | (6.1)  | 268               | (6.3)  | 242      | (7.4)  |
| More than high school   | 79.0       | (6.5)  | 263            | (10.5) | 266               | (10.0) | 246      | (9.9)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |            |        |                |        |                   |        |          |        |
| No education  | 84.1       | (6.5)  | 211            | (10.7) | 213               | (8.0)  | 188      | (8.0)  |
| Up to 8th grade   | 91.0       | (1.4)  | 156            | (4.8)  | 179               | (4.0)  | 166      | (5.0)  |
| Less than high school   | 93.7       | (1.2)  | 185            | (4.8)  | 196               | (3.6)  | 183      | (3.9)  |
| High school   | 91.0       | (2.2)  | 181            | (3.6)  | 197               | (3.5)  | 187      | (3.9)  |
| More than high school   | 91.0       | (2.0)  | 207            | (3.5)  | 219               | (3.0)  | 209      | (3.4)  |
| <b>Employment status</b>  |            |        |                |        |                   |        |          |        |
| Employed  | 92.1       | (0.9)  | 217            | (3.2)  | 228               | (2.8)  | 206      | (2.7)  |
| Unemployed  | 78.1       | (2.3)  | 227            | (2.6)  | 233               | (2.4)  | 205      | (2.8)  |
| Not in labor force  | 76.4       | (3.2)  | 219            | (5.5)  | 226               | (5.2)  | 206      | (4.3)  |
| Overall   | 15.2       | (1.2)  | 214            | (4.3)  | 222               | (4.1)  | 191      | (4.1)  |

TABLE 2.14 (CONCLUDED)

**Percentage of learners and mean scores on the prose literacy, document literacy  
and numeracy scales for each latent class based on wealth**

|   | Wealth     |        |                |        |                   |        |            |        |
|---|------------|--------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 2    |        |                |        |                   |        |            |        |
|   | Percentage |        | Mean scores    |        |                   |        |            |        |
|   | %          | S.E.   | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |            | Score  | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| <b>Gender</b>   |            |        |                |        |                   |        |            |        |
| Male  | 13.0       | (1.5)  | <b>205</b>     | (7.0)  | <b>213</b>        | (6.4)  | <b>189</b> | (6.9)  |
| Female  | 17.2       | (1.7)  | 221            | (4.2)  | 227               | (3.8)  | <b>193</b> | (3.6)  |
| <b>Place of birth</b>   |            |        |                |        |                   |        |            |        |
| Native  | 19.6       | (1.7)  | <b>232</b>     | (3.6)  | <b>236</b>        | (3.9)  | <b>201</b> | (4.2)  |
| Non-native  | 9.3        | (1.2)  | <b>165</b>     | (9.5)  | <b>182</b>        | (8.0)  | <b>166</b> | (9.0)  |
| <b>Race</b>   |            |        |                |        |                   |        |            |        |
| White   | 14.0       | (1.6)  | 226            | (6.2)  | 233               | (6.1)  | 207        | (6.9)  |
| Black   | 21.3       | (3.0)  | <b>213</b>     | (5.9)  | 215               | (6.6)  | <b>172</b> | (5.8)  |
| Asian   | 15.9       | (3.8)  | 154            | (15.7) | 179               | (12.4) | 172        | (14.6) |
| Other   | 12.8       | (3.7)  | 231            | (12.3) | 240               | (9.8)  | 200        | (10.3) |
| <b>Ethnicity</b>  |            |        |                |        |                   |        |            |        |
| Hispanic  | 7.4        | (1.2)  | 201            | (8.0)  | 207               | (6.6)  | <b>178</b> | (6.8)  |
| Non-Hispanic  | 19.5       | (1.8)  | <b>217</b>     | (4.5)  | <b>224</b>        | (4.4)  | <b>194</b> | (4.5)  |
| <b>Age</b>  |            |        |                |        |                   |        |            |        |
| 16 to 25  | 11.8       | (1.6)  | 233            | (8.5)  | 240               | (7.1)  | 203        | (7.0)  |
| 26 to 35  | 12.3       | (2.0)  | 212            | (7.0)  | 221               | (5.2)  | <b>185</b> | (6.6)  |
| 36 to 45  | 15.7       | (2.3)  | 221            | (7.6)  | 222               | (9.3)  | 192        | (8.8)  |
| 46 to 55  | 16.5       | (2.2)  | 201            | (11.0) | 211               | (10.3) | 185        | (10.6) |
| 56 to 65  | 24.7       | (4.3)  | 173            | (12.1) | 187               | (9.6)  | 165        | (9.5)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |            |        |                |        |                   |        |            |        |
| No education  | 24.6       | (11.8) | 174            | (54.6) | 188               | (39.5) | 163        | (34.2) |
| Up to 8th grade   | 26.0       | (3.6)  | 217            | (8.3)  | 222               | (8.7)  | 189        | (8.5)  |
| Less than high school   | 17.8       | (1.7)  | <b>229</b>     | (3.4)  | <b>233</b>        | (3.3)  | <b>194</b> | (3.4)  |
| High school   | 15.0       | (3.5)  | 233            | (16.0) | 237               | (15.8) | 212        | (19.0) |
| More than high school   | 21.0       | (6.5)  | 280            | (10.8) | 279               | (10.7) | <b>162</b> | (14.7) |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |            |        |                |        |                   |        |            |        |
| No education  | 15.9       | (6.5)  | 170            | (35.2) | 184               | (34.4) | 152        | (41.6) |
| Up to 8th grade   | 9.0        | (1.4)  | 142            | (19.8) | 163               | (16.1) | 144        | (17.2) |
| Less than high school   | 6.3        | (1.2)  | <b>147</b>     | (12.3) | <b>170</b>        | (9.3)  | <b>148</b> | (7.7)  |
| High school   | 9.0        | (2.2)  | 184            | (10.7) | 198               | (8.9)  | 184        | (7.2)  |
| More than high school   | 9.0        | (2.0)  | 195            | (15.7) | 208               | (12.9) | 196        | (16.5) |
| <b>Employment status</b>  |            |        |                |        |                   |        |            |        |
| Employed  | 7.9        | (0.9)  | 216            | (3.1)  | 218               | (5.1)  | 205        | (2.6)  |
| Unemployed  | 21.9       | (2.3)  | 222            | (4.7)  | 226               | (4.7)  | 202        | (2.3)  |
| Not in labor force  | 23.6       | (3.2)  | 210            | (9.3)  | 217               | (7.6)  | 203        | (4.1)  |

**Note.** Bold values indicate that the difference between the average score from Class 1 and the average score from Class 4 is statistically significant at 0.05 level.

<sup>a</sup> Educational attainment of native learners considers education completed in the United States.

<sup>b</sup> Educational attainment of non-native learners considers education completed in their own country, prior to immigration.

TABLE 2.15

Latent class analysis for adult learners based on health, AEPS population

| Health classes:   | Class 1                    |                              |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   | Probabilities              |                              |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.272                      | 0.623                        | 0.065                                     | 0.040                       | 0.000                        |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.522                      | 0.291                        | 0.163                                     | 0.025                       | 0.000                        |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.008                      | 0.019                        | 0.973                                     |                             |                              |                         |
| Climbing several flights of stairs  | 0.010                      | 0.017                        | 0.973                                     |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.015                      | 0.985                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.007                      | 0.993                        |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.016                      | 0.984                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.027                      | 0.973                        |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.904                      | 0.084                        | 0.010                                     | 0.002                       | 0.000                        |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.447                      | 0.467                        | 0.034                                     | 0.031                       | 0.012                        | 0.008                   |
| Did you have a lot of energy? Would that be...  | 0.531                      | 0.394                        | 0.046                                     | 0.020                       | 0.007                        | 0.003                   |
| Have you felt downhearted and blue? Would that be....   | 0.015                      | 0.016                        | 0.005                                     | 0.077                       | 0.226                        | 0.662                   |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>None of the time</b>      |                         |
|   | 0.004                      | 0.010                        | 0.026                                     | 0.033                       | 0.928                        |                         |

TABLE 2.15 (CONTINUED)

## Latent class analysis for adult learners based on health, AEPS population

| Health classes:   |                            | Class 2                      |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   |                            | Probabilities                |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.064                      | 0.657                        | 0.208                                     | 0.058                       | 0.013                        |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.174                      | 0.372                        | 0.372                                     | 0.076                       | 0.006                        |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.001                      | 0.070                        | 0.929                                     |                             |                              |                         |
| Climbing several flights of stairs  | 0.012                      | 0.107                        | 0.881                                     |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.019                      | 0.981                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.016                      | 0.984                        |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.067                      | 0.933                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.053                      | 0.947                        |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.740                      | 0.218                        | 0.031                                     | 0.009                       | 0.002                        |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.049                      | 0.540                        | 0.193                                     | 0.188                       | 0.028                        | 0.003                   |
| Did you have a lot of energy? Would that be...  | 0.064                      | 0.519                        | 0.203                                     | 0.182                       | 0.028                        | 0.004                   |
| Have you felt downhearted and blue? Would that be....   | 0.001                      | 0.010                        | 0.030                                     | 0.227                       | 0.441                        | 0.292                   |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>None of the time</b>      |                         |
|   | 0.002                      | 0.011                        | 0.056                                     | 0.164                       | 0.768                        |                         |

TABLE 2.15 (CONTINUED)

Latent class analysis for adult learners based on health, AEPS population

| Health classes:   |                            | Class 3                      |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   |                            | Probabilities                |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.052                      | 0.446                        | 0.281                                     | 0.195                       | 0.026                        |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.163                      | 0.264                        | 0.393                                     | 0.168                       | 0.013                        |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.033                      | 0.199                        | 0.768                                     |                             |                              |                         |
| Climbing several flights of stairs  | 0.064                      | 0.264                        | 0.672                                     |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.278                      | 0.722                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.251                      | 0.749                        |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.543                      | 0.458                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.433                      | 0.568                        |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.381                      | 0.363                        | 0.137                                     | 0.087                       | 0.033                        |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.070                      | 0.232                        | 0.168                                     | 0.361                       | 0.142                        | 0.028                   |
| Did you have a lot of energy? Would that be...  | 0.120                      | 0.247                        | 0.179                                     | 0.285                       | 0.137                        | 0.032                   |
| Have you felt downhearted and blue? Would that be....   | 0.025                      | 0.096                        | 0.136                                     | 0.367                       | 0.223                        | 0.154                   |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>None of the time</b>      |                         |
|   | 0.046                      | 0.094                        | 0.321                                     | 0.254                       | 0.285                        |                         |

TABLE 2.15 (CONCLUDED)

## Latent class analysis for adult learners based on health, AEPS population

| Health classes:   |                            | Class 4                      |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   |                            | Probabilities                |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.088                      | 0.379                        | 0.207                                     | 0.167                       | 0.160                        |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.084                      | 0.035                        | 0.215                                     | 0.405                       | 0.261                        |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.484                      | 0.405                        | 0.111                                     |                             |                              |                         |
| Climbing several flights of stairs  | 0.579                      | 0.307                        | 0.114                                     |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.902                      | 0.098                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.964                      | 0.036                        |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.737                      | 0.263                        |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.671                      | 0.329                        |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.012                      | 0.165                        | 0.129                                     | 0.457                       | 0.238                        |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.026                      | 0.215                        | 0.143                                     | 0.274                       | 0.249                        | 0.094                   |
| Did you have a lot of energy? Would that be...  | 0.009                      | 0.040                        | 0.087                                     | 0.417                       | 0.283                        | 0.164                   |
| Have you felt downhearted and blue? Would that be....   | 0.163                      | 0.128                        | 0.115                                     | 0.311                       | 0.172                        | 0.111                   |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>None of the time</b>      |                         |
|   | 0.137                      | 0.258                        | 0.412                                     | 0.107                       | 0.086                        |                         |

TABLE 2.16

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health

|                          | Health classes |       |                |        |                   |       |            |        |
|--------------------------|----------------|-------|----------------|--------|-------------------|-------|------------|--------|
|                          | Class 1        |       |                |        |                   |       |            |        |
|                          | Percentage     |       | Mean scores    |        |                   |       |            |        |
|                          | %              | S.E.  | Prose literacy |        | Document literacy |       | Numeracy   |        |
|                          |                | Score | S.E.           | Score  | S.E.              | Score | S.E.       |        |
| Overall                  | 30.5           | (1.3) | <b>209</b>     | (2.9)  | 219               | (2.6) | 197        | (2.6)  |
| <b>Gender</b>            |                |       |                |        |                   |       |            |        |
| Male                     | 33.8           | (1.9) | 208            | (3.6)  | 220               | (3.2) | 198        | (2.9)  |
| Female                   | 27.5           | (1.3) | <b>210</b>     | (3.2)  | <b>219</b>        | (3.0) | 196        | (3.5)  |
| <b>Place of birth</b>    |                |       |                |        |                   |       |            |        |
| Native                   | 22.0           | (1.3) | 246            | (3.9)  | 251               | (3.9) | 213        | (4.8)  |
| Non-native               | 41.9           | (2.2) | 182            | (2.6)  | 197               | (2.0) | 186        | (2.5)  |
| <b>Age</b>               |                |       |                |        |                   |       |            |        |
| 16 to 25                 | 27.7           | (1.6) | 224            | (4.8)  | 234               | (4.9) | 200        | (4.6)  |
| 26 to 35                 | 33.8           | (2.1) | 205            | (4.3)  | 217               | (3.9) | 200        | (4.2)  |
| 36 to 45                 | 33.7           | (1.8) | <b>202</b>     | (4.7)  | 208               | (3.7) | 194        | (4.3)  |
| 46 to 55                 | 27.0           | (2.8) | <b>193</b>     | (8.2)  | <b>210</b>        | (6.6) | 195        | (6.8)  |
| 56 to 65                 | 30.7           | (4.2) | 170            | (11.1) | 191               | (9.0) | 175        | (10.1) |
| <b>Employment status</b> |                |       |                |        |                   |       |            |        |
| Employed                 | 35.5           | (2.0) | <b>204</b>     | (3.4)  | <b>218</b>        | (2.8) | <b>198</b> | (2.8)  |
| Unemployed               | 24.7           | (1.5) | 215            | (5.0)  | 221               | (4.7) | 193        | (4.9)  |
| Not in labor force       | 27.0           | (2.1) | 214            | (7.2)  | 222               | (7.0) | 203        | (6.3)  |

|                          | Health classes |       |                |        |                   |       |          |       |
|--------------------------|----------------|-------|----------------|--------|-------------------|-------|----------|-------|
|                          | Class 2        |       |                |        |                   |       |          |       |
|                          | Percentage     |       | Mean scores    |        |                   |       |          |       |
|                          | %              | S.E.  | Prose literacy |        | Document literacy |       | Numeracy |       |
|                          |                | Score | S.E.           | Score  | S.E.              | Score | S.E.     |       |
| Overall                  | 37.3           | (0.9) | 225            | (2.5)  | 228               | (1.9) | 209      | (2.5) |
| <b>Gender</b>            |                |       |                |        |                   |       |          |       |
| Male                     | 38.3           | (1.7) | 225            | (3.6)  | 236               | (3.4) | 212      | (3.3) |
| Female                   | 36.4           | (1.1) | 224            | (3.4)  | 231               | (3.4) | 206      | (3.1) |
| <b>Place of birth</b>    |                |       |                |        |                   |       |          |       |
| Native                   | 38.4           | (1.2) | 250            | (2.8)  | 255               | (2.9) | 221      | (3.1) |
| Non-native               | 36.0           | (1.4) | 188            | (3.5)  | 202               | (2.8) | 191      | (2.9) |
| <b>Age</b>               |                |       |                |        |                   |       |          |       |
| 16 to 25                 | 35.0           | (1.2) | 240            | (2.9)  | 249               | (2.6) | 219      | (3.0) |
| 26 to 35                 | 29.6           | (1.6) | 221            | (4.5)  | 230               | (4.7) | 205      | (4.2) |
| 36 to 45                 | 38.3           | (2.9) | 218            | (4.3)  | 223               | (4.4) | 205      | (4.1) |
| 46 to 55                 | 40.9           | (3.1) | 218            | (7.9)  | 225               | (6.8) | 207      | (7.6) |
| 56 to 65                 | 30.6           | (3.0) | 184            | (11.7) | 202               | (8.5) | 188      | (8.1) |
| <b>Employment status</b> |                |       |                |        |                   |       |          |       |
| Employed                 | 38.9           | (1.5) | 221            | (3.9)  | 232               | (3.8) | 209      | (3.8) |
| Unemployed               | 36.8           | (1.4) | 231            | (4.0)  | 238               | (3.6) | 208      | (3.3) |
| Not in labor force       | 33.8           | (2.1) | 223            | (6.1)  | 230               | (5.4) | 210      | (5.0) |

TABLE 2.16 (CONCLUDED)

## Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health

|                          | Health classes |       |                |        |                   |        |            |        |
|--------------------------|----------------|-------|----------------|--------|-------------------|--------|------------|--------|
|                          | Class 3        |       |                |        |                   |        |            |        |
|                          | Percentage     |       | Mean scores    |        |                   |        |            |        |
|                          | %              | S.E.  | Prose literacy |        | Document literacy |        | Numeracy   |        |
|                          |                | Score | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall                  | 28.6           | (1.1) | 223            | (2.6)  | 231               | (2.3)  | 202        | (2.8)  |
| <b>Gender</b>            |                |       |                |        |                   |        |            |        |
| Male                     | 25.7           | (1.3) | 224            | (3.8)  | 233               | (2.8)  | 207        | (3.6)  |
| Female                   | 31.2           | (1.7) | 222            | (2.9)  | 229               | (3.0)  | 199        | (3.3)  |
| <b>Place of birth</b>    |                |       |                |        |                   |        |            |        |
| Native                   | 34.8           | (1.6) | 242            | (3.1)  | 246               | (3.0)  | 213        | (3.7)  |
| Non-native               | 20.2           | (1.5) | 180            | (5.2)  | 195               | (4.4)  | 180        | (4.6)  |
| <b>Age</b>               |                |       |                |        |                   |        |            |        |
| 16 to 25                 | 34.6           | (1.5) | 241            | (3.6)  | 246               | (3.2)  | 214        | (3.9)  |
| 26 to 35                 | 24.4           | (1.9) | 217            | (4.7)  | 226               | (3.3)  | 197        | (4.1)  |
| 36 to 45                 | 25.1           | (2.1) | 214            | (8.0)  | 221               | (6.9)  | 199        | (6.8)  |
| 46 to 55                 | 22.9           | (2.1) | 201            | (9.5)  | 212               | (7.6)  | 187        | (8.0)  |
| 56 to 65                 | 30.3           | (3.7) | 194            | (10.0) | 202               | (8.8)  | 184        | (9.5)  |
| <b>Employment status</b> |                |       |                |        |                   |        |            |        |
| Employed                 | 24.1           | (1.4) | 223            | (4.1)  | 233               | (3.2)  | 206        | (3.8)  |
| Unemployed               | 33.5           | (2.2) | 228            | (3.1)  | 234               | (3.0)  | 203        | (3.7)  |
| Not in labor force       | 32.3           | (2.3) | 215            | (7.0)  | 219               | (6.4)  | 195        | (5.5)  |
|                          |                |       |                |        |                   |        |            |        |
|                          | Health classes |       |                |        |                   |        |            |        |
|                          | Class 4        |       |                |        |                   |        |            |        |
|                          | Percentage     |       | Mean scores    |        |                   |        |            |        |
|                          | %              | S.E.  | Prose literacy |        | Document literacy |        | Numeracy   |        |
|                          |                | Score | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall                  | 3.6            | (0.4) | <b>227</b>     | (7.9)  | 229               | (7.3)  | 206        | (8.3)  |
| <b>Gender</b>            |                |       |                |        |                   |        |            |        |
| Male                     | 2.2            | (0.5) | 199            | (14.2) | 199               | (11.6) | 186        | (11.0) |
| Female                   | 4.9            | (0.6) | <b>238</b>     | (9.3)  | <b>241</b>        | (8.6)  | 214        | (10.5) |
| <b>Place of birth</b>    |                |       |                |        |                   |        |            |        |
| Native                   | 4.8            | (0.7) | 247            | (9.3)  | 245               | (8.8)  | 217        | (10.1) |
| Non-native               | 1.9            | (0.3) | 172            | (9.3)  | 184               | (8.9)  | 175        | (9.5)  |
| <b>Age</b>               |                |       |                |        |                   |        |            |        |
| 16 to 25                 | 2.7            | (0.6) | 240            | (15.5) | 249               | (12.9) | 221        | (15.7) |
| 26 to 35                 | 2.1            | (0.8) | 220            | (9.9)  | 221               | (8.1)  | 185        | (15.1) |
| 36 to 45                 | 2.9            | (0.7) | <b>224</b>     | (8.8)  | 216               | (9.5)  | 201        | (8.7)  |
| 46 to 55                 | 9.2            | (2.5) | <b>247</b>     | (15.2) | <b>245</b>        | (15.6) | 224        | (14.2) |
| 56 to 65                 | 8.4            | (2.1) | 187            | (20.3) | 196               | (17.9) | 182        | (20.9) |
| <b>Employment status</b> |                |       |                |        |                   |        |            |        |
| Employed                 | 1.5            | (0.4) | <b>254</b>     | (18.2) | <b>250</b>        | (13.2) | <b>236</b> | (14.8) |
| Unemployed               | 4.9            | (1.0) | 230            | (10.6) | 231               | (9.8)  | 202        | (11.9) |
| Not in labor force       | 6.9            | (1.5) | 215            | (7.5)  | 221               | (9.2)  | 198        | (9.2)  |

Note: Bold values indicate that the difference between the average score from Class 1 and the average score from Class 4 is statistically significant at 0.05 level.

TABLE 2.17

Demographical and social characteristics of adult learners and performance on the prose literacy scale, by the OVAE geographical regions

| Characteristics                                 | OVAE Regions |        |                |        |            |       |                |       |
|---|--------------|--------|----------------|--------|------------|-------|----------------|-------|
|   | Eastern      |        |                |        | Southern   |       |                |       |
|   | Percentage   |        | Prose literacy |        | Percentage |       | Prose literacy |       |
|   | %            | S.E.   | Mean score     | S.E.   | %          | S.E.  | Mean score     | S.E.  |
| Adult learners                                  | 13.6         | (1.8)  | 226            | (5.3)  | 39.4       | (3.8) | 224            | (4.0) |
| ESL learners                                    | 27.6         | (8.4)  | 192            | (8.8)  | 26.4       | (3.7) | 171            | (6.6) |
| ABE learners                                    | 50.3         | (14.8) | 235            | (4.1)  | 49.3       | (5.8) | 237            | (4.0) |
| ASE learners                                    | 22.0         | (12.2) | 245            | (3.6)  | 24.2       | (4.8) | 255            | (5.2) |
| Native learners                                 | 64.9         | (9.1)  | 240            | (2.6)  | 69.1       | (3.2) | 244            | (3.1) |
| Non-native learners                             | 35.1         | (9.1)  | 199            | (6.5)  | 30.8       | (3.2) | 180            | (5.8) |
| Learners with English as first home language    | 60.1         | (7.3)  | 239            | (3.3)  | 69.6       | (3.0) | 244            | (3.2) |
| Learners with Spanish as first home language    | 18.7         | (4.2)  | 210            | (10.1) | 21.6       | (1.6) | 184            | (5.7) |
| Hispanic learners                               | 31.5         | (0.2)  | 229            | (12.0) | 25.3       | (0.2) | 192            | (6.0) |
| Non-Hispanic learners                           | 39.5         | (6.1)  | 236            | (2.9)  | 72.0       | (1.3) | 236            | (4.1) |
| White learners                                  | 31.5         | (8.7)  | 216            | (8.9)  | 64.6       | (3.8) | 236            | (3.6) |
| Black or African American learners              | 38.7         | (5.7)  | 233            | (3.4)  | 25.0       | (3.2) | 216            | (4.5) |
| Asian learners                                  | 7.3          | (2.7)  | 207            | (16.9) | 5.1        | (1.6) | 169            | (8.0) |
| American Indian or Alaska Native learners       | 2.5          | (0.9)  | 218            | (11.2) | 5.3        | (0.8) | 230            | (6.9) |
| Learners who are employed                       | 47.1         | (7.9)  | 219            | (6.7)  | 49.2       | (3.7) | 224            | (4.9) |
| Learners who are unemployed or looking for work | 43.6         | (9.2)  | 232            | (5.1)  | 31.5       | (2.7) | 224            | (4.8) |
| Learners who repeated a grade                   | 49.4         | (7.3)  | 233            | (4.3)  | 43.8       | (2.3) | 224            | (3.6) |

| Characteristics                                 | OVAE Regions |        |                |        |            |       |                |        |
|---|--------------|--------|----------------|--------|------------|-------|----------------|--------|
|   | Midwestern   |        |                |        | Western    |       |                |        |
|   | Percentage   |        | Prose literacy |        | Percentage |       | Prose literacy |        |
|   | %            | S.E.   | Mean score     | S.E.   | %          | S.E.  | Mean score     | S.E.   |
| Adult learners                                  | 19.1         | (2.8)  | 228            | (12.4) | 27.9       | (4.2) | 204            | (7.0)  |
| ESL learners                                    | 27.8         | (9.2)  | 166            | (10.8) | 61.6       | (8.5) | 177            | (6.1)  |
| ABE learners                                    | 52.2         | (12.1) | 252            | (14.0) | 22.7       | (9.2) | 235            | (10.8) |
| ASE learners                                    | 20.0         | (8.7)  | 252            | (7.5)  | 15.7       | (5.3) | 265            | (5.1)  |
| Native learners                                 | 69.9         | (8.2)  | 254            | (9.3)  | 28.2       | (7.1) | 249            | (3.9)  |
| Non-native learners                             | 30.1         | (8.2)  | 168            | (10.7) | 71.6       | (7.0) | 187            | (4.8)  |
| Learners with English as first home language    | 69.3         | (8.0)  | 253            | (9.3)  | 24.1       | (6.7) | 250            | (3.6)  |
| Learners with Spanish as first home language    | 18.6         | (2.9)  | 189            | (12.4) | 52.5       | (1.3) | 194            | (4.9)  |
| Hispanic learners                               | 22.7         | (0.0)  | 199            | (12.1) | 58.4       | (0.0) | 200            | (4.6)  |
| Non-Hispanic learners                           | 76.8         | (0.5)  | 236            | (12.9) | 41.2       | (0.2) | 210            | (12.8) |
| White learners                                  | 60.9         | (7.6)  | 238            | (16.1) | 54.3       | (6.0) | 207            | (7.2)  |
| Black or African American learners              | 24.2         | (7.9)  | 234            | (6.4)  | 6.5        | (1.7) | 217            | (7.4)  |
| Asian learners                                  | 6.5          | (3.5)  | 237            | (11.0) | 16.8       | (4.9) | 183            | (11.2) |
| American Indian or Alaska Native learners       | 4.3          | (2.0)  | 232            | (11.4) | 8.9        | (3.1) | 243            | (9.6)  |
| Learners who are employed                       | 52.5         | (4.6)  | 234            | (14.0) | 50.0       | (4.6) | 213            | (7.5)  |
| Learners who are unemployed or looking for work | 34.1         | (6.2)  | 241            | (7.4)  | 31.8       | (3.4) | 225            | (3.7)  |
| Learners who repeated a grade                   | 36.2         | (5.8)  | 231            | (4.3)  | 24.3       | (2.5) | 205            | (8.7)  |

TABLE 2.18

## Performance of adult learners, by the OVAE geographical regions

| Scale                             | OVAE Regions |       |            |        |          |       |            |       |
|-----------------------------------|--------------|-------|------------|--------|----------|-------|------------|-------|
|                                   | Eastern      |       |            |        | Southern |       |            |       |
|                                   | %            | S.E.  | Mean score | S.E.   | %        | S.E.  | Mean score | S.E.  |
| <b>Prose literacy scale</b>       |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 226        | (5.3)  | n.a.     | n.a.  | 224        | (4.0) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 46.1         | (4.3) | 187        | (5.4)  | 46.0     | (3.0) | 176        | (3.6) |
| Level 2                           | 42.8         | (3.9) | 250        | (1.6)  | 37.3     | (1.8) | 250        | (1.0) |
| Level 3                           | 10.3         | (1.5) | 292        | (4.1)  | 15.0     | (2.0) | 294        | (1.4) |
| Level 4/5                         | 0.7          | (0.4) | 334        | (3.5)  | 1.4      | (0.3) | 341        | (2.5) |
| <b>Document literacy scale</b>    |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 233        | (4.9)  | n.a.     | n.a.  | 232        | (3.8) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 36.0         | (4.5) | 190        | (4.9)  | 41.4     | (3.5) | 184        | (2.8) |
| Level 2                           | 50.6         | (3.7) | 248        | (1.3)  | 38.6     | (1.8) | 250        | (1.0) |
| Level 3                           | 13.0         | (1.9) | 291        | (2.4)  | 18.3     | (2.2) | 295        | (1.0) |
| Level 4/5                         | 0.5          | (0.3) | 331        | (3.4)  | 1.7      | (0.4) | 340        | (4.9) |
| <b>Numeracy scale</b>             |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 203        | (3.7)  | n.a.     | n.a.  | 205        | (3.5) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 71.1         | (2.7) | 181        | (3.5)  | 65.5     | (2.9) | 175        | (2.4) |
| Level 2                           | 23.0         | (2.1) | 245        | (2.8)  | 26.2     | (2.0) | 249        | (1.4) |
| Level 3                           | 4.7          | (1.4) | 294        | (4.1)  | 8.0      | (1.3) | 293        | (1.8) |
| Level 4/5                         | 1.1          | (0.6) | 344        | (11.9) | 0.4      | (0.2) | 341        | (8.7) |
| Scale                             | OVAE Regions |       |            |        |          |       |            |       |
|                                   | Midwestern   |       |            |        | Western  |       |            |       |
|                                   | %            | S.E.  | Mean score | S.E.   | %        | S.E.  | Mean score | S.E.  |
| <b>Prose literacy scale</b>       |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 228        | (12.4) | n.a.     | n.a.  | 204        | (7.0) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 38.8         | (7.1) | 165        | (10.2) | 60.6     | (4.2) | 163        | (5.3) |
| Level 2                           | 40.1         | (4.7) | 251        | (1.7)  | 26.2     | (3.0) | 250        | (1.6) |
| Level 3                           | 19.0         | (6.2) | 296        | (2.3)  | 12.4     | (1.7) | 297        | (2.1) |
| Level 4/5                         | 2.1          | (1.4) | 340        | (1.8)  | 0.8      | (0.3) | 338        | (5.6) |
| <b>Document literacy scale</b>    |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 237        | (11.1) | n.a.     | n.a.  | 214        | (5.6) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 36.4         | (7.3) | 177        | (6.8)  | 57.8     | (4.7) | 177        | (3.5) |
| Level 2                           | 37.9         | (3.8) | 250        | (1.1)  | 28.9     | (3.5) | 249        | (1.6) |
| Level 3                           | 22.3         | (5.5) | 296        | (2.5)  | 12.6     | (1.7) | 294        | (0.9) |
| Level 4/5                         | 3.3          | (2.2) | 339        | (4.5)  | 0.6      | (0.3) | 337        | (5.6) |
| <b>Numeracy scale</b>             |              |       |            |        |          |       |            |       |
| Mean score                        | n.a.         | n.a.  | 211        | (11.2) | n.a.     | n.a.  | 197        | (4.7) |
| <b>Percentage by skill levels</b> |              |       |            |        |          |       |            |       |
| Level 1                           | 60.0         | (8.7) | 174        | (5.7)  | 69.3     | (2.8) | 170        | (3.4) |
| Level 2                           | 26.7         | (3.0) | 249        | (2.4)  | 24.2     | (2.5) | 248        | (2.2) |
| Level 3                           | 11.8         | (5.7) | 294        | (2.9)  | 6.0      | (1.0) | 294        | (2.2) |
| Level 4/5                         | 1.4          | (0.6) | 338        | (5.1)  | 0.4      | (0.2) | 338        | (4.0) |

n.a. not applicable

TABLE 2.19

## Characteristics of adult learners, by type of instruction

| Characteristics  | Instructional programs |       |                           |       |                              |       |
|--|------------------------|-------|---------------------------|-------|------------------------------|-------|
|  | Adult basic education  |       | Adult secondary education |       | English as a second language |       |
|  | %                      | S.E.  | %                         | S.E.  | %                            | S.E.  |
| Percent of learners participating in adult education programs in the United States during the program year from July 1, 2001 to June 30, 2002 by type of program | 42.5                   | (0.0) | 20.8                      | (0.0) | 36.6                         | (0.0) |
| <b>Gender:</b>   |                        |       |                           |       |                              |       |
| Male   | 51.7                   | (2.2) | 42.4                      | (3.3) | 43.7                         | (1.6) |
| Female   | 48.3                   | (2.2) | 57.6                      | (3.3) | 56.3                         | (1.6) |
| <b>Age:</b>  |                        |       |                           |       |                              |       |
| Ages of 16 and 25  | 44.5                   | (4.7) | 61.2                      | (4.3) | 16.9                         | (1.1) |
| Ages of 26 and 35  | 23.6                   | (2.3) | 13.6                      | (2.0) | 32.9                         | (1.4) |
| Ages of 36 and 45  | 16.9                   | (1.9) | 12.2                      | (1.7) | 26.2                         | (2.7) |
| Ages of 46 and 55  | 10.3                   | (1.9) | 7.7                       | (1.9) | 14.0                         | (1.1) |
| Ages of 56 and 65  | 3.5                    | (0.7) | 2.4                       | (0.9) | 6.4                          | (1.0) |
| Ages over 65   | 1.1                    | (0.5) | 2.8                       | (1.2) | 3.2                          | (0.8) |
| <b>Place of birth:</b>   |                        |       |                           |       |                              |       |
| Native   | 90.2                   | (1.5) | 88.2                      | (1.8) | 1.2                          | (0.3) |
| Non-native   | 9.7                    | (1.5) | 11.8                      | (1.8) | 98.5                         | (0.3) |
| <b>Ethnicity:</b>  |                        |       |                           |       |                              |       |
| Hispanic   | 17.9                   | (0.0) | 17.5                      | (0.0) | 65.1                         | (0.1) |
| White  | 49.3                   | (3.4) | 57.4                      | (4.2) | 55.7                         | (3.3) |
| Black  | 34.4                   | (2.9) | 23.3                      | (4.1) | 4.4                          | (1.3) |
| Asian  | 1.0                    | (0.5) | 2.2                       | (0.9) | 21.7                         | (2.1) |
| Other  | 6.6                    | (1.7) | 10.6                      | (1.8) | 3.7                          | (1.3) |
| <b>Mother tongue:</b>  |                        |       |                           |       |                              |       |
| English  | 88.2                   | (1.3) | 84.9                      | (2.2) | 0.9                          | (0.5) |
| Spanish  | 8.5                    | (0.9) | 10.6                      | (1.7) | 64.1                         | (0.6) |
| An European language   | 1.0                    | (0.4) | 0.4                       | (0.2) | 3.5                          | (1.0) |
| An Asian language  | 0.4                    | (0.2) | 1.5                       | (0.8) | 17.4                         | (2.4) |
| <b>Reported a limited capacity to:</b>   |                        |       |                           |       |                              |       |
| <b>Understand spoken English</b>   |                        |       |                           |       |                              |       |
| Not well   | 1.6                    | (0.4) | 0.4                       | (0.2) | 56.1                         | (1.9) |
| Not at all   | 0.3                    | (0.3) | 0.0                       | (0.0) | 2.3                          | (0.5) |
| <b>Speak English</b>   |                        |       |                           |       |                              |       |
| Not well   | 3.6                    | (0.9) | 1.0                       | (0.4) | 70.7                         | (2.1) |
| Not at all   | 0.1                    | (0.1) | 0.0                       | (0.0) | 3.8                          | (0.4) |
| <b>Read English</b>  |                        |       |                           |       |                              |       |
| Not well   | 5.7                    | (0.9) | 3.1                       | (1.5) | 52.7                         | (1.7) |
| Not at all   | 0.4                    | (0.2) | 0.0                       | (0.0) | 3.2                          | (0.7) |
| <b>Write English</b>   |                        |       |                           |       |                              |       |
| Not well   | 10.1                   | (1.4) | 6.7                       | (1.9) | 62.6                         | (2.6) |
| Not at all   | 0.5                    | (0.2) | 0.0                       | (0.0) | 7.0                          | (0.8) |
| <b>Reason for taking adult education classes:</b>  |                        |       |                           |       |                              |       |
| Obtain a better job  | 35.8                   | (2.9) | 30.2                      | (5.1) | 47.9                         | (2.1) |
| Required for my current job  | 4.2                    | (1.2) | 4.5                       | (2.0) | 13.0                         | (1.6) |
| To obtain a high school diploma of GED   | 61.6                   | (5.7) | 64.7                      | (4.6) | 12.9                         | (1.6) |
| To further my education  | 32.3                   | (3.3) | 27.0                      | (4.5) | 35.5                         | (3.2) |
| To help your children with their homework  | 10.0                   | (1.2) | 5.6                       | (1.9) | 19.6                         | (1.3) |
| Other reasons  | 22.0                   | (3.2) | 27.5                      | (5.7) | 46.3                         | (3.8) |

TABLE 2.19 (CONCLUDED)

## Characteristics of adult learners by type of instruction

| Characteristics   | Instructional programs |       |                           |       |                              |       |
|---|------------------------|-------|---------------------------|-------|------------------------------|-------|
|   | Adult basic education  |       | Adult secondary education |       | English as a second language |       |
|   | %                      | S.E.  | %                         | S.E.  | %                            | S.E.  |
| <b>Educational history</b>  |                        |       |                           |       |                              |       |
| Repeated a grade  | 51.6                   | (3.5) | 39.4                      | (3.9) | 20.7                         | (0.9) |
| Had problems when first learning to read  | 38.6                   | (3.5) | 38.6                      | (2.7) | 13.0                         | (1.1) |
| Had problems when first learning math   | 50.3                   | (2.3) | 46.8                      | (1.9) | 23.9                         | (1.5) |
| Reported having a learning disability   | 21.9                   | (2.7) | 18.0                      | (2.7) | 3.0                          | (0.5) |
| Reported having other mental or physical problems   | 18.5                   | (2.1) | 23.4                      | (3.0) | 5.9                          | (0.6) |
| Had studied or practiced on their own to improve reading, writing or math skills or studied for a GED | 70.8                   | (2.6) | 69.7                      | (2.9) | 54.9                         | (2.5) |
| Had studied on their own through a workbook or textbook   | 61.0                   | (2.5) | 59.7                      | (3.4) | 42.6                         | (2.3) |
| <b>Employment</b>   |                        |       |                           |       |                              |       |
| Employed or self-employed   | 46.0                   | (3.7) | 42.4                      | (3.7) | 58.3                         | (3.1) |
| Unemployed or looking for work  | 38.8                   | (4.2) | 47.6                      | (4.1) | 19.8                         | (1.7) |
| Homemakers  | 16.2                   | (2.2) | 21.9                      | (4.0) | 27.4                         | (2.2) |
| Retired   | 1.9                    | (0.8) | 2.0                       | (1.3) | 3.4                          | (0.9) |
| <b>Sources of income</b>  |                        |       |                           |       |                              |       |
| Wages or salaries   | 67.1                   | (3.3) | 67.1                      | (2.5) | 61.1                         | (3.6) |
| Self-employment   | 12.9                   | (1.7) | 13.4                      | (2.1) | 7.9                          | (0.9) |
| Social security payments  | 7.9                    | (1.1) | 8.7                       | (2.3) | 5.9                          | (1.0) |
| <b>Reading practices</b>  |                        |       |                           |       |                              |       |
| Never used a library  | 35.5                   | (3.5) | 33.1                      | (2.3) | 39.4                         | (1.5) |
| Never visited a bookstore   | 40.6                   | (3.4) | 31.8                      | (2.7) | 37.6                         | (1.5) |
| Never read a newspaper  | 7.3                    | (1.2) | 7.7                       | (1.7) | 24.8                         | (1.5) |
| Rarely read a newspaper   | 14.3                   | (1.1) | 18.4                      | (1.6) | 19.3                         | (1.4) |
| Spends 1 hour or less per day watching television or videos   | 27.9                   | (2.1) | 20.6                      | (2.6) | 34.7                         | (1.4) |
| Spend over 1 hour to 2 hours a day watching TV or videos  | 24.8                   | (1.9) | 24.9                      | (5.3) | 37.5                         | (1.4) |
| <b>Computer Use</b>   |                        |       |                           |       |                              |       |
| Use a computer at home  | 50.5                   | (3.8) | 61.0                      | (3.4) | 42.3                         | (2.0) |
| Use a computer at work  | 17.8                   | (2.3) | 22.3                      | (2.6) | 14.5                         | (1.6) |
| <b>General health</b>   |                        |       |                           |       |                              |       |
| Excellent health  | 28.0                   | (2.3) | 22.6                      | (2.4) | 29.3                         | (1.3) |
| Very good health  | 31.4                   | (2.0) | 29.5                      | (2.1) | 29.0                         | (1.5) |
| Extremely satisfied with their lives over the past 12 months  | 11.9                   | (1.0) | 13.0                      | (1.5) | 12.7                         | (1.0) |
| Satisfied with their lives over the past 12 months  | 51.0                   | (2.0) | 51.4                      | (2.4) | 66.7                         | (1.6) |

TABLE 2.20

Characteristics of adult learners by skill level on the prose literacy scale

| Characteristics  | Skill levels |       |         |       |         |       |           |        |
|--|--------------|-------|---------|-------|---------|-------|-----------|--------|
|  | Level 1      |       | Level 2 |       | Level 3 |       | Level 4/5 |        |
|  | %            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.   |
| Percent of learners participating in adult education programs in the United States during the program year from July 1, 2001 to June 30, 2002 by type of program | 48.8         | (1.3) | 35.5    | (1.0) | 14.3    | (1.4) | 1.3       | (0.3)  |
| <b>Type of instruction</b>   |              |       |         |       |         |       |           |        |
| Adult basic education  | 30.9         | (1.8) | 56.2    | (1.4) | 48.1    | (5.1) | 45.2      | (13.5) |
| Adult secondary education  | 10.0         | (1.2) | 26.5    | (1.1) | 41.0    | (4.4) | 45.1      | (11.0) |
| English as a second language   | 59.0         | (1.5) | 17.3    | (1.2) | 10.8    | (1.6) | 9.6       | (3.6)  |
| <b>Gender:</b>   |              |       |         |       |         |       |           |        |
| Male   | 47.0         | (1.3) | 47.5    | (1.5) | 46.3    | (2.0) | 30.7      | (4.3)  |
| Female   | 53.0         | (1.3) | 52.5    | (1.5) | 53.7    | (2.0) | 69.3      | (4.3)  |
| <b>Age:</b>  |              |       |         |       |         |       |           |        |
| Ages of 16 and 25  | 28.1         | (1.8) | 46.3    | (3.7) | 50.1    | (4.8) | 38.9      | (7.9)  |
| Ages of 26 and 35  | 27.7         | (1.1) | 22.9    | (1.8) | 21.5    | (3.3) | 17.5      | (3.6)  |
| Ages of 36 and 45  | 21.8         | (1.6) | 17.5    | (1.8) | 16.3    | (2.0) | 13.4      | (7.6)  |
| Ages of 46 and 55  | 12.5         | (1.1) | 9.9     | (1.5) | 8.6     | (2.2) | 20.2      | (6.2)  |
| Ages of 56 and 65  | 6.5          | (0.8) | 2.4     | (0.4) | 1.9     | (0.8) | 2.4       | (1.9)  |
| Ages over 65   | 3.1          | (0.6) | 1.0     | (0.5) | 1.6     | (1.3) | 7.7       | (6.7)  |
| <b>Place of Birth:</b>   |              |       |         |       |         |       |           |        |
| Native   | 35.3         | (1.4) | 76.8    | (1.1) | 81.0    | (2.7) | 83.1      | (6.0)  |
| Non-native   | 64.5         | (1.4) | 23.2    | (1.1) | 19.0    | (2.7) | 16.9      | (6.0)  |
| <b>Age when first learned English</b>  |              |       |         |       |         |       |           |        |
| Before age 10  | 8.3          | (0.8) | 15.1    | (1.7) | 30.5    | (6.4) | 16.6      | (11.0) |
| Between ages 11 and 18   | 33.4         | (1.8) | 39.6    | (2.6) | 39.8    | (3.7) | 49.1      | (11.9) |
| Older than 18  | 51.1         | (2.1) | 34.8    | (2.6) | 19.0    | (6.1) | 9.2       | (7.8)  |
| <b>Ethnicity:</b>  |              |       |         |       |         |       |           |        |
| Hispanic   | 45.9         | (1.1) | 25.7    | (1.1) | 21.7    | (2.5) | 25.0      | (8.0)  |
| White  | 48.3         | (2.3) | 53.7    | (1.9) | 67.2    | (3.9) | 79.0      | (8.1)  |
| Black  | 20.4         | (1.1) | 25.9    | (1.4) | 12.8    | (2.3) | 9.2       | (5.6)  |
| Asian  | 13.7         | (1.4) | 3.7     | (0.6) | 5.5     | (1.3) | 4.1       | (2.0)  |
| Other  | 5.3          | (0.8) | 7.6     | (1.3) | 6.9     | (1.9) | 5.9       | (4.4)  |
| <b>Mother tongue:</b>  |              |       |         |       |         |       |           |        |
| English  | 33.8         | (1.5) | 74.7    | (1.5) | 79.1    | (3.0) | 86.0      | (5.5)  |
| Spanish  | 42.1         | (1.2) | 18.5    | (1.4) | 14.4    | (2.5) | 8.2       | (3.9)  |
| An European language   | 2.5          | (0.7) | 1.3     | (0.4) | 0.7     | (0.2) | 1.1       | (0.8)  |
| An Asian language  | 10.4         | (1.7) | 2.9     | (0.5) | 4.7     | (1.2) | 4.1       | (2.0)  |
| <b>Reported a limited capacity to:</b>   |              |       |         |       |         |       |           |        |
| <b>Understand spoken English</b>   |              |       |         |       |         |       |           |        |
| Not well   | 37.8         | (1.3) | 6.9     | (0.5) | 2.8     | (0.8) | 0.8       | (0.5)  |
| Not at all   | 1.8          | (0.3) | 0.2     | (0.2) | 0.2     | (0.1) | 0.0       | (0.0)  |
| <b>Speak English</b>   |              |       |         |       |         |       |           |        |
| Not well   | 46.1         | (1.8) | 11.5    | (0.8) | 7.3     | (1.7) | 2.6       | (1.9)  |
| Not at all   | 2.8          | (0.3) | 0.2     | (0.1) | 0.1     | (0.1) | 0.0       | (0.0)  |
| <b>Read English</b>  |              |       |         |       |         |       |           |        |
| Not well   | 40.1         | (1.4) | 6.8     | (0.8) | 2.7     | (1.2) | 0.0       | (0.0)  |
| Not at all   | 2.6          | (0.5) | 0.1     | (0.1) | 0.1     | (0.1) | 0.0       | (0.0)  |
| <b>Write English</b>   |              |       |         |       |         |       |           |        |
| Not well   | 45.6         | (2.1) | 14.4    | (1.1) | 9.1     | (1.6) | 4.8       | (1.4)  |
| Not at all   | 5.4          | (0.7) | 0.4     | (0.1) | 0.1     | (0.1) | 0.0       | (0.0)  |

TABLE 2.20 (CONCLUDED)

## Characteristics of adult learners by skill level on the prose literacy scale

| Characteristics   | Skill levels |       |         |       |         |       |           |        |
|---|--------------|-------|---------|-------|---------|-------|-----------|--------|
|   | Level 1      |       | Level 2 |       | Level 3 |       | Level 4/5 |        |
|   | %            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.   |
| <b>Reason for taking adult education classes:</b>   |              |       |         |       |         |       |           |        |
| Obtain a better job   | 40.8         | (1.9) | 39.8    | (2.3) | 33.2    | (3.3) | 21.1      | (5.6)  |
| Required for my current job   | 9.5          | (1.1) | 5.3     | (1.3) | 5.4     | (1.9) | 15.1      | (9.1)  |
| To obtain a high school diploma of GED  | 33.8         | (2.1) | 55.0    | (3.4) | 55.4    | (6.1) | 32.4      | (7.0)  |
| To further my education   | 31.9         | (2.7) | 31.7    | (2.7) | 36.0    | (2.7) | 29.6      | (6.9)  |
| To help your children with their homework   | 15.1         | (0.9) | 11.7    | (1.3) | 6.7     | (1.3) | 6.1       | (1.3)  |
| Other reasons   | 38.2         | (3.2) | 26.3    | (2.6) | 25.5    | (3.8) | 31.9      | (7.2)  |
| <b>Educational history</b>  |              |       |         |       |         |       |           |        |
| Repeated a grade  | 35.8         | (1.4) | 43.3    | (2.4) | 33.2    | (3.5) | 14.3      | (4.5)  |
| Had problems when first learning to read  | 30.5         | (1.6) | 30.3    | (2.3) | 22.4    | (2.7) | 25.8      | (7.8)  |
| Had problems when first learning math   | 37.2         | (1.6) | 42.2    | (1.7) | 41.9    | (2.2) | 54.3      | (8.2)  |
| Reported having a learning disability   | 16.0         | (1.4) | 14.7    | (1.9) | 7.1     | (1.5) | 8.2       | (3.9)  |
| Reported having other mental or physical problems   | 13.4         | (1.1) | 15.7    | (1.5) | 17.4    | (3.3) | 25.7      | (7.4)  |
| Had studied or practiced on their own to improve reading, writing or math skills or studied for a GED | 59.1         | (1.7) | 72.0    | (2.4) | 66.1    | (3.2) | 64.4      | (6.5)  |
| Through a workbook  | 47.3         | (1.5) | 62.7    | (2.4) | 56.2    | (3.3) | 42.8      | (7.1)  |
| <b>Employment</b>   |              |       |         |       |         |       |           |        |
| Employed or self-employed   | 52.6         | (2.7) | 47.4    | (2.9) | 45.3    | (3.6) | 55.8      | (9.3)  |
| Unemployed or looking for work  | 30.6         | (1.7) | 36.6    | (3.2) | 37.9    | (2.8) | 24.7      | (8.4)  |
| Homemakers  | 22.7         | (1.8) | 18.8    | (1.5) | 23.6    | (2.4) | 26.4      | (8.9)  |
| Retired   | 3.3          | (0.8) | 1.5     | (0.6) | 1.6     | (1.3) | 7.8       | (6.7)  |
| <b>Sources of income</b>  |              |       |         |       |         |       |           |        |
| Wages or salaries   | 61.8         | (3.1) | 67.4    | (2.9) | 67.9    | (2.7) | 81.2      | (4.2)  |
| Self-employment   | 10.7         | (1.4) | 11.6    | (1.0) | 12.4    | (2.0) | 5.6       | (2.0)  |
| Interest and dividends  | 4.1          | (0.6) | 5.5     | (1.0) | 8.2     | (2.1) | 14.2      | (3.6)  |
| Social security payments  | 9.4          | (1.1) | 5.5     | (1.0) | 4.5     | (1.6) | 10.4      | (7.0)  |
| Employment Insurance Benefits   | 7.3          | (1.1) | 8.7     | (1.3) | 11.5    | (2.3) | 5.3       | (1.3)  |
| <b>Reading practices</b>  |              |       |         |       |         |       |           |        |
| Never used a library  | 43.4         | (1.4) | 31.3    | (2.2) | 26.7    | (3.0) | 24.8      | (5.0)  |
| Never visited a bookstore   | 44.9         | (1.4) | 34.9    | (2.5) | 22.3    | (2.2) | 10.1      | (2.6)  |
| Never read a newspaper  | 17.8         | (1.2) | 6.0     | (0.8) | 6.9     | (1.5) | 0.5       | (0.3)  |
| Rarely read a newspaper   | 22.5         | (1.2) | 15.1    | (1.1) | 17.3    | (2.1) | 13.5      | (4.7)  |
| Spent 1 hour or less per day watching television or videos  | 32.2         | (1.0) | 26.1    | (1.9) | 25.4    | (2.3) | 20.2      | (6.2)  |
| Spent over 1 hour to 2 hours a day watching TV or videos  | 31.5         | (1.6) | 26.2    | (1.5) | 29.9    | (2.3) | 37.4      | (10.5) |
| <b>Computer use</b>   |              |       |         |       |         |       |           |        |
| Use a computer at home  | 39.6         | (1.8) | 58.7    | (2.8) | 59.9    | (3.2) | 65.0      | (6.2)  |
| Use a computer at work  | 14.0         | (1.6) | 19.0    | (1.5) | 22.5    | (2.0) | 50.0      | (8.5)  |
| <b>General health</b>   |              |       |         |       |         |       |           |        |
| Excellent health  | 28.1         | (1.3) | 25.5    | (2.2) | 29.0    | (3.2) | 32.9      | (10.2) |
| Very good health  | 26.5         | (1.4) | 34.5    | (1.7) | 32.3    | (3.3) | 24.0      | (5.1)  |
| Extremely satisfied with their lives over the past 12 months  | 12.6         | (0.9) | 12.5    | (0.9) | 10.7    | (1.2) | 21.4      | (8.4)  |
| Satisfied with their lives over the past 12 months  | 62.2         | (1.5) | 52.0    | (1.5) | 51.7    | (3.3) | 44.3      | (11.4) |





# Appendix B3

## Chapter 3 Tables

### Table of Contents

|           |  |     |
|-----------|--|-----|
| Table 3.1 | Skills on the prose literacy, document literacy and numeracy scales among adults and adult learners, AEPS and ALL      | 279 |
| Table 3.2 | Gender and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL                           | 280 |
| Table 3.3 | Age and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL                              | 281 |
| Table 3.4 | Race/ethnicity and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL                   | 283 |
| Table 3.5 | Place of birth and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL                   | 284 |
| Table 3.6 | Mother tongue and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL                    | 285 |
| Table 3.7 | Mother tongue and skills on the prose literacy, document literacy and numeracy scales, by place of birth, AEPS and ALL | 286 |

## Table of Contents

|            |   |     |
|------------|---|-----|
| Table 3.8  | Highest level of education and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL  | 287 |
| Table 3.9  | Educational level and skills on the prose literacy, document literacy and numeracy scales, by place of birth, AEPS and ALL  | 289 |
| Table 3.10 | Latent class analysis for adults based on reading engagement, ALL population  | 290 |
| Table 3.11 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement, ALL population | 292 |
| Table 3.12 | Latent class analysis for adults based on wealth, ALL population  | 296 |
| Table 3.13 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth, ALL population             | 297 |
| Table 3.14 | Latent class analysis for adults based on health, ALL population  | 300 |
| Table 3.15 | Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health, ALL population             | 304 |

TABLE 3.1

**Skills on the prose literacy, document literacy and numeracy scales  
among adults and adult learners, AEPS and ALL**

| Scale                               | Percentiles   |       |         |       |         |       |           |       |       |       |       |       |       |
|-------------------------------------|---------------|-------|---------|-------|---------|-------|-----------|-------|-------|-------|-------|-------|-------|
|                                     | Overall       |       |         | 10th  |         | 25th  |           | 50th  |       | 75th  |       | 90th  |       |
|                                     | Mean<br>Score | S.E.  | S.D.    | Score | S.E.    | Score | S.E.      | Score | S.E.  | Score | S.E.  | Score | S.E.  |
| <b>Prose literacy scale</b>         |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 219           | (1.9) | 60.3    | 134   | (4.3)   | 186   | (3.4)     | 229   | (1.8) | 262   | (2.5) | 290   | (5.5) |
| ALL                                 | 269           | (1.3) | 51.9    | 200   | (2.1)   | 235   | (1.1)     | 272   | (2.4) | 306   | (2.7) | 332   | (1.4) |
| <b>Document literacy scale</b>      |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 228           | (1.9) | 52.5    | 153   | (3.2)   | 196   | (2.6)     | 232   | (1.8) | 268   | (3.6) | 292   | (2.9) |
| ALL                                 | 270           | (1.5) | 53.9    | 199   | (1.5)   | 236   | (1.8)     | 273   | (1.6) | 308   | (2.2) | 337   | (1.6) |
| <b>Numeracy scale</b>               |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 203           | (2.1) | 53.6    | 134   | (2.3)   | 170   | (2.7)     | 205   | (1.9) | 238   | (3.7) | 272   | (3.7) |
| ALL                                 | 261           | (1.4) | 57.5    | 186   | (2.6)   | 223   | (2.4)     | 264   | (1.1) | 302   | (2.1) | 334   | (2.6) |
| <b>Distribution by skill levels</b> |               |       |         |       |         |       |           |       |       |       |       |       |       |
| Scales                              | Level 1       |       | Level 2 |       | Level 3 |       | Level 4/5 |       |       |       |       |       |       |
|                                     | %             | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |       |       |       |       |       |
| <b>Prose literacy scale</b>         |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 48.8          | (1.3) | 35.5    | (1.0) | 14.3    | (1.4) | 1.3       | (0.3) |       |       |       |       |       |
| ALL                                 | 20.0          | (0.8) | 32.6    | (1.1) | 34.6    | (1.2) | 12.8      | (1.0) |       |       |       |       |       |
| <b>Document literacy scale</b>      |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 44.3          | (1.5) | 37.4    | (1.0) | 16.7    | (1.3) | 1.5       | (0.4) |       |       |       |       |       |
| ALL                                 | 20.2          | (1.0) | 32.3    | (1.4) | 32.6    | (1.1) | 15.0      | (1.0) |       |       |       |       |       |
| <b>Numeracy scale</b>               |               |       |         |       |         |       |           |       |       |       |       |       |       |
| AEPS                                | 66.4          | (1.8) | 25.3    | (0.9) | 7.7     | (1.1) | 0.7       | (0.1) |       |       |       |       |       |
| ALL                                 | 26.8          | (0.9) | 31.8    | (1.1) | 28.8    | (1.0) | 12.7      | (1.1) |       |       |       |       |       |

TABLE 3.2

Gender and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and gender                    | Overall    |       |         | Percentiles |         |       |           |       |       |       |       |       |       |
|-------------------------------------|------------|-------|---------|-------------|---------|-------|-----------|-------|-------|-------|-------|-------|-------|
|                                     | Mean Score | S.E.  | S.D.    | 10th        |         | 25th  |           | 50th  |       | 75th  |       | 90th  |       |
|                                     |            |       |         | Score       | S.E.    | Score | S.E.      | Score | S.E.  | Score | S.E.  | Score | S.E.  |
| <b>Prose literacy scale</b>         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 219        | (2.6) | 59.5    | 137         | (2.9)   | 186   | (6.9)     | 228   | (2.1) | 260   | (3.2) | 285   | (5.1) |
| Female                              | 220        | (2.1) | 60.9    | 132         | (3.4)   | 185   | (3.9)     | 230   | (2.3) | 264   | (2.2) | 295   | (3.8) |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 266        | (1.8) | 53.1    | 195         | (1.8)   | 232   | (1.9)     | 268   | (2.8) | 304   | (3.9) | 330   | (2.9) |
| Female                              | 271        | (1.6) | 50.5    | 204         | (3.0)   | 239   | (2.5)     | 275   | (1.2) | 308   | (2.6) | 334   | (1.7) |
| <b>Document literacy scale</b>      |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 229        | (2.2) | 51.3    | 154         | (4.2)   | 197   | (5.6)     | 233   | (3.4) | 268   | (4.9) | 290   | (5.1) |
| Female                              | 228        | (2.3) | 53.4    | 151         | (3.1)   | 196   | (2.4)     | 232   | (2.0) | 267   | (3.5) | 294   | (3.0) |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 272        | (2.1) | 55.7    | 199         | (4.3)   | 237   | (2.6)     | 275   | (2.5) | 311   | (2.5) | 341   | (1.3) |
| Female                              | 268        | (1.6) | 52.2    | 199         | (2.9)   | 236   | (1.6)     | 271   | (3.2) | 304   | (2.3) | 333   | (2.4) |
| <b>Numeracy scale</b>               |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 205        | (2.3) | 53.0    | 137         | (4.9)   | 173   | (1.8)     | 208   | (3.0) | 240   | (2.7) | 274   | (2.5) |
| Female                              | 202        | (2.4) | 54.0    | 133         | (3.0)   | 166   | (2.9)     | 202   | (2.6) | 236   | (3.2) | 270   | (5.2) |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                | 270        | (1.8) | 58.5    | 193         | (3.6)   | 232   | (3.1)     | 272   | (3.9) | 312   | (3.2) | 343   | (2.5) |
| Female                              | 254        | (1.9) | 55.3    | 180         | (2.8)   | 216   | (2.4)     | 256   | (1.8) | 293   | (1.9) | 323   | (2.5) |
| <b>Distribution by skill levels</b> |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Scale and gender                    | Level 1    |       | Level 2 |             | Level 3 |       | Level 4/5 |       |       |       |       |       |       |
|                                     | %          | S.E.  | %       | S.E.        | %       | S.E.  | %         | S.E.  |       |       |       |       |       |
| <b>Prose literacy scale</b>         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 49.0    | (2.2)       | 36.0    | (1.8) | 14.2      | (1.5) | 0.9   | (0.3) |       |       |       |
| Female                              |            |       | 48.7    | (1.4)       | 35.1    | (1.2) | 14.5      | (1.5) | 1.8   | (0.4) |       |       |       |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 21.0    | (1.0)       | 33.0    | (2.0) | 34.0      | (1.0) | 12.0  | (1.0) |       |       |       |
| Female                              |            |       | 19.0    | (1.0)       | 32.0    | (2.0) | 36.0      | (2.0) | 14.0  | (1.0) |       |       |       |
| <b>Document literacy scale</b>      |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 42.9    | (2.2)       | 38.9    | (1.7) | 17.2      | (1.5) | 0.9   | (0.2) |       |       |       |
| Female                              |            |       | 45.6    | (1.6)       | 36.2    | (1.2) | 16.2      | (1.4) | 2.1   | (0.6) |       |       |       |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 20.0    | (1.0)       | 31.0    | (2.0) | 32.0      | (1.0) | 17.0  | (2.0) |       |       |       |
| Female                              |            |       | 20.0    | (1.0)       | 34.0    | (2.0) | 33.0      | (2.0) | 13.0  | (1.0) |       |       |       |
| <b>Numeracy scale</b>               |            |       |         |             |         |       |           |       |       |       |       |       |       |
| <b>AEPS</b>                         |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 64.6    | (2.0)       | 27.0    | (1.5) | 8.0       | (1.2) | 0.4   | (0.1) |       |       |       |
| Female                              |            |       | 67.9    | (2.0)       | 23.8    | (1.1) | 7.3       | (1.2) | 1.0   | (0.3) |       |       |       |
| <b>ALL</b>                          |            |       |         |             |         |       |           |       |       |       |       |       |       |
| Male                                |            |       | 23.0    | (1.0)       | 29.0    | (2.0) | 31.0      | (1.0) | 17.0  | (1.0) |       |       |       |
| Female                              |            |       | 30.0    | (2.0)       | 34.0    | (2.0) | 27.0      | (2.0) | 9.0   | (1.3) |       |       |       |

TABLE 3.3

## Age and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and age                  | Percentiles |       |            |       |       |        |       |       |       |        |       |        |       |        |
|--------------------------------|-------------|-------|------------|-------|-------|--------|-------|-------|-------|--------|-------|--------|-------|--------|
|                                | Overall     |       |            |       | 10th  |        | 25th  |       | 50th  |        | 75th  |        | 90th  |        |
|                                | %           | S.E.  | Mean score | S.E.  | Score | S.E.   | Score | S.E.  | Score | S.E.   | Score | S.E.   | Score | S.E.   |
| <b>Prose literacy scale</b>    |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 37.9        | (2.5) | 236        | (2.7) | 167   | (4.7)  | 212   | (3.3) | 242   | (2.2)  | 270   | (3.4)  | 299   | (1.3)  |
| 26 to 35                       | 25.0        | (1.2) | 215        | (3.4) | 130   | (4.8)  | 178   | (8.1) | 219   | (4.9)  | 253   | (3.2)  | 285   | (5.8)  |
| 36 to 45                       | 19.3        | (1.3) | 212        | (3.3) | 126   | (9.2)  | 176   | (5.2) | 219   | (4.1)  | 254   | (8.8)  | 282   | (7.3)  |
| 46 to 55                       | 11.1        | (1.0) | 210        | (6.0) | 116   | (5.3)  | 171   | (7.9) | 217   | (11.0) | 258   | (5.8)  | 287   | (11.3) |
| 56 to 65                       | 4.3         | (0.6) | 183        | (7.2) | 90    | (21.7) | 137   | (5.1) | 193   | (5.1)  | 235   | (10.5) | 267   | (9.6)  |
| <b>ALL</b>                     |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 21.0        | (0.0) | 270        | (2.8) | 209   | (5.0)  | 240   | (3.4) | 271   | (4.3)  | 304   | (7.4)  | 331   | (3.9)  |
| 26 to 35                       | 20.9        | (0.0) | 269        | (2.2) | 193   | (7.7)  | 236   | (3.8) | 275   | (4.7)  | 207   | (2.8)  | 335   | (4.3)  |
| 36 to 45                       | 23.5        | (0.0) | 271        | (2.8) | 202   | (3.2)  | 237   | (2.8) | 274   | (4.3)  | 308   | (2.4)  | 335   | (4.0)  |
| 46 to 55                       | 21.0        | (0.5) | 270        | (2.7) | 199   | (6.8)  | 236   | (2.6) | 277   | (2.8)  | 309   | (8.5)  | 332   | (3.9)  |
| 56 to 65                       | 13.7        | (0.5) | 260        | (2.9) | 193   | (8.8)  | 226   | (4.0) | 261   | (5.2)  | 297   | (4.5)  | 327   | (4.8)  |
| <b>Document literacy scale</b> |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 37.9        | (2.5) | 244        | (2.4) | 179   | (5.0)  | 219   | (3.8) | 248   | (2.8)  | 278   | (1.9)  | 299   | (3.0)  |
| 26 to 35                       | 25.0        | (1.2) | 225        | (2.9) | 154   | (2.4)  | 192   | (4.8) | 227   | (2.8)  | 263   | (5.6)  | 290   | (5.2)  |
| 36 to 45                       | 19.3        | (1.3) | 217        | (3.1) | 144   | (6.0)  | 186   | (1.4) | 219   | (1.7)  | 254   | (2.8)  | 281   | (5.3)  |
| 46 to 55                       | 11.1        | (1.0) | 220        | (5.1) | 141   | (3.8)  | 181   | (1.4) | 224   | (6.7)  | 255   | (4.4)  | 293   | (4.2)  |
| 56 to 65                       | 4.3         | (0.6) | 198        | (5.8) | 124   | (5.9)  | 159   | (3.7) | 203   | (3.6)  | 236   | (8.6)  | 272   | (10.2) |
| <b>ALL</b>                     |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 21.0        | (0.0) | 275        | (2.4) | 209   | (6.1)  | 245   | (2.9) | 276   | (2.6)  | 311   | (2.3)  | 338   | (4.4)  |
| 26 to 35                       | 20.9        | (0.0) | 274        | (2.4) | 198   | (7.8)  | 239   | (4.1) | 277   | (2.9)  | 313   | (2.2)  | 342   | (7.3)  |
| 36 to 45                       | 23.5        | (0.0) | 272        | (3.0) | 203   | (5.1)  | 235   | (4.4) | 275   | (3.1)  | 311   | (3.1)  | 339   | (3.7)  |
| 46 to 55                       | 21.0        | (0.5) | 268        | (2.7) | 194   | (9.3)  | 235   | (4.4) | 273   | (6.1)  | 308   | (4.0)  | 335   | (2.1)  |
| 56 to 65                       | 13.7        | (0.5) | 255        | (3.0) | 186   | (6.2)  | 220   | (2.8) | 255   | (4.4)  | 292   | (4.8)  | 323   | (4.0)  |
| <b>Numeracy scale</b>          |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 37.9        | (2.5) | 212        | (2.5) | 143   | (2.5)  | 181   | (1.7) | 213   | (2.7)  | 244   | (2.8)  | 276   | (4.4)  |
| 26 to 35                       | 25.0        | (1.2) | 201        | (3.0) | 138   | (2.7)  | 168   | (2.8) | 198   | (2.7)  | 231   | (2.7)  | 264   | (6.2)  |
| 36 to 45                       | 19.3        | (1.3) | 200        | (2.8) | 129   | (9.3)  | 166   | (4.1) | 200   | (5.4)  | 235   | (2.4)  | 265   | (7.9)  |
| 46 to 55                       | 11.1        | (1.0) | 201        | (5.4) | 122   | (4.3)  | 159   | (3.9) | 203   | (4.8)  | 242   | (10.4) | 277   | (13.2) |
| 56 to 65                       | 4.3         | (0.6) | 182        | (6.4) | 107   | (13.4) | 143   | (5.9) | 186   | (3.7)  | 216   | (9.4)  | 261   | (17.8) |
| <b>ALL</b>                     |             |       |            |       |       |        |       |       |       |        |       |        |       |        |
| 16 to 25                       | 21.0        | (0.0) | 264        | (3.7) | 192   | (5.5)  | 225   | (4.5) | 264   | (4.7)  | 304   | (5.1)  | 334   | (3.1)  |
| 26 to 35                       | 20.9        | (0.0) | 264        | (2.2) | 183   | (7.1)  | 226   | (4.3) | 267   | (3.8)  | 306   | (4.3)  | 338   | (7.4)  |
| 36 to 45                       | 23.5        | (0.0) | 263        | (2.8) | 188   | (6.3)  | 226   | (4.9) | 266   | (4.4)  | 304   | (3.1)  | 335   | (4.7)  |
| 46 to 55                       | 21.0        | (0.5) | 261        | (2.4) | 182   | (8.4)  | 222   | (7.4) | 265   | (3.0)  | 302   | (4.1)  | 331   | (2.9)  |
| 56 to 65                       | 13.7        | (0.5) | 249        | (3.3) | 175   | (4.3)  | 211   | (4.0) | 249   | (3.5)  | 289   | (6.3)  | 323   | (2.8)  |

TABLE 3.3 (CONCLUDED)

Age and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and age                  | Distribution by skill levels |       |         |       |         |       |           |       |
|--------------------------------|------------------------------|-------|---------|-------|---------|-------|-----------|-------|
|                                | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|                                | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>    |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 36.2                         | (1.9) | 43.4    | (2.0) | 19.0    | (2.2) | 1.4       | (0.4) |
| 26 to 35                       | 54.1                         | (2.4) | 32.6    | (1.7) | 12.3    | (1.8) | 1.0       | (0.3) |
| 36 to 45                       | 54.9                         | (2.5) | 32.0    | (2.1) | 12.1    | (1.7) | 0.9       | (0.5) |
| 46 to 55                       | 54.9                         | (4.0) | 31.5    | (3.2) | 11.1    | (3.0) | 2.5       | (1.1) |
| 56 to 65                       | 73.2                         | (3.6) | 19.6    | (2.6) | 6.4     | (2.3) | 0.8       | (0.5) |
| <b>ALL</b>                     |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 17.0                         | (2.1) | 37.3    | (2.9) | 33.9    | (2.7) | 11.8      | (1.6) |
| 26 to 35                       | 20.7                         | (1.9) | 30.4    | (2.8) | 35.5    | (2.8) | 13.4      | (1.4) |
| 36 to 45                       | 19.7                         | (1.8) | 31.9    | (2.1) | 34.3    | (1.7) | 14.1      | (2.0) |
| 46 to 55                       | 19.7                         | (2.1) | 29.2    | (2.9) | 37.7    | (2.3) | 13.4      | (2.0) |
| 56 to 65                       | 24.6                         | (2.4) | 35.2    | (3.0) | 30.0    | (3.3) | 10.2      | (2.0) |
| <b>Document literacy scale</b> |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 29.5                         | (2.0) | 45.8    | (2.1) | 22.8    | (1.8) | 1.9       | (1.6) |
| 26 to 35                       | 49.5                         | (2.5) | 34.3    | (1.4) | 15.0    | (1.6) | 1.2       | (0.5) |
| 36 to 45                       | 53.5                         | (2.4) | 34.8    | (1.9) | 10.9    | (1.9) | 0.7       | (0.3) |
| 46 to 55                       | 52.4                         | (4.1) | 31.0    | (3.1) | 13.9    | (3.0) | 2.7       | (1.1) |
| 56 to 65                       | 68.5                         | (3.7) | 24.1    | (2.8) | 6.4     | (2.0) | 1.0       | (0.8) |
| <b>ALL</b>                     |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 15.7                         | (2.2) | 35.0    | (2.3) | 33.6    | (2.4) | 15.6      | (2.0) |
| 26 to 35                       | 19.0                         | (1.6) | 29.9    | (2.4) | 33.7    | (2.2) | 17.4      | (1.8) |
| 36 to 45                       | 19.9                         | (1.7) | 30.8    | (1.8) | 33.0    | (2.0) | 16.2      | (1.9) |
| 46 to 55                       | 20.7                         | (2.4) | 31.3    | (4.0) | 33.8    | (2.8) | 14.2      | (1.5) |
| 56 to 65                       | 28.2                         | (2.9) | 35.7    | (4.6) | 26.8    | (2.8) | 9.3       | (1.8) |
| <b>Numeracy scale</b>          |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 61.2                         | (2.0) | 29.3    | (1.2) | 8.7     | (1.5) | 0.8       | (0.2) |
| 26 to 35                       | 70.0                         | (2.5) | 22.7    | (1.6) | 6.8     | (1.2) | 0.5       | (0.2) |
| 36 to 45                       | 67.8                         | (2.5) | 25.9    | (1.8) | 5.8     | (1.3) | 0.5       | (0.2) |
| 46 to 55                       | 66.2                         | (4.2) | 23.4    | (2.2) | 9.2     | (2.7) | 1.2       | (0.6) |
| 56 to 65                       | 80.3                         | (3.4) | 13.6    | (1.9) | 5.1     | (1.8) | 0.9       | (1.0) |
| <b>ALL</b>                     |                              |       |         |       |         |       |           |       |
| 16 to 25                       | 25.8                         | (2.6) | 32.0    | (2.0) | 29.2    | (2.1) | 13.0      | (2.3) |
| 26 to 35                       | 25.3                         | (1.8) | 31.6    | (2.6) | 28.1    | (1.7) | 15.0      | (1.8) |
| 36 to 45                       | 25.1                         | (1.6) | 31.9    | (2.1) | 29.4    | (2.6) | 13.7      | (1.8) |
| 46 to 55                       | 26.6                         | (2.3) | 30.2    | (2.9) | 31.6    | (2.3) | 11.5      | (1.7) |
| 56 to 65                       | 33.8                         | (2.9) | 34.0    | (3.1) | 23.6    | (2.3) | 8.6       | (1.9) |

TABLE 3.4

## Race/ethnicity and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and race / ethnicity     | Distribution by skill levels |       |            |       |         |        |         |       |         |       |           |       |
|--------------------------------|------------------------------|-------|------------|-------|---------|--------|---------|-------|---------|-------|-----------|-------|
|                                | Overall                      |       |            |       | Level 1 |        | Level 2 |       | Level 3 |       | Level 4/5 |       |
|                                | %                            | S.E.  | Mean score | S.E.  | %       | S.E.   | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>    |                              |       |            |       |         |        |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 53.3                         | (1.5) | 226        | (3.4) | 44.2    | (2.1)  | 35.7    | (1.5) | 18.1    | (2.4) | 2.0       | (0.6) |
| Black or African American      | 21.1                         | (0.4) | 224        | (3.1) | 47.2    | (3.1)  | 43.5    | (2.3) | 8.7     | (1.3) | 0.6       | (0.4) |
| Hispanic                       | 35.0                         | (0.1) | 200        | (2.6) | 64.1    | (1.4)  | 26.0    | (1.2) | 8.9     | (1.1) | 1.0       | (0.3) |
| Asian                          | 8.9                          | (0.8) | 176        | (6.7) | 75.6    | (3.2)  | 14.9    | (2.0) | 8.8     | (1.8) | 0.6       | (0.2) |
| Others                         | 6.3                          | (0.8) | 233        | (5.7) | 40.8    | (4.7)  | 42.4    | (3.5) | 15.6    | (4.3) | 1.3       | (1.1) |
| <b>ALL</b>                     |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 69.9                         | (1.0) | 282        | (1.7) | 12.0    | (1.0)  | 30.3    | (0.9) | 41.1    | (1.0) | 16.6      | (0.9) |
| Black or African American      | 11.9                         | (0.3) | 242        | (4.0) | 32.9    | (3.9)  | 44.5    | (3.1) | 20.0    | (2.5) | 2.6       | (0.9) |
| Hispanic                       | 11.0                         | (0.6) | 225        | (4.6) | 49.3    | (3.5)  | 33.4    | (2.2) | 14.3    | (1.7) | 3.0       | (0.8) |
| Asian                          | 4.8                          | (0.9) | 256        | (5.9) | 28.6    | (40.4) | 32.8    | (6.8) | 30.0    | (4.9) | 8.6       | (2.0) |
| Others                         | 1.6                          | (0.4) | *          | *     | 37.9    | (12.7) | 33.6    | (5.6) | 22.0    | (7.5) | 6.6       | (3.2) |
| <b>Document literacy scale</b> |                              |       |            |       |         |        |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 53.3                         | (1.5) | 235        | (3.2) | 39.6    | (2.1)  | 37.1    | (1.5) | 21.0    | (2.2) | 2.3       | (0.8) |
| Black or African American      | 21.2                         | (0.4) | 226        | (3.3) | 45.1    | (3.4)  | 45.5    | (2.5) | 8.8     | (1.3) | 0.6       | (0.3) |
| Hispanic                       | 35.0                         | (0.1) | 210        | (2.1) | 60.8    | (1.7)  | 29.3    | (1.5) | 9.4     | (1.0) | 0.5       | (0.2) |
| Asian                          | 8.9                          | (0.8) | 197        | (5.7) | 68.1    | (3.1)  | 20.0    | (1.6) | 10.6    | (1.9) | 1.2       | (0.4) |
| Others                         | 6.3                          | (0.8) | 241        | (4.8) | 33.2    | (5.0)  | 42.1    | (4.6) | 24.1    | (3.5) | 0.6       | (0.3) |
| <b>ALL</b>                     |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 69.9                         | (1.0) | 283        | (1.8) | 12.1    | (1.1)  | 30.7    | (1.1) | 38.0    | (0.9) | 19.1      | (1.0) |
| Black or African American      | 11.9                         | (0.3) | 239        | (4.3) | 37.5    | (4.0)  | 40.3    | (2.9) | 19.0    | (2.5) | 3.2       | (1.0) |
| Hispanic                       | 11.0                         | (0.6) | 229        | (4.8) | 46.0    | (3.7)  | 35.2    | (2.4) | 14.7    | (1.7) | 4.0       | (0.8) |
| Asian                          | 4.8                          | (0.9) | 264        | (7.2) | 25.6    | (4.6)  | 28.8    | (7.9) | 32.3    | (4.6) | 13.3      | (3.7) |
| Others                         | 1.6                          | (0.4) | *          | *     | 39.4    | (10.4) | 31.3    | (4.3) | 23.9    | (8.4) | 5.4       | (2.7) |
| <b>Numeracy scale</b>          |                              |       |            |       |         |        |         |       |         |       |           |       |
| <b>AEPS</b>                    |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 53.3                         | (1.5) | 213        | (3.5) | 58.1    | (2.9)  | 30.5    | (1.3) | 10.4    | (2.0) | 1.0       | (0.3) |
| Black or African American      | 21.1                         | (0.4) | 186        | (2.6) | 84.3    | (1.4)  | 13.4    | (0.9) | 2.3     | (0.9) | 0.0       | (0.0) |
| Hispanic                       | 35.0                         | (0.1) | 194        | (2.2) | 73.1    | (1.6)  | 23.2    | (1.4) | 3.4     | (0.6) | 0.3       | (0.2) |
| Asian                          | 8.9                          | (0.8) | 190        | (5.6) | 70.8    | (3.2)  | 16.6    | (1.5) | 10.8    | (1.9) | 1.7       | (0.4) |
| Others                         | 6.3                          | (0.8) | 214        | (4.9) | 58.7    | (5.2)  | 35.8    | (5.0) | 5.3     | (1.4) | 0.1       | (0.1) |
| <b>ALL</b>                     |                              |       |            |       |         |        |         |       |         |       |           |       |
| White                          | 69.9                         | (1.0) | 274        | (1.8) | 17.5    | (1.1)  | 32.2    | (1.1) | 34.3    | (0.9) | 15.9      | (0.9) |
| Black or African American      | 11.9                         | (0.3) | 225        | (4.9) | 49.7    | (4.0)  | 34.1    | (2.5) | 13.5    | (2.0) | 2.7       | (1.0) |
| Hispanic                       | 11.0                         | (0.6) | 219        | (4.0) | 55.2    | (2.8)  | 29.8    | (1.9) | 12.6    | (1.4) | 2.4       | (0.6) |
| Asian                          | 4.8                          | (0.9) | 263        | (7.8) | 31.0    | (4.6)  | 23.9    | (5.4) | 28.5    | (3.4) | 16.6      | (4.0) |
| Others                         | 1.6                          | (0.4) | *          | *     | 47.6    | (11.6) | 28.2    | (5.2) | 16.1    | (6.4) | 8.0       | (4.4) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 3.5

Place of birth and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and place of birth            | Percentiles |       |            |       |         |        |           |       |       |       |       |       |       |       |
|-------------------------------------|-------------|-------|------------|-------|---------|--------|-----------|-------|-------|-------|-------|-------|-------|-------|
|                                     | Overall     |       |            |       | 10th    |        | 25th      |       | 50th  |       | 75th  |       | 90th  |       |
|                                     | %           | S.E.  | Mean score | S.E.  | Score   | S.E.   | Score     | S.E.  | Score | S.E.  | Score | S.E.  | Score | S.E.  |
| <b>Prose literacy scale</b>         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 57.2        | (0.8) | 246        | (2.5) | 194     | (1.4)  | 220       | (2.8) | 246   | (2.5) | 272   | (3.4) | 299   | (2.5) |
| Non-native                          | 42.7        | (0.7) | 184        | (2.2) | 98      | (3.8)  | 140       | (4.4) | 187   | (1.7) | 229   | (2.5) | 264   | (3.1) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 83.2        | (0.2) | 276        | (1.4) | 215     | (1.7)  | 245       | (1.6) | 279   | (1.7) | 310   | (1.5) | 335   | (2.1) |
| Non-native                          | 14.4        | (0.5) | 234        | (3.5) | 154     | (15.4) | 192       | (1.8) | 235   | (3.5) | 278   | (5.0) | 311   | (6.1) |
| <b>Document literacy scale</b>      |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 57.2        | (0.8) | 250        | (2.7) | 203     | (2.8)  | 225       | (2.3) | 251   | (1.4) | 279   | (3.6) | 299   | (5.1) |
| Non-native                          | 42.7        | (0.7) | 198        | (1.7) | 130     | (1.6)  | 160       | (4.2) | 200   | (2.0) | 234   | (2.2) | 268   | (3.0) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 83.2        | (0.2) | 276        | (1.5) | 210     | (3.2)  | 243       | (1.3) | 278   | (1.8) | 311   | (1.9) | 340   | (2.1) |
| Non-native                          | 14.4        | (0.5) | 240        | (4.0) | 160     | (4.9)  | 199       | (2.9) | 242   | (5.6) | 282   | (4.3) | 316   | (3.2) |
| <b>Numeracy scale</b>               |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 57.2        | (0.8) | 216        | (3.2) | 156     | (2.0)  | 183       | (3.0) | 215   | (5.6) | 247   | (5.9) | 275   | (3.7) |
| Non-native                          | 42.7        | (0.7) | 186        | (2.0) | 114     | (2.5)  | 146       | (2.9) | 186   | (2.6) | 222   | (2.4) | 258   | (2.6) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              | 83.2        | (0.2) | 267        | (1.4) | 194     | (2.1)  | 230       | (1.4) | 270   | (1.4) | 304   | (2.0) | 336   | (2.6) |
| Non-native                          | 14.4        | (0.5) | 238        | (3.7) | 155     | (6.1)  | 192       | (4.4) | 234   | (2.2) | 287   | (7.9) | 326   | (4.3) |
| <b>Distribution by skill levels</b> |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Scale and place of birth            | Level 1     |       | Level 2    |       | Level 3 |        | Level 4/5 |       |       |       |       |       |       |       |
|                                     | %           | S.E.  | %          | S.E.  | %       | S.E.   | %         | S.E.  |       |       |       |       |       |       |
| <b>Prose literacy scale</b>         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 30.1       | (1.8) | 47.6    | (1.5)  | 20.3      | (2.2) | 2.0   | (0.5) |       |       |       |       |
| Non-native                          |             |       | 73.7       | (1.3) | 19.3    | (1.0)  | 6.4       | (0.8) | 0.5   | (0.1) |       |       |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 15.0       | (0.8) | 32.5    | (0.9)  | 38.1      | (0.8) | 14.5  | (0.9) |       |       |       |       |
| Non-native                          |             |       | 44.0       | (2.5) | 31.0    | (2.2)  | 19.6      | (2.1) | 5.5   | (0.8) |       |       |       |       |
| <b>Document literacy scale</b>      |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 25.5       | (2.1) | 48.2    | (1.7)  | 23.8      | (2.0) | 2.4   | (0.8) |       |       |       |       |
| Non-native                          |             |       | 69.4       | (1.4) | 23.1    | (1.0)  | 7.2       | (0.8) | 0.3   | (0.1) |       |       |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 16.0       | (0.8) | 32.1    | (1.0)  | 35.4      | (0.8) | 16.5  | (0.9) |       |       |       |       |
| Non-native                          |             |       | 40.5       | (2.8) | 29.4    | (1.9)  | 21.4      | (1.6) | 8.7   | (1.5) |       |       |       |       |
| <b>Numeracy scale</b>               |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 59.2       | (2.9) | 30.4    | (1.4)  | 9.6       | (1.9) | 0.8   | (0.3) |       |       |       |       |
| Non-native                          |             |       | 75.9       | (1.3) | 18.5    | (1.0)  | 5.1       | (0.5) | 0.5   | (0.1) |       |       |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |       |       |       |
| Native                              |             |       | 22.7       | (0.9) | 32.8    | (0.9)  | 31.2      | (0.7) | 13.4  | (0.8) |       |       |       |       |
| Non-native                          |             |       | 45.5       | (2.4) | 24.5    | (1.8)  | 19.3      | (1.5) | 10.7  | (1.6) |       |       |       |       |

TABLE 3.6

## Mother tongue and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL

| Scale and mother tongue             | Percentiles |       |            |       |         |        |           |       |       |       |       |        |       |       |
|-------------------------------------|-------------|-------|------------|-------|---------|--------|-----------|-------|-------|-------|-------|--------|-------|-------|
|                                     | Overall     |       |            |       | 10th    |        | 25th      |       | 50th  |       | 75th  |        | 90th  |       |
|                                     | %           | S.E.  | Mean score | S.E.  | Score   | S.E.   | Score     | S.E.  | Score | S.E.  | Score | S.E.   | Score | S.E.  |
| <b>Prose literacy scale</b>         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 55.5        | (0.8) | 246        | (2.6) | 194     | (1.4)  | 221       | (2.7) | 246   | (2.4) | 273   | (3.7)  | 300   | (2.6) |
| Mother tongue is not English        | 44.4        | (0.8) | 186        | (2.3) | 100     | (4.5)  | 143       | (4.3) | 189   | (2.7) | 231   | (2.8)  | 266   | (2.3) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 86.1        | (0.9) | 277        | (1.4) | 215     | (2.0)  | 248       | (2.0) | 280   | (2.0) | 311   | (1.6)  | 336   | (2.2) |
| Mother tongue is not English        | 13.9        | (0.9) | 229        | (4.1) | 150     | (14.2) | 193       | (3.1) | 231   | (5.7) | 269   | (7.5)  | 302   | (3.2) |
| <b>Document literacy scale</b>      |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 55.5        | (0.8) | 250        | (2.8) | 203     | (3.5)  | 225       | (2.5) | 251   | (1.1) | 280   | (3.4)  | 300   | (4.4) |
| Mother tongue is not English        | 44.4        | (0.8) | 200        | (1.8) | 133     | (5.4)  | 163       | (2.4) | 202   | (2.0) | 237   | (1.5)  | 269   | (2.6) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 86.1        | (0.9) | 278        | (1.6) | 211     | (2.9)  | 246       | (1.9) | 280   | (1.6) | 313   | (2.2)  | 340   | (1.8) |
| Mother tongue is not English        | 13.9        | (0.9) | 234        | (4.7) | 154     | (8.0)  | 196       | (5.8) | 235   | (6.5) | 276   | (4.9)  | 311   | (9.9) |
| <b>Numeracy scale</b>               |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 55.5        | (0.8) | 216        | (3.3) | 156     | (2.3)  | 182       | (2.3) | 215   | (4.5) | 248   | (6.9)  | 277   | (4.0) |
| Mother tongue is not English        | 44.4        | (0.8) | 188        | (2.1) | 116     | (3.0)  | 149       | (2.4) | 188   | (2.8) | 223   | (2.9)  | 257   | (3.2) |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            | 86.1        | (0.9) | 268        | (1.6) | 196     | (2.1)  | 232       | (1.8) | 270   | (1.9) | 306   | (3.0)  | 336   | (3.5) |
| Mother tongue is not English        | 13.9        | (0.9) | 230        | (4.9) | 147     | (8.5)  | 185       | (6.4) | 227   | (6.3) | 275   | (11.2) | 317   | (6.4) |
| <b>Distribution by skill levels</b> |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Scale and mother tongue             | Level 1     |       | Level 2    |       | Level 3 |        | Level 4/5 |       |       |       |       |        |       |       |
|                                     | %           | S.E.  | %          | S.E.  | %       | S.E.   | %         | S.E.  |       |       |       |        |       |       |
| <b>Prose literacy scale</b>         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 29.7    | (1.9)  | 47.7      | (1.7) | 20.4  | (2.3) | 2.1   | (0.6)  |       |       |
| Mother tongue is not English        |             |       |            |       | 72.6    | (1.5)  | 20.2      | (1.2) | 6.8   | (0.9) | 0.4   | (0.1)  |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 14.0    | (0.8)  | 32.3      | (1.1) | 38.9  | (1.1) | 14.8  | (1.1)  |       |       |
| Mother tongue is not English        |             |       |            |       | 46.4    | (3.5)  | 32.5      | (3.1) | 17.4  | (2.1) | 3.7   | (1.4)  |       |       |
| <b>Document literacy scale</b>      |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 25.6    | (2.2)  | 47.8      | (1.7) | 24.1  | (2.1) | 2.5   | (0.8)  |       |       |
| Mother tongue is not English        |             |       |            |       | 67.6    | (1.5)  | 24.6      | (1.0) | 7.5   | (0.9) | 0.3   | (0.1)  |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 14.8    | (1.0)  | 31.8      | (1.6) | 36.2  | (1.3) | 17.1  | (1.1)  |       |       |
| Mother tongue is not English        |             |       |            |       | 43.0    | (4.5)  | 32.3      | (4.3) | 19.1  | (2.3) | 5.5   | (2.0)  |       |       |
| <b>Numeracy scale</b>               |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| <b>AEPS</b>                         |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 59.2    | (2.9)  | 29.9      | (1.5) | 10.0  | (2.0) | 0.9   | (0.3)  |       |       |
| Mother tongue is not English        |             |       |            |       | 75.3    | (1.4)  | 19.6      | (1.2) | 4.7   | (0.4) | 0.5   | (0.1)  |       |       |
| <b>ALL</b>                          |             |       |            |       |         |        |           |       |       |       |       |        |       |       |
| Mother tongue is English            |             |       |            |       | 21.5    | (0.9)  | 32.6      | (1.2) | 31.9  | (1.2) | 14.0  | (1.3)  |       |       |
| Mother tongue is not English        |             |       |            |       | 49.5    | (3.5)  | 25.8      | (2.9) | 17.0  | (2.4) | 7.6   | (2.2)  |       |       |

TABLE 3.7

Mother tongue and skills on the prose literacy, document literacy and numeracy scales, by place of birth, AEPS and ALL

| Scale and mother tongue        | Native adults               |       |            |        |                              |       |         |       |         |       |           |       |
|--------------------------------|-----------------------------|-------|------------|--------|------------------------------|-------|---------|-------|---------|-------|-----------|-------|
|                                | Overall                     |       |            |        | Distribution by skill levels |       |         |       |         |       |           |       |
|                                |                             |       | Mean score | S.E.   | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|                                | %                           | S.E.  |            |        | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 94.7                        | (0.9) | 247        | (2.6)  | 29.3                         | (1.9) | 48.1    | (1.7) | 20.5    | (2.3) | 2.1       | (0.6) |
| Mother tongue is not English   | 5.1                         | (0.8) | 235        | (7.0)  | 43.2                         | (8.8) | 39.7    | (8.0) | 16.6    | (4.0) | 0.5       | (0.5) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 96.4                        | (0.7) | 278        | (1.4)  | 14.0                         | (0.8) | 32.2    | (1.1) | 38.9    | (1.3) | 14.9      | (1.2) |
| Mother tongue is not English   | 3.6                         | (0.7) | 240        | (5.5)  | 38.2                         | (4.8) | 37.9    | (4.9) | 20.3    | (5.3) | 3.7       | (2.4) |
| <b>Document literacy scale</b> |                             |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 94.7                        | (0.9) | 251        | (2.8)  | 25.1                         | (2.2) | 48.2    | (1.7) | 24.2    | (2.1) | 2.5       | (0.8) |
| Mother tongue is not English   | 5.1                         | (0.8) | 241        | (7.3)  | 31.7                         | (8.0) | 50.3    | (4.1) | 17.7    | (6.6) | 0.3       | (0.3) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 96.4                        | (0.7) | 278        | (1.5)  | 14.8                         | (1.0) | 31.9    | (1.6) | 36.2    | (1.3) | 17.0      | (1.0) |
| Mother tongue is not English   | 3.6                         | (0.7) | 236        | (7.0)  | 41.6                         | (7.9) | 37.5    | (6.3) | 17.3    | (4.9) | 3.5       | (1.7) |
| <b>Numeracy scale</b>          |                             |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 94.7                        | (0.9) | 217        | (3.3)  | 58.9                         | (3.0) | 30.2    | (1.5) | 10.0    | (2.0) | 0.9       | (0.3) |
| Mother tongue is not English   | 5.1                         | (0.8) | 211        | (7.2)  | 63.0                         | (7.0) | 34.8    | (6.9) | 2.2     | (1.4) | 0.0       | (0.0) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 96.4                        | (0.7) | 268        | (1.5)  | 21.5                         | (0.8) | 32.8    | (1.1) | 32.0    | (1.3) | 13.0      | (1.3) |
| Mother tongue is not English   | 3.6                         | (0.7) | 225        | (6.4)  | 50.5                         | (7.0) | 32.8    | (7.1) | 14.2    | (3.8) | 2.4       | (3.3) |
| <b>Non-native adults</b>       |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Scale and mother tongue        | Overall                     |       |            |        | Distribution by skill levels |       |         |       |         |       |           |       |
|                                |                             |       | Mean score | S.E.   | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|                                | %                           | S.E.  |            |        | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
|                                | <b>Prose literacy scale</b> |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 3.0                         | (0.8) | 226        | (14.5) | 43.3                         | (8.5) | 35.4    | (7.3) | 17.0    | (6.7) | 4.2       | (2.9) |
| Mother tongue is not English   | 97.0                        | (0.8) | 183        | (2.2)  | 74.7                         | (1.3) | 18.8    | (1.1) | 6.1     | (0.8) | 0.4       | (0.1) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 22.3                        | (3.1) | 275        | (7.9)  | 15.7                         | (5.1) | 34.0    | (7.9) | 36.8    | (8.6) | 13.5      | (4.5) |
| Mother tongue is not English   | 77.7                        | (3.1) | 226        | (4.3)  | 48.8                         | (4.0) | 31.0    | (3.8) | 16.5    | (2.3) | 13.7      | (1.3) |
| <b>Document literacy scale</b> |                             |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 3.0                         | (0.8) | 228        | (13.8) | 45.2                         | (8.9) | 32.7    | (6.2) | 20.9    | (8.8) | 1.2       | (1.1) |
| Mother tongue is not English   | 97.0                        | (0.8) | 198        | (1.7)  | 70.1                         | (1.4) | 22.8    | (1.1) | 6.7     | (0.7) | 0.3       | (0.1) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 22.3                        | (3.1) | 280        | (9.2)  | 15.0                         | (5.2) | 28.9    | (7.2) | 35.4    | (8.7) | 20.2      | (8.3) |
| Mother tongue is not English   | 77.7                        | (3.1) | 234        | (5.0)  | 43.4                         | (4.7) | 30.9    | (4.7) | 19.6    | (2.8) | 6.1       | (2.3) |
| <b>Numeracy scale</b>          |                             |       |            |        |                              |       |         |       |         |       |           |       |
| <b>AEPS</b>                    |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 3.0                         | (0.8) | 197        | (15.2) | 70.2                         | (9.1) | 16.5    | (5.6) | 12.4    | (7.0) | 0.8       | (0.6) |
| Mother tongue is not English   | 97.0                        | (0.8) | 186        | (2.1)  | 76.1                         | (1.3) | 18.5    | (1.0) | 4.9     | (0.4) | 0.5       | (0.1) |
| <b>ALL</b>                     |                             |       |            |        |                              |       |         |       |         |       |           |       |
| Mother tongue is English       | 22.3                        | (3.1) | 275        | (9.6)  | 21.8                         | (6.0) | 27.0    | (6.6) | 30.6    | (8.1) | 20.6      | (5.6) |
| Mother tongue is not English   | 77.7                        | (3.1) | 231        | (5.1)  | 49.3                         | (3.5) | 23.9    | (3.0) | 17.8    | (3.0) | 9.1       | (2.4) |

TABLE 3.8

**Highest level of education and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL<sup>a</sup>**

| Scale and level of education   | Percentiles |       |            |        |       |        |       |        |       |        |       |        |       |        |
|--------------------------------|-------------|-------|------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
|                                | Overall     |       |            |        | 10th  |        | 25th  |        | 50th  |        | 75th  |        | 90th  |        |
|                                | %           | S.E.  | Mean score | S.E.   | Score | S.E.   | Score | S.E.   | Score | S.E.   | Score | S.E.   | Score | S.E.   |
| <b>Prose literacy scale</b>    |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 90.2        | (2.0) | 217        | (1.7)  | 134   | (4.0)  | 184   | (3.4)  | 227   | (2.0)  | 259   | (2.3)  | 286   | (4.1)  |
| High school                    | 4.6         | (1.4) | 248        | (13.2) | 176   | (20.7) | 215   | (9.8)  | 259   | (18.1) | 289   | (18.9) | 305   | (13.4) |
| More than high school          | 3.1         | (0.6) | 248        | (13.2) | 168   | (11.3) | 229   | (15.6) | 249   | (11.6) | 278   | (6.4)  | 301   | (1.5)  |
| College or more                | 0.9         | (0.2) | 287        | (18.8) | 175   | (22.4) | 208   | (23.3) | 308   | (9.5)  | 323   | (36.7) | 389   | (0.2)  |
| <b>ALL</b>                     |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 18.0        | (0.0) | 223        | (2.9)  | 154   | (8.7)  | 188   | (4.1)  | 224   | (4.5)  | 261   | (5.5)  | 288   | (4.6)  |
| High school                    | 46.8        | (0.9) | 266        | (1.8)  | 209   | (3.8)  | 237   | (1.5)  | 267   | (3.2)  | 297   | (2.3)  | 322   | (2.9)  |
| More than high school          | 3.7         | (0.5) | 258        | (4.6)  | 202   | (9.7)  | 235   | (22.6) | 265   | (11.4) | 285   | (3.6)  | 306   | (7.4)  |
| College or more                | 31.5        | (1.0) | 300        | (2.1)  | 245   | (2.8)  | 276   | (2.7)  | 304   | (2.6)  | 328   | (3.6)  | 351   | (3.3)  |
| <b>Document literacy scale</b> |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 90.2        | (2.0) | 226        | (1.5)  | 153   | (3.2)  | 195   | (2.6)  | 231   | (2.4)  | 263   | (2.2)  | 289   | (1.7)  |
| High school                    | 4.6         | (1.4) | 255        | (12.9) | 186   | (10.3) | 229   | (12.7) | 266   | (13.2) | 297   | (13.9) | 313   | (2.9)  |
| More than high school          | 3.1         | (0.6) | 259        | (11.6) | 199   | (27.3) | 231   | (14.1) | 265   | (25.1) | 286   | (0.9)  | 312   | (14.3) |
| College or more                | 0.9         | (0.2) | 263        | (14.6) | 179   | (1.3)  | 204   | (37.5) | 286   | (10.1) | 299   | (27.2) | 340   | (0.2)  |
| <b>ALL</b>                     |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 18.0        | (0.0) | 226        | (3.1)  | 154   | (5.4)  | 189   | (4.9)  | 228   | (5.9)  | 263   | (6.0)  | 297   | (11.0) |
| High school                    | 46.8        | (0.9) | 265        | (1.9)  | 206   | (2.9)  | 235   | (3.7)  | 266   | (2.7)  | 298   | (2.5)  | 326   | (2.6)  |
| More than high school          | 3.7         | (0.5) | 265        | (4.6)  | 205   | (7.1)  | 240   | (4.8)  | 266   | (8.3)  | 294   | (7.5)  | 316   | (7.2)  |
| College or more                | 31.5        | (1.0) | 302        | (2.6)  | 246   | (3.4)  | 275   | (1.9)  | 305   | (3.0)  | 333   | (3.2)  | 357   | (5.1)  |
| <b>Numeracy scale</b>          |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| <b>AEPS</b>                    |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 90.2        | (2.0) | 201        | (1.5)  | 134   | (3.0)  | 168   | (3.6)  | 204   | (1.7)  | 235   | (1.9)  | 269   | (5.6)  |
| High school                    | 4.6         | (1.4) | 225        | (14.9) | 154   | (8.4)  | 187   | (8.0)  | 233   | (30.1) | 266   | (18.0) | 297   | (21.9) |
| More than high school          | 3.1         | (0.6) | 235        | (12.6) | 157   | (29.6) | 199   | (16.7) | 239   | (16.6) | 265   | (10.9) | 289   | (13.9) |
| College or more                | 0.9         | (0.2) | 254        | (14.5) | 161   | (1.9)  | 184   | (54.7) | 266   | (19.7) | 293   | (16.5) | 324   | (0.2)  |
| <b>ALL</b>                     |             |       |            |        |       |        |       |        |       |        |       |        |       |        |
| Less than high school          | 18.0        | (0.0) | 215        | (2.7)  | 148   | (7.4)  | 177   | (3.0)  | 213   | (4.7)  | 252   | (2.3)  | 290   | (9.5)  |
| High school                    | 46.8        | (0.9) | 255        | (1.9)  | 193   | (2.6)  | 222   | (2.8)  | 255   | (3.4)  | 289   | (2.2)  | 319   | (2.6)  |
| More than high school          | 3.7         | (0.5) | 244        | (4.4)  | 176   | (14.5) | 213   | (8.2)  | 248   | (12.5) | 279   | (3.0)  | 305   | (8.9)  |
| College or more                | 31.5        | (1.0) | 298        | (2.6)  | 236   | (3.2)  | 268   | (5.3)  | 302   | (1.8)  | 330   | (3.9)  | 355   | (3.2)  |

TABLE 3.8 (CONCLUDED)

Highest level of education and skills on the prose literacy, document literacy and numeracy scales, AEPS and ALL<sup>a</sup>

| Scale and level of education   | Distribution by skill levels |        |         |        |         |        |           |        |
|--------------------------------|------------------------------|--------|---------|--------|---------|--------|-----------|--------|
|                                | Level 1                      |        | Level 2 |        | Level 3 |        | Level 4/5 |        |
|                                | %                            | S.E.   | %       | S.E.   | %       | S.E.   | %         | S.E.   |
| <b>Prose literacy scale</b>    |                              |        |         |        |         |        |           |        |
| <b>AEPS</b>                    |                              |        |         |        |         |        |           |        |
| Less than high school          | 50.3                         | (1.4)  | 35.9    | (1.1)  | 12.9    | (1.1)  | 0.8       | (0.2)  |
| High school                    | 30.0                         | (7.8)  | 34.6    | (5.1)  | 31.0    | (9.1)  | 4.4       | (2.0)  |
| More than high school          | 27.6                         | (8.1)  | 38.8    | (3.8)  | 29.9    | (8.2)  | 3.7       | (1.6)  |
| College or more                | 26.5                         | (7.4)  | 13.9    | (6.7)  | 27.7    | (7.8)  | 31.9      | (10.0) |
| <b>ALL</b>                     |                              |        |         |        |         |        |           |        |
| Less than high school          | 51.5                         | (2.9)  | 33.7    | (3.2)  | 13.1    | (2.0)  | 1.8       | (0.7)  |
| High school                    | 17.9                         | (1.6)  | 39.9    | (1.8)  | 34.1    | (1.7)  | 8.1       | (1.1)  |
| More than high school          | 19.1                         | (5.3)  | 45.2    | (6.1)  | 32.5    | (4.4)  | 3.3       | (1.6)  |
| College or more                | 5.3                          | (1.1)  | 19.7    | (2.3)  | 47.8    | (2.3)  | 27.2      | (2.0)  |
| <b>Document literacy scale</b> |                              |        |         |        |         |        |           |        |
| <b>AEPS</b>                    |                              |        |         |        |         |        |           |        |
| Less than high school          | 45.7                         | (1.5)  | 38.1    | (1.0)  | 15.2    | (1.0)  | 1.0       | (0.2)  |
| High school                    | 26.3                         | (8.4)  | 34.0    | (5.5)  | 33.6    | (10.0) | 6.1       | (2.0)  |
| More than high school          | 23.1                         | (7.2)  | 37.9    | (4.6)  | 31.3    | (7.3)  | 7.7       | (3.1)  |
| College or more                | 29.0                         | (7.8)  | 18.6    | (9.1)  | 38.1    | (13.0) | 14.3      | (8.9)  |
| <b>ALL</b>                     |                              |        |         |        |         |        |           |        |
| Less than high school          | 49.3                         | (2.9)  | 33.3    | (2.8)  | 14.0    | (1.6)  | 3.5       | (1.3)  |
| High school                    | 19.5                         | (1.5)  | 39.1    | (2.2)  | 31.6    | (1.6)  | 9.9       | (1.0)  |
| More than high school          | 17.1                         | (5.0)  | 40.4    | (6.0)  | 35.5    | (5.6)  | 7.1       | (2.3)  |
| College or more                | 4.9                          | (0.8)  | 20.5    | (2.5)  | 44.4    | (2.4)  | 3.7       | (0.9)  |
| <b>Numeracy scale</b>          |                              |        |         |        |         |        |           |        |
| <b>AEPS</b>                    |                              |        |         |        |         |        |           |        |
| Less than high school          | 68.3                         | (1.4)  | 24.9    | (1.0)  | 6.3     | (0.7)  | 0.5       | (0.1)  |
| High school                    | 47.9                         | (11.5) | 31.8    | (3.8)  | 18.8    | (7.4)  | 1.5       | (1.2)  |
| More than high school          | 40.0                         | (10.9) | 34.4    | (5.3)  | 23.9    | (5.9)  | 1.6       | (0.5)  |
| College or more                | 32.7                         | (8.4)  | 21.6    | (10.4) | 34.5    | (12.8) | 11.2      | (6.5)  |
| <b>ALL</b>                     |                              |        |         |        |         |        |           |        |
| Less than high school          | 59.3                         | (2.6)  | 26.7    | (2.3)  | 11.8    | (1.4)  | 2.2       | (0.9)  |
| High school                    | 27.2                         | (1.5)  | 38.6    | (1.8)  | 26.8    | (1.8)  | 7.4       | (1.1)  |
| More than high school          | 31.8                         | (4.2)  | 41.5    | (4.7)  | 24.1    | (3.5)  | 2.6       | (1.3)  |
| College or more                | 7.0                          | (1.2)  | 23.4    | (2.1)  | 41.9    | (1.7)  | 27.7      | (2.3)  |

<sup>a</sup> AEPS data based on responses to the question: “What is the highest level of schooling you completed in the United States?.” All data based on responses to the question: “What is the highest education you have ever completed?.”

TABLE 3.9

**Educational level and skills on the prose literacy, document literacy and numeracy scales,  
by place of birth, AEPS and ALL**

| Level of education      | Native adults     |       |                |        |                   |        |          |        |
|-------------------------|-------------------|-------|----------------|--------|-------------------|--------|----------|--------|
|                         | Percentage        |       | Mean scores    |        |                   |        |          |        |
|                         | %                 | S.E.  | Prose literacy |        | Document literacy |        | Numeracy |        |
|                         |                   |       | Score          | S.E.   | Score             | S.E.   | Score    | S.E.   |
| <b>AEPS<sup>a</sup></b> |                   |       |                |        |                   |        |          |        |
| Less than high school   | 89.4              | (3.4) | 244            | (1.8)  | 248               | (1.9)  | 213      | (2.2)  |
| High school             | 6.9               | (2.3) | 259            | (11.2) | 265               | (11.5) | 233      | (14.4) |
| More than high school   | 2.8               | (1.1) | *              | *      | *                 | *      | *        | *      |
| College or more         | 0.7               | (0.3) | *              | *      | *                 | *      | *        | *      |
| <b>ALL<sup>b</sup></b>  |                   |       |                |        |                   |        |          |        |
| Less than high school   | 15.3              | (0.4) | 234            | (3.3)  | 235               | (3.9)  | 223      | (3.3)  |
| High school             | 49.6              | (1.1) | 270            | (1.6)  | 269               | (1.9)  | 258      | (1.9)  |
| More than high school   | 4.1               | (0.5) | 264            | (3.4)  | 270               | (4.3)  | 251      | (3.8)  |
| College or more         | 31.1              | (1.0) | 307            | (1.8)  | 308               | (2.4)  | 302      | (2.3)  |
| Level of education      | Non-native adults |       |                |        |                   |        |          |        |
|                         | Percentage        |       | Mean scores    |        |                   |        |          |        |
|                         | %                 | S.E.  | Prose literacy |        | Document literacy |        | Numeracy |        |
|                         |                   |       | Score          | S.E.   | Score             | S.E.   | Score    | S.E.   |
| <b>AEPS<sup>a</sup></b> |                   |       |                |        |                   |        |          |        |
| Less than high school   | 91.5              | (0.9) | 182            | (2.3)  | 198               | (1.8)  | 186      | (2.1)  |
| High school             | 1.5               | (0.4) | 186            | (22.0) | 198               | (17.9) | 176      | (15.6) |
| More than high school   | 3.5               | (0.5) | *              | *      | *                 | *      | *        | *      |
| College or more         | 1.2               | (0.4) | *              | *      | *                 | *      | *        | *      |
| <b>ALL<sup>b</sup></b>  |                   |       |                |        |                   |        |          |        |
| Less than high school   | 26.1              | (1.8) | 185            | (5.8)  | 194               | (6.7)  | 188      | (6.0)  |
| High school             | 35.8              | (2.9) | 233            | (5.9)  | 238               | (6.3)  | 233      | (5.7)  |
| More than high school   | 2.4               | (1.0) | *              | *      | *                 | *      | *        | *      |
| College or more         | 35.6              | (2.6) | 272            | (4.7)  | 280               | (5.4)  | 282      | (5.4)  |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

<sup>a</sup> Data based on responses to the question: "What is the highest level of schooling you completed in the United States?"

<sup>b</sup> Data based on responses to the question: "What is the highest education you have ever completed?"

TABLE 3.10

Latent class analysis for adults based on reading engagement, ALL population

| Reading engagement classes   | Class 1              |                       |                      |                      |                         | Class 2              |                       |                      |                      |                         |
|--|----------------------|-----------------------|----------------------|----------------------|-------------------------|----------------------|-----------------------|----------------------|----------------------|-------------------------|
|  | Probabilities        |                       |                      |                      |                         | Probabilities        |                       |                      |                      |                         |
| How often do you:  | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   |
| Use a public library?  | 0.18                 | 0.23                  | 0.24                 | 0.21                 | 0.14                    | 0.03                 | 0.04                  | 0.11                 | 0.35                 | 0.48                    |
| Visit a bookstore?   | 0.20                 | 0.42                  | 0.28                 | 0.08                 | 0.01                    | 0.01                 | 0.04                  | 0.24                 | 0.35                 | 0.35                    |
| How much time do you usually spend each day watching television or videos? | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR |
|  | 0.29                 | 0.32                  | 0.33                 | 0.05                 | 0.01                    | 0.14                 | 0.26                  | 0.42                 | 0.17                 | 0.02                    |
| How often do you read information from:                                    | At least once a week | Less than once a week | Rarely               | Never                |                         | At least once a week | Less than once a week | Rarely               | Never                |                         |
| Newspapers?  | 0.89                 | 0.07                  | 0.04                 |                      |                         | 0.88                 | 0.08                  | 0.04                 |                      |                         |
| Books?   | 0.81                 | 0.16                  | 0.02                 | 0.00                 |                         | 0.61                 | 0.25                  | 0.11                 | 0.04                 |                         |
| Magazines?   | 0.70                 | 0.22                  | 0.08                 | 0.00                 |                         | 0.23                 | 0.21                  | 0.39                 | 0.16                 |                         |
| Letter, notes, email?  | 0.79                 | 0.11                  | 0.07                 | 0.03                 |                         | 0.45                 | 0.17                  | 0.23                 | 0.16                 |                         |
| From newspapers, do you read:  | Yes                  | No                    |                      |                      |                         | Yes                  | No                    |                      |                      |                         |
| National / international news?   | 0.89                 | 0.11                  |                      |                      |                         | 0.80                 | 0.20                  |                      |                      |                         |
| Regional or local news?  | 0.95                 | 0.05                  |                      |                      |                         | 0.99                 | 0.01                  |                      |                      |                         |
| Sports?  | 0.46                 | 0.54                  |                      |                      |                         | 0.55                 | 0.45                  |                      |                      |                         |
| Home, fashion, food or health?   | 0.68                 | 0.33                  |                      |                      |                         | 0.57                 | 0.43                  |                      |                      |                         |
| Editorial page?  | 0.63                 | 0.37                  |                      |                      |                         | 0.62                 | 0.38                  |                      |                      |                         |
| Financial news or stock listings?  | 0.48                 | 0.52                  |                      |                      |                         | 0.36                 | 0.64                  |                      |                      |                         |
| Book, movie or art reviews?  | 0.73                 | 0.27                  |                      |                      |                         | 0.51                 | 0.49                  |                      |                      |                         |
| Advice column?   | 0.37                 | 0.63                  |                      |                      |                         | 0.44                 | 0.56                  |                      |                      |                         |

TABLE 3.10 (CONCLUDED)

## Latent class analysis for adults based on reading engagement, ALL population

| Reading engagement classes   | Class 3              |                       |                      |                      |                         | Class 4              |                       |                      |                      |                         |
|--|----------------------|-----------------------|----------------------|----------------------|-------------------------|----------------------|-----------------------|----------------------|----------------------|-------------------------|
|  | Probabilities        |                       |                      |                      |                         | Probabilities        |                       |                      |                      |                         |
| How often do you:  | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   | Weekly               | Monthly               | Several times a year | Once or twice yearly | Never                   |
| Use a public library?  | 0.09                 | 0.14                  | 0.20                 | 0.34                 | 0.23                    | 0.01                 | 0.02                  | 0.04                 | 0.12                 | 0.81                    |
| Visit a bookstore?   | 0.06                 | 0.23                  | 0.32                 | 0.31                 | 0.07                    | 0.01                 | 0.02                  | 0.04                 | 0.12                 | 0.81                    |
| How much time do you usually spend each day watching television or videos? | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR | 1 hour or less       | Between 1 and 2 hours | Between 2 and 5      | 5 or more            | Do not have a TV or VCR |
|  | 0.18                 | 0.33                  | 0.37                 | 0.12                 | 0.01                    | 0.20                 | 0.21                  | 0.34                 | 0.23                 | 0.02                    |
| How often do you read information from:                                    | At least once a week | Less than once a week | Rarely               | Never                |                         | At least once a week | Less than once a week | Rarely               | Never                |                         |
| Newspapers?  | 0.28                 | 0.22                  | 0.50                 |                      |                         | 0.00                 | 0.10                  | 0.62                 |                      |                         |
| Books?   | 0.27                 | 0.34                  | 0.36                 | 0.02                 |                         | 0.11                 | 0.14                  | 0.28                 | 0.47                 |                         |
| Magazines?   | 0.35                 | 0.21                  | 0.40                 | 0.05                 |                         | 0.07                 | 0.06                  | 0.22                 | 0.65                 |                         |
| Letter, notes, email?  | 0.55                 | 0.17                  | 0.23                 | 0.05                 |                         | 0.15                 | 0.10                  | 0.19                 | 0.56                 |                         |
| From newspapers, do you read:  | Yes                  | No                    |                      |                      |                         | Yes                  | No                    |                      |                      |                         |
| National / international news?   | 0.41                 | 0.59                  |                      |                      |                         | 0.36                 | 0.64                  |                      |                      |                         |
| Regional or local news?  | 0.66                 | 0.34                  |                      |                      |                         | 0.75                 | 0.25                  |                      |                      |                         |
| Sports?  | 0.34                 | 0.66                  |                      |                      |                         | 0.42                 | 0.58                  |                      |                      |                         |
| Home, fashion, food or health?   | 0.32                 | 0.68                  |                      |                      |                         | 0.24                 | 0.76                  |                      |                      |                         |
| Editorial page?  | 0.18                 | 0.82                  |                      |                      |                         | 0.17                 | 0.84                  |                      |                      |                         |
| Financial news or stock listings?  | 0.15                 | 0.86                  |                      |                      |                         | 0.06                 | 0.94                  |                      |                      |                         |
| Book, movie or art reviews?  | 0.42                 | 0.58                  |                      |                      |                         | 0.15                 | 0.86                  |                      |                      |                         |
| Advice column?   | 0.17                 | 0.83                  |                      |                      |                         | 0.10                 | 0.90                  |                      |                      |                         |

TABLE 3.11

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement, the ALL population

|   | Reading engagement |        |                |        |                   |        |            |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 1            |        |                |        |                   |        |            |        |
|   | Percentage         |        | Mean scores    |        |                   |        |            |        |
|   | %                  | S.E.   | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |                    | Score  | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall   | 49.3               | (1.1)  | <b>286</b>     | (1.9)  | <b>286</b>        | (2.0)  | <b>279</b> | (2.3)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |            |        |
| Male  | 43.7               | (1.3)  | <b>286</b>     | (2.3)  | <b>292</b>        | (2.7)  | <b>292</b> | (2.8)  |
| Female  | 54.8               | (1.6)  | <b>286</b>     | (2.0)  | <b>282</b>        | (2.1)  | <b>269</b> | (2.5)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |            |        |
| Native  | 48.8               | (1.1)  | <b>294</b>     | (1.8)  | <b>293</b>        | (1.9)  | <b>285</b> | (2.1)  |
| Non-native  | 43.6               | (2.6)  | <b>258</b>     | (4.9)  | <b>265</b>        | (5.7)  | <b>267</b> | (5.8)  |
| <b>Race</b>   |                    |        |                |        |                   |        |            |        |
| White   | 50.6               | (1.1)  | <b>292</b>     | (1.9)  | <b>292</b>        | (1.9)  | <b>285</b> | (2.0)  |
| Black   | 35.1               | (2.9)  | <b>258</b>     | (3.8)  | <b>252</b>        | (4.6)  | <b>242</b> | (5.6)  |
| Asian   | 64.7               | (6.3)  | <b>261</b>     | (6.0)  | <b>269</b>        | (7.1)  | <b>270</b> | (9.2)  |
| Other   | 65.0               | (13.0) | 267            | (16.4) | 263               | (14.6) | 266        | (20.0) |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |            |        |
| Hispanic  | 32.9               | (3.0)  | <b>243</b>     | (4.4)  | <b>245</b>        | (4.9)  | <b>237</b> | (4.5)  |
| Non-Hispanic  | 51.5               | (1.3)  | <b>290</b>     | (2.0)  | <b>290</b>        | (2.1)  | <b>283</b> | (2.3)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |            |        |
| English   | 49.4               | (1.2)  | <b>295</b>     | (1.8)  | <b>294</b>        | (1.9)  | <b>286</b> | (2.2)  |
| Spanish   | 23.0               | (3.3)  | <b>225</b>     | (6.1)  | <b>227</b>        | (7.4)  | <b>224</b> | (6.4)  |
| European  | 67.2               | (5.9)  | <b>267</b>     | (7.4)  | <b>272</b>        | (7.6)  | <b>272</b> | (6.7)  |
| Asian   | 59.7               | (7.3)  | 261            | (12.2) | 271               | (13.1) | 281        | (12.4) |
| Other   | 52.5               | (8.1)  | <b>257</b>     | (10.2) | <b>264</b>        | (10.8) | <b>263</b> | (14.1) |
| <b>Age</b>  |                    |        |                |        |                   |        |            |        |
| 16 to 25  | 40.1               | (2.1)  | <b>285</b>     | (3.6)  | <b>290</b>        | (3.6)  | <b>283</b> | (4.8)  |
| 26 to 35  | 47.7               | (2.1)  | <b>286</b>     | (2.8)  | <b>290</b>        | (3.1)  | <b>282</b> | (3.3)  |
| 36 to 45  | 53.4               | (2.3)  | <b>287</b>     | (3.3)  | <b>288</b>        | (3.3)  | <b>280</b> | (3.8)  |
| 46 to 55  | 55.7               | (1.9)  | <b>289</b>     | (3.6)  | <b>286</b>        | (3.6)  | <b>279</b> | (3.5)  |
| 56 to 65  | 49.3               | (2.3)  | <b>280</b>     | (2.7)  | <b>275</b>        | (2.9)  | <b>270</b> | (4.0)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |            |        |
| Less than high school   | 37.3               | (1.2)  | <b>280</b>     | (1.9)  | <b>278</b>        | (2.0)  | <b>268</b> | (2.0)  |
| High school   | 41.5               | (5.2)  | 269            | (5.2)  | 270               | (5.5)  | 250        | (7.7)  |
| More than high school   | 73.8               | (1.8)  | <b>311</b>     | (1.9)  | <b>311</b>        | (2.1)  | <b>305</b> | (2.6)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |            |        |
| Less than high school   | 44.1               | (3.2)  | <b>229</b>     | (4.2)  | <b>234</b>        | (5.1)  | <b>230</b> | (5.7)  |
| High school   | 28.9               | (11.0) | 193            | (31.5) | 205               | (19.9) | 184        | (21.2) |
| More than high school   | 69.2               | (4.4)  | <b>273</b>     | (4.9)  | <b>281</b>        | (5.9)  | <b>284</b> | (7.4)  |

TABLE 3.11 (CONTINUED)

**Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement, the ALL population**

|   | Reading engagement |        |                |        |                   |        |          |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 2            |        |                |        |                   |        |          |        |
|   | Mean scores        |        |                |        |                   |        |          |        |
|   | Percentage         |        | Prose literacy |        | Document literacy |        | Numeracy |        |
|   | %                  | S.E.   | Score          | S.E.   | Score             | S.E.   | Score    | S.E.   |
| Overall   | 21.8               | (0.8)  | 257            | (2.2)  | 257               | (2.4)  | 245      | (2.4)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |          |        |
| Male  | 26.4               | (1.3)  | 259            | (3.5)  | 263               | (3.7)  | 256      | (3.5)  |
| Female  | 17.3               | (1.0)  | 252            | (2.4)  | 248               | (2.3)  | 229      | (2.7)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |          |        |
| Native  | 22.9               | (0.9)  | 262            | (2.1)  | 261               | (2.3)  | 249      | (2.5)  |
| Non-native  | 18.8               | (1.5)  | 218            | (8.2)  | 225               | (8.5)  | 217      | (7.7)  |
| <b>Race</b>   |                    |        |                |        |                   |        |          |        |
| White   | 21.6               | (0.9)  | 260            | (2.5)  | 261               | (2.6)  | 250      | (2.5)  |
| Black   | 26.9               | (2.5)  | 242            | (5.3)  | 239               | (5.7)  | 221      | (6.6)  |
| Asian   | 13.0               | (4.3)  | 248            | (12.2) | 255               | (12.3) | 249      | (14.0) |
| Other   | 4.2                | (4.4)  | 227            | (35.1) | 241               | (51.8) | 232      | (42.4) |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |          |        |
| Hispanic  | 26.5               | (2.1)  | 221            | (6.3)  | 222               | (6.4)  | 212      | (5.4)  |
| Non-Hispanic  | 21.1               | (0.9)  | 263            | (2.2)  | 263               | (2.2)  | 251      | (2.6)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |          |        |
| English   | 22.0               | (0.9)  | 263            | (2.2)  | 263               | (2.3)  | 251      | (2.5)  |
| Spanish   | 30.1               | (2.9)  | 210            | (8.0)  | 211               | (7.8)  | 200      | (6.0)  |
| European  | 14.9               | (4.0)  | 240            | (10.4) | 234               | (11.8) | 232      | (16.1) |
| Asian   | 15.3               | (6.7)  | 237            | (15.2) | 247               | (22.4) | 245      | (29.7) |
| Other   | 23.1               | (6.9)  | 249            | (17.2) | 250               | (14.1) | 240      | (13.0) |
| <b>Age</b>  |                    |        |                |        |                   |        |          |        |
| 16 to 25  | 16.4               | (1.4)  | 261            | (4.5)  | 264               | (5.8)  | 246      | (4.9)  |
| 26 to 35  | 22.6               | (1.3)  | 261            | (4.9)  | 266               | (4.8)  | 249      | (5.4)  |
| 36 to 45  | 20.0               | (1.4)  | 258            | (4.5)  | 258               | (4.8)  | 247      | (4.8)  |
| 46 to 55  | 23.6               | (1.9)  | 251            | (4.2)  | 251               | (4.5)  | 243      | (4.5)  |
| 56 to 65  | 29.0               | (2.7)  | 253            | (3.6)  | 246               | (4.1)  | 239      | (4.5)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |          |        |
| Less than high school   | 28.6               | (1.1)  | 258            | (2.6)  | 256               | (3.0)  | 242      | (3.1)  |
| High school   | 29.3               | (4.8)  | 255            | (6.2)  | 262               | (7.0)  | 249      | (8.5)  |
| More than high school   | 10.3               | (1.2)  | 289            | (4.2)  | 291               | (4.2)  | 285      | (4.7)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |          |        |
| Less than high school   | 16.9               | (1.5)  | 211            | (9.7)  | 219               | (10.3) | 209      | (9.3)  |
| High school   | 54.5               | (12.8) | 205            | (18.8) | 211               | (18.5) | 186      | (20.9) |
| More than high school   | 11.7               | (2.9)  | 244            | (13.9) | 250               | (15.5) | 250      | (16.1) |

TABLE 3.11 (CONTINUED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement, the ALL population

|   | Reading engagement |        |                |        |                   |        |          |        |
|---|--------------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 3            |        |                |        |                   |        |          |        |
|   | Percentage         |        | Mean scores    |        |                   |        |          |        |
|   | %                  | S.E.   | Prose literacy |        | Document literacy |        | Numeracy |        |
| Score   |                    |        | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Overall   | 16.5               | (0.7)  | 273            | (2.0)  | 277               | (1.9)  | 267      | (2.3)  |
| <b>Gender</b>   |                    |        |                |        |                   |        |          |        |
| Male  | 14.7               | (1.1)  | 273            | (3.8)  | 282               | (4.0)  | 277      | (4.8)  |
| Female  | 18.2               | (1.2)  | 273            | (2.5)  | 273               | (2.3)  | 259      | (2.8)  |
| <b>Place of birth</b>   |                    |        |                |        |                   |        |          |        |
| Native  | 17.1               | (0.8)  | 277            | (2.0)  | 280               | (1.8)  | 269      | (2.1)  |
| Non-native  | 15.8               | (1.9)  | 249            | (8.1)  | 256               | (7.7)  | 249      | (8.9)  |
| <b>Race</b>   |                    |        |                |        |                   |        |          |        |
| White   | 16.6               | (0.8)  | 277            | (2.0)  | 281               | (1.7)  | 272      | (2.0)  |
| Black   | 16.1               | (1.6)  | 254            | (4.5)  | 255               | (5.8)  | 235      | (6.6)  |
| Asian   | 15.0               | (3.8)  | 279            | (10.1) | 290               | (12.3) | 284      | (15.5) |
| Other   | 25.4               | (11.2) | 245            | (14.9) | 248               | (17.9) | 227      | (17.8) |
| <b>Ethnicity</b>  |                    |        |                |        |                   |        |          |        |
| Hispanic  | 14.5               | (1.5)  | 247            | (9.4)  | 254               | (8.6)  | 239      | (9.7)  |
| Non-Hispanic  | 16.8               | (0.8)  | 276            | (1.9)  | 280               | (1.9)  | 270      | (2.4)  |
| <b>Mother tongue</b>  |                    |        |                |        |                   |        |          |        |
| English   | 17.6               | (0.8)  | 279            | (2.0)  | 282               | (1.9)  | 271      | (2.2)  |
| Spanish   | 12.1               | (2.1)  | 220            | (12.9) | 231               | (11.6) | 218      | (12.3) |
| European  | 12.1               | (3.5)  | 204            | (16.9) | 203               | (20.5) | 201      | (19.6) |
| Asian   | 18.6               | (5.7)  | 253            | (10.2) | 267               | (16.4) | 262      | (23.8) |
| Other   | 15.2               | (5.4)  | 270            | (14.3) | 277               | (16.3) | 279      | (13.1) |
| <b>Age</b>  |                    |        |                |        |                   |        |          |        |
| 16 to 25  | 30.6               | (1.8)  | 276            | (3.8)  | 282               | (4.2)  | 269      | (4.6)  |
| 26 to 35  | 17.6               | (1.8)  | 269            | (5.1)  | 274               | (5.0)  | 266      | (5.3)  |
| 36 to 45  | 14.1               | (1.2)  | 274            | (6.2)  | 277               | (6.2)  | 268      | (6.1)  |
| 46 to 55  | 9.5                | (1.4)  | 278            | (7.4)  | 277               | (8.5)  | 266      | (9.3)  |
| 56 to 65  | 8.2                | (1.4)  | 264            | (5.6)  | 260               | (6.1)  | 252      | (8.9)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |        |                |        |                   |        |          |        |
| Less than high school   | 18.3               | (1.0)  | 267            | (2.3)  | 269               | (2.1)  | 258      | (2.4)  |
| High school   | 20.0               | (4.1)  | 275            | (5.6)  | 289               | (8.0)  | 260      | (6.3)  |
| More than high school   | 14.3               | (1.1)  | 305            | (3.4)  | 309               | (3.9)  | 302      | (3.6)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |        |                |        |                   |        |          |        |
| Less than high school   | 11.9               | (2.3)  | 227            | (9.9)  | 234               | (9.0)  | 226      | (11.1) |
| High school   | 16.6               | (7.8)  | 185            | (31.9) | 212               | (21.3) | 186      | (28.0) |
| More than high school   | 17.1               | (3.2)  | 283            | (9.9)  | 289               | (10.2) | 284      | (11.2) |

TABLE 3.11 (CONCLUDED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on reading engagement, the ALL population

|   | Reading engagement |       |                |        |                   |        |            |        |
|---|--------------------|-------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 4            |       |                |        |                   |        |            |        |
|   | Percentage         |       | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   | %                  | S.E.  | Score          | S.E.   | Score             | S.E.   | Score      | S.E.   |
| Overall   | 12.4               | (0.9) | <b>215</b>     | (3.8)  | <b>217</b>        | (3.9)  | <b>208</b> | (3.8)  |
| <b>Gender</b>   |                    |       |                |        |                   |        |            |        |
| Male  | 15.3               | (1.5) | <b>215</b>     | (4.0)  | <b>220</b>        | (3.8)  | <b>214</b> | (3.9)  |
| Female  | 9.6                | (0.7) | <b>215</b>     | (5.5)  | <b>213</b>        | (5.8)  | <b>199</b> | (5.1)  |
| <b>Place of birth</b>   |                    |       |                |        |                   |        |            |        |
| Native  | 11.1               | (1.0) | <b>224</b>     | (3.7)  | <b>225</b>        | (3.9)  | <b>215</b> | (3.6)  |
| Non-native  | 21.8               | (2.3) | <b>188</b>     | (7.3)  | <b>196</b>        | (7.6)  | <b>188</b> | (7.0)  |
| <b>Race</b>   |                    |       |                |        |                   |        |            |        |
| White   | 11.2               | (1.0) | <b>221</b>     | (4.2)  | <b>224</b>        | (4.6)  | <b>215</b> | (4.4)  |
| Black   | 21.8               | (3.6) | <b>203</b>     | (7.6)  | <b>201</b>        | (7.2)  | <b>189</b> | (7.2)  |
| Asian   | 7.3                | (3.1) | <b>173</b>     | (10.2) | <b>180</b>        | (8.5)  | <b>179</b> | (10.3) |
| Other   | 5.3                | (5.6) | 250            | (16.5) | 270               | (15.7) | 252        | (15.2) |
| <b>Ethnicity</b>  |                    |       |                |        |                   |        |            |        |
| Hispanic  | 26.0               | (2.5) | <b>193</b>     | (5.4)  | <b>201</b>        | (5.9)  | <b>191</b> | (5.9)  |
| Non-Hispanic  | 10.5               | (1.0) | <b>223</b>     | (4.1)  | <b>223</b>        | (4.4)  | <b>214</b> | (4.0)  |
| <b>Mother tongue</b>  |                    |       |                |        |                   |        |            |        |
| English   | 11.1               | (1.0) | <b>226</b>     | (3.6)  | <b>226</b>        | (4.2)  | <b>216</b> | (3.7)  |
| Spanish   | 34.9               | (3.7) | <b>187</b>     | (5.8)  | <b>196</b>        | (6.2)  | <b>187</b> | (6.1)  |
| European  | 5.7                | (2.7) | <b>167</b>     | (31.1) | <b>163</b>        | (38.0) | <b>178</b> | (30.3) |
| Asian   | 6.4                | (5.1) | 185            | (53.0) | 198               | (70.0) | 180        | (53.8) |
| Other   | 9.2                | (4.4) | <b>171</b>     | (13.9) | <b>177</b>        | (11.4) | <b>181</b> | (13.6) |
| <b>Age</b>  |                    |       |                |        |                   |        |            |        |
| 16 to 25  | 13.0               | (1.4) | <b>224</b>     | (5.7)  | <b>231</b>        | (5.4)  | <b>215</b> | (4.6)  |
| 26 to 35  | 12.1               | (1.8) | <b>218</b>     | (7.3)  | <b>222</b>        | (6.3)  | <b>214</b> | (7.8)  |
| 36 to 45  | 12.6               | (1.4) | <b>220</b>     | (8.3)  | <b>223</b>        | (7.9)  | <b>214</b> | (8.3)  |
| 46 to 55  | 11.2               | (1.7) | <b>209</b>     | (6.0)  | <b>208</b>        | (5.2)  | <b>199</b> | (5.7)  |
| 56 to 65  | 13.5               | (1.6) | <b>198</b>     | (7.9)  | <b>195</b>        | (9.7)  | <b>192</b> | (8.0)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                    |       |                |        |                   |        |            |        |
| Less than high school   | 15.8               | (1.4) | <b>222</b>     | (3.9)  | <b>222</b>        | (4.1)  | <b>212</b> | (3.8)  |
| High school   | 9.2                | (2.8) | 244            | (12.2) | 257               | (15.3) | 235        | (16.4) |
| More than high school   | 1.5                | (0.4) | <b>259</b>     | (9.6)  | <b>257</b>        | (7.6)  | <b>261</b> | (10.6) |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                    |       |                |        |                   |        |            |        |
| Less than high school   | 27.1               | (3.0) | <b>189</b>     | (7.5)  | <b>197</b>        | (7.6)  | <b>190</b> | (7.0)  |
| High school   | 0.0                | (0.0) | n.a.           | n.a.   | n.a.              | n.a.   | n.a.       | n.a.   |
| More than high school   | 2.0                | (1.2) | <b>194</b>     | (16.5) | <b>209</b>        | (18.2) | <b>190</b> | (21.4) |

n.a. not applicable

Note: Bold values indicate that the difference between the average score from Class 1 and the average score from Class 4 is statistically significant at 0.05 level.

<sup>a</sup> Educational attainment of native learners considers education completed in the United States.

<sup>b</sup> Educational attainment of non-native learners considers education completed in their own country, prior to immigration.

TABLE 3.12

Latent class analysis for adults based on wealth, ALL population

| Wealth classes:   | Class 1       |      | Class 2       |      | Class 3       |      |
|---|---------------|------|---------------|------|---------------|------|
|   | Probabilities |      | Probabilities |      | Probabilities |      |
|   | Yes           | No   | Yes           | No   | Yes           | No   |
| <b>During the past year, did you receive any income from:</b> |               |      |               |      |               |      |
| Wages or salaries?  | 0.88          | 0.12 | 0.28          | 0.72 | 0.91          | 0.09 |
| Self-employment?  | 0.12          | 0.88 | 0.07          | 0.93 | 0.37          | 0.63 |
| Interest, dividends, capital gains or other investments?      | 0.14          | 0.86 | 0.14          | 0.86 | 0.86          | 0.14 |
| Social security payments?                                     | 0.00          | 1.00 | 0.52          | 0.48 | 0.05          | 0.95 |
| Employment insurance benefits?                                | 0.07          | 0.93 | 0.04          | 0.96 | 0.08          | 0.92 |
| SSI payments?   | 0.00          | 1.00 | 0.30          | 0.70 | 0.00          | 1.00 |
| Other government sources?                                     | 0.04          | 0.96 | 0.13          | 0.87 | 0.01          | 1.00 |
| Pension or retirement income?                                 | 0.01          | 0.99 | 0.18          | 0.82 | 0.13          | 0.87 |

TABLE 3.13

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth, ALL population

|   | Wealth     |        |                |        |                   |        |            |        |
|---|------------|--------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 1    |        |                |        |                   |        |            |        |
|   | Percentage |        | Mean scores    |        |                   |        |            |        |
|   | %          | S.E.   | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |            | Score  | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall   | 65.3       | (1.0)  | <b>262</b>     | (1.6)  | <b>264</b>        | (1.6)  | <b>252</b> | (1.9)  |
| <b>Gender</b>   |            |        |                |        |                   |        |            |        |
| Male  | 62.4       | (1.2)  | <b>258</b>     | (2.4)  | <b>263</b>        | (2.6)  | <b>257</b> | (2.7)  |
| Female  | 68.2       | (1.2)  | <b>266</b>     | (2.0)  | <b>264</b>        | (1.8)  | <b>248</b> | (2.3)  |
| <b>Place of birth</b>   |            |        |                |        |                   |        |            |        |
| Native  | 62.3       | (1.1)  | <b>272</b>     | (1.5)  | <b>272</b>        | (1.5)  | <b>259</b> | (1.7)  |
| Non-native  | 77.2       | (1.9)  | 224            | (5.0)  | 231               | (5.6)  | 226        | (5.7)  |
| <b>Race</b>   |            |        |                |        |                   |        |            |        |
| White   | 63.5       | (1.1)  | <b>267</b>     | (1.6)  | <b>269</b>        | (1.7)  | <b>257</b> | (1.9)  |
| Black   | 72.5       | (2.4)  | <b>245</b>     | (4.0)  | <b>242</b>        | (3.7)  | <b>227</b> | (3.9)  |
| Asian   | 72.6       | (4.3)  | 246            | (8.3)  | 255               | (9.4)  | 251        | (9.8)  |
| Other   | 69.5       | (10.5) | 242            | (10.5) | 248               | (13.3) | 234        | (14.8) |
| <b>Ethnicity</b>  |            |        |                |        |                   |        |            |        |
| Hispanic  | 84.9       | (1.7)  | 220            | (4.2)  | 225               | (4.2)  | 214        | (3.5)  |
| Non-Hispanic  | 62.7       | (1.1)  | <b>270</b>     | (1.4)  | <b>271</b>        | (1.5)  | <b>259</b> | (1.8)  |
| <b>Age</b>  |            |        |                |        |                   |        |            |        |
| 16 to 25  | 84.6       | (1.7)  | <b>267</b>     | (2.8)  | <b>273</b>        | (2.9)  | <b>259</b> | (3.7)  |
| 26 to 35  | 74.6       | (1.6)  | <b>262</b>     | (2.6)  | <b>266</b>        | (2.7)  | <b>254</b> | (2.6)  |
| 36 to 45  | 66.0       | (1.8)  | <b>264</b>     | (3.5)  | <b>264</b>        | (3.7)  | <b>253</b> | (3.7)  |
| 46 to 55  | 54.6       | (2.4)  | <b>258</b>     | (3.5)  | <b>255</b>        | (3.2)  | <b>245</b> | (3.1)  |
| 56 to 65  | 37.0       | (2.8)  | 251            | (5.0)  | <b>245</b>        | (4.6)  | 235        | (5.1)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |            |        |                |        |                   |        |            |        |
| Less than high school   | 69.8       | (1.2)  | <b>263</b>     | (1.5)  | <b>263</b>        | (1.6)  | <b>250</b> | (1.7)  |
| High school   | 69.0       | (5.6)  | 267            | (4.2)  | 273               | (5.1)  | 251        | (4.7)  |
| More than high school   | 45.7       | (2.3)  | <b>303</b>     | (2.3)  | <b>301</b>        | (2.5)  | <b>291</b> | (2.7)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |            |        |                |        |                   |        |            |        |
| Less than high school   | 86.7       | (2.0)  | 211            | (4.0)  | 219               | (4.1)  | 211        | (4.3)  |
| High school   | 95.4       | (3.8)  | 198            | (18.3) | 209               | (12.1) | 185        | (16.3) |
| More than high school   | 67.0       | (4.3)  | 259            | (5.8)  | 267               | (6.4)  | 265        | (6.7)  |
| <b>Employment status</b>  |            |        |                |        |                   |        |            |        |
| Employed  | 65.4       | (1.3)  | <b>265</b>     | (1.9)  | <b>266</b>        | (2.0)  | <b>255</b> | (2.0)  |
| Unemployed  | 73.6       | (2.1)  | <b>247</b>     | (3.6)  | <b>251</b>        | (3.8)  | <b>231</b> | (4.0)  |
| Not in labor force  | 57.8       | (1.8)  | <b>268</b>     | (3.0)  | <b>270</b>        | (3.1)  | <b>260</b> | (4.1)  |

TABLE 3.13 (CONTINUED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth, ALL population

|   | Wealth     |       |                |        |                   |        |            |        |  |
|---|------------|-------|----------------|--------|-------------------|--------|------------|--------|--|
|   | Class 2    |       |                |        |                   |        |            |        |  |
|   | Percentage |       | Mean scores    |        |                   |        |            |        |  |
|   | %          | S.E.  | Prose literacy |        | Document literacy |        | Numeracy   |        |  |
| Wealth  |            |       | Score          | S.E.   | Score             | S.E.   | Score      | S.E.   |  |
| Overall   | 9.4        | (0.6) | <b>237</b>     | (4.1)  | <b>229</b>        | (4.0)  | <b>219</b> | (3.9)  |  |
| <b>Gender</b>   |            |       |                |        |                   |        |            |        |  |
| Male  | 8.2        | (0.8) | <b>231</b>     | (5.6)  | <b>227</b>        | (5.8)  | <b>222</b> | (6.2)  |  |
| Female  | 10.6       | (0.8) | <b>241</b>     | (4.5)  | <b>231</b>        | (4.4)  | <b>217</b> | (3.8)  |  |
| <b>Place of birth</b>   |            |       |                |        |                   |        |            |        |  |
| Native  | 10.6       | (0.7) | <b>238</b>     | (4.3)  | <b>231</b>        | (4.3)  | <b>219</b> | (4.1)  |  |
| Non-native  | 4.0        | (1.2) | 210            | (10.9) | 210               | (10.2) | 216        | (10.4) |  |
| <b>Race</b>   |            |       |                |        |                   |        |            |        |  |
| White   | 8.6        | (0.7) | <b>247</b>     | (6.4)  | <b>240</b>        | (6.2)  | <b>230</b> | (6.0)  |  |
| Black   | 16.9       | (2.3) | <b>205</b>     | (5.3)  | <b>196</b>        | (5.2)  | <b>181</b> | (5.3)  |  |
| Asian   | 2.5        | (1.3) | 218            | (49.4) | 232               | (43.9) | 244        | (28.9) |  |
| Other   | 5.1        | (3.0) | 254            | (16.7) | 233               | (5.9)  | 233        | (10.3) |  |
| <b>Ethnicity</b>  |            |       |                |        |                   |        |            |        |  |
| Hispanic  | 7.0        | (1.4) | 226            | (9.0)  | 220               | (9.7)  | 215        | (10.3) |  |
| Non-Hispanic  | 9.7        | (0.7) | <b>238</b>     | (4.3)  | <b>231</b>        | (4.3)  | <b>220</b> | (4.1)  |  |
| <b>Age</b>  |            |       |                |        |                   |        |            |        |  |
| 16 to 25  | 5.2        | (0.9) | <b>240</b>     | (9.3)  | <b>239</b>        | (8.7)  | <b>228</b> | (9.5)  |  |
| 26 to 35  | 5.1        | (0.7) | <b>235</b>     | (10.7) | <b>234</b>        | (11.6) | <b>218</b> | (9.1)  |  |
| 36 to 45  | 6.5        | (0.6) | <b>228</b>     | (7.2)  | <b>224</b>        | (7.8)  | <b>211</b> | (9.2)  |  |
| 46 to 55  | 9.4        | (1.2) | <b>234</b>     | (6.4)  | <b>224</b>        | (5.8)  | <b>213</b> | (5.5)  |  |
| 56 to 65  | 27.6       | (2.0) | 241            | (5.5)  | <b>230</b>        | (5.1)  | 222        | (5.0)  |  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |            |       |                |        |                   |        |            |        |  |
| Less than high school   | 13.2       | (0.9) | <b>230</b>     | (4.8)  | <b>222</b>        | (4.6)  | <b>210</b> | (4.4)  |  |
| High school   | 11.8       | (3.2) | 258            | (15.2) | 254               | (16.2) | 231        | (21.5) |  |
| More than high school   | 5.1        | (0.7) | <b>279</b>     | (6.7)  | <b>271</b>        | (7.2)  | <b>265</b> | (6.9)  |  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |            |       |                |        |                   |        |            |        |  |
| Less than high school   | 4.5        | (1.4) | 201            | (12.1) | 201               | (9.8)  | 210        | (12.1) |  |
| High school   | 0.0        | (0.0) | n.a.           | n.a.   | n.a.              | n.a.   | n.a.       | n.a.   |  |
| More than high school   | 1.6        | (0.8) | 255            | (8.1)  | 259               | (17.6) | 248        | (21.9) |  |
| <b>Employment status</b>  |            |       |                |        |                   |        |            |        |  |
| Employed  | 2.5        | (0.3) | <b>253</b>     | (5.2)  | <b>251</b>        | (4.5)  | <b>239</b> | (6.8)  |  |
| Unemployed  | 16.9       | (1.6) | <b>221</b>     | (6.6)  | <b>216</b>        | (6.2)  | <b>200</b> | (6.6)  |  |
| Not in labor force  | 29.4       | (2.1) | <b>236</b>     | (5.1)  | <b>227</b>        | (5.2)  | <b>218</b> | (4.8)  |  |

TABLE 3.13 (CONCLUDED)

**Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on wealth, ALL population**

|   | Wealth     |        |                |        |                   |        |          |        |
|---|------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 3    |        |                |        |                   |        |          |        |
|   | Percentage |        | Mean scores    |        |                   |        |          |        |
|   | %          | S.E.   | Prose literacy |        | Document literacy |        | Numeracy |        |
| Score   |            |        | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Wealth  |            |        |                |        |                   |        |          |        |
| Overall   | 25.2       | (1.0)  | 297            | (2.2)  | 301               | (2.2)  | 299      | (2.0)  |
| <b>Gender</b>   |            |        |                |        |                   |        |          |        |
| Male  | 29.3       | (1.4)  | 295            | (2.9)  | 302               | (3.1)  | 306      | (2.8)  |
| Female  | 21.3       | (1.2)  | 301            | (2.4)  | 299               | (2.3)  | 291      | (2.3)  |
| <b>Place of birth</b>   |            |        |                |        |                   |        |          |        |
| Native  | 27.1       | (1.1)  | 299            | (2.1)  | 303               | (2.3)  | 301      | (2.1)  |
| Non-native  | 18.8       | (1.8)  | 279            | (6.1)  | 287               | (6.7)  | 290      | (5.8)  |
| <b>Race</b>   |            |        |                |        |                   |        |          |        |
| White   | 27.9       | (1.1)  | 300            | (2.3)  | 303               | (2.4)  | 301      | (2.1)  |
| Black   | 10.6       | (2.3)  | 267            | (7.5)  | 271               | (7.1)  | 269      | (7.7)  |
| Asian   | 24.8       | (3.9)  | 287            | (5.0)  | 293               | (5.7)  | 298      | (6.2)  |
| Other   | 25.3       | (10.8) | 305            | (16.0) | 292               | (15.1) | 312      | (21.0) |
| <b>Ethnicity</b>  |            |        |                |        |                   |        |          |        |
| Hispanic  | 8.2        | (1.1)  | 273            | (10.2) | 278               | (11.2) | 273      | (12.4) |
| Non-Hispanic  | 27.6       | (1.0)  | 298            | (2.3)  | 302               | (2.2)  | 301      | (2.0)  |
| <b>Age</b>  |            |        |                |        |                   |        |          |        |
| 16 to 25  | 10.2       | (1.5)  | 312            | (4.1)  | 317               | (5.3)  | 318      | (5.9)  |
| 26 to 35  | 20.3       | (1.7)  | 305            | (2.8)  | 311               | (3.4)  | 312      | (3.1)  |
| 36 to 45  | 27.5       | (1.8)  | 298            | (2.7)  | 303               | (2.7)  | 301      | (2.8)  |
| 46 to 55  | 36.0       | (2.6)  | 297            | (4.2)  | 300               | (3.8)  | 296      | (4.0)  |
| 56 to 65  | 35.4       | (2.5)  | 283            | (4.4)  | 283               | (5.2)  | 284      | (4.7)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |            |        |                |        |                   |        |          |        |
| Less than high school   | 17.0       | (1.2)  | 282            | (3.0)  | 284               | (3.0)  | 282      | (3.3)  |
| High school   | 19.2       | (4.2)  | 257            | (9.2)  | 270               | (11.4) | 263      | (8.7)  |
| More than high school   | 49.2       | (2.4)  | 314            | (2.2)  | 318               | (2.5)  | 316      | (2.1)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |            |        |                |        |                   |        |          |        |
| Less than high school   | 8.8        | (1.8)  | 257            | (9.2)  | 262               | (7.8)  | 259      | (9.9)  |
| High school   | 4.6        | (3.8)  | 198            | (8.9)  | 205               | (11.8) | 188      | (12.8) |
| More than high school   | 31.3       | (4.4)  | 292            | (6.2)  | 301               | (7.8)  | 308      | (8.1)  |
| <b>Employment status</b>  |            |        |                |        |                   |        |          |        |
| Employed  | 32.1       | (1.3)  | 298            | (2.2)  | 302               | (2.2)  | 300      | (2.0)  |
| Unemployed  | 9.5        | (1.9)  | 281            | (9.0)  | 291               | (8.6)  | 284      | (10.1) |
| Not in labor force  | 12.8       | (1.4)  | 299            | (5.4)  | 299               | (5.3)  | 297      | (5.5)  |

n.a. not applicable

**Note:** Bold values indicate that the difference between the average score from Class 1 and the average score from Class 2 is statistically significant at 0.05 level.

<sup>a</sup> Educational attainment of native learners considers education completed in the United States.

<sup>b</sup> Educational attainment of non-native learners considers education completed in their own country, prior to immigration.

TABLE 3.14

Latent class analysis for adults based on health, ALL population

| Health classes  | Class 1                    |                              |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   | Probabilities              |                              |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.50                       | 0.46                         | 0.02                                      | 0.01                        | 0.00                         |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.55                       | 0.29                         | 0.15                                      | 0.01                        | 0.00                         |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.01                       | 0.02                         | 0.97                                      |                             |                              |                         |
| Climbing several flights of stairs  | 0.01                       | 0.01                         | 0.98                                      |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.03                       | 0.97                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.01                       | 0.99                         |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.02                       | 0.98                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.02                       | 0.98                         |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.86                       | 0.12                         | 0.01                                      | 0.01                        | 0.00                         |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.30                       | 0.58                         | 0.07                                      | 0.03                        | 0.02                         | 0.00                    |
| Did you have a lot of energy? Would that be...  | 0.35                       | 0.56                         | 0.08                                      | 0.01                        | 0.00                         | 0.00                    |
| Have you felt downhearted and blue? Would that be....   | 0.01                       | 0.01                         | 0.00                                      | 0.03                        | 0.26                         | 0.69                    |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>none of the time</b>      |                         |
|   | 0.01                       | 0.01                         | 0.01                                      | 0.03                        | 0.95                         |                         |

TABLE 3.14 (CONTINUED)

## Latent class analysis for adults based on health, ALL population

| Health classes  | Class 2                    |                              |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   | Probabilities              |                              |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.14                       | 0.70                         | 0.12                                      | 0.03                        | 0.01                         |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.16                       | 0.40                         | 0.36                                      | 0.08                        | 0.00                         |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.00                       | 0.06                         | 0.94                                      |                             |                              |                         |
| Climbing several flights of stairs  | 0.01                       | 0.07                         | 0.92                                      |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.06                       | 0.94                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.02                       | 0.98                         |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.05                       | 0.95                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.04                       | 0.96                         |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.68                       | 0.26                         | 0.05                                      | 0.01                        | 0.00                         |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.03                       | 0.48                         | 0.27                                      | 0.18                        | 0.04                         | 0.00                    |
| Did you have a lot of energy? Would that be...  | 0.03                       | 0.47                         | 0.30                                      | 0.17                        | 0.02                         | 0.00                    |
| Have you felt downhearted and blue? Would that be....   | 0.00                       | 0.01                         | 0.03                                      | 0.17                        | 0.51                         | 0.28                    |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>none of the time</b>      |                         |
|   | 0.00                       | 0.01                         | 0.03                                      | 0.14                        | 0.82                         |                         |

**TABLE 3.14 (CONTINUED)**

**Latent class analysis for adults based on health, ALL population**

| Health classes  | Class 3                    |                              |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   | Probabilities              |                              |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.09                       | 0.45                         | 0.26                                      | 0.17                        | 0.03                         |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.10                       | 0.22                         | 0.43                                      | 0.25                        | 0.01                         |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.04                       | 0.22                         | 0.74                                      |                             |                              |                         |
| Climbing several flights of stairs  | 0.06                       | 0.17                         | 0.77                                      |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.50                       | 0.50                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.36                       | 0.64                         |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.50                       | 0.50                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.33                       | 0.67                         |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.33                       | 0.32                         | 0.21                                      | 0.11                        | 0.03                         |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.04                       | 0.21                         | 0.17                                      | 0.35                        | 0.18                         | 0.04                    |
| Did you have a lot of energy? Would that be...  | 0.05                       | 0.17                         | 0.23                                      | 0.35                        | 0.16                         | 0.04                    |
| Have you felt downhearted and blue? Would that be....   | 0.03                       | 0.09                         | 0.14                                      | 0.31                        | 0.27                         | 0.15                    |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>none of the time</b>      |                         |
|   | 0.04                       | 0.07                         | 0.25                                      | 0.28                        | 0.36                         |                         |

TABLE 3.14 (CONCLUDED)

## Latent class analysis for adults based on health, ALL population

| Health classes  | Class 4                    |                              |   |                             |                              |                         |
|---|----------------------------|------------------------------|---|-----------------------------|------------------------------|-------------------------|
|   | Probabilities              |                              |   |                             |                              |                         |
| <b>On the whole, how do you feel about your life over the past 12 months? Would you say that you are....</b>  | <b>Extremely satisfied</b> | <b>Satisfied</b>             | <b>Neither satisfied nor dissatisfied</b> | <b>Unsatisfied</b>          | <b>Extremely unsatisfied</b> |                         |
|   | 0.06                       | 0.29                         | 0.18                                      | 0.31                        | 0.15                         |                         |
| <b>In general, would you say your health is....</b>   | <b>Excellent</b>           | <b>Very good</b>             | <b>Good</b>                               | <b>Fair</b>                 | <b>Poor</b>                  |                         |
|   | 0.02                       | 0.05                         | 0.15                                      | 0.38                        | 0.40                         |                         |
| <b>Does your health now limit you in these activities?</b>  | <b>Yes, limited a lot</b>  | <b>Yes, limited a little</b> | <b>No not limited at all</b>              |                             |                              |                         |
| Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf?   | 0.62                       | 0.30                         | 0.08                                      |                             |                              |                         |
| Climbing several flights of stairs  | 0.70                       | 0.19                         | 0.12                                      |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>                                | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.93                       | 0.07                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.97                       | 0.03                         |   |                             |                              |                         |
| <b>During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems?</b>                              | <b>Yes</b>                 | <b>No</b>                    |   |                             |                              |                         |
| Accomplished less than you would like   | 0.67                       | 0.33                         |   |                             |                              |                         |
| Were limited in the kind of work or other activities  | 0.48                       | 0.52                         |   |                             |                              |                         |
| <b>During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? Was this...</b>   | <b>Not at all</b>          | <b>A little bit</b>          | <b>Moderately</b>                         | <b>Quite a bit</b>          | <b>Extremely</b>             |                         |
|   | 0.02                       | 0.12                         | 0.15                                      | 0.45                        | 0.27                         |                         |
|   | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Good bit of the time</b>               | <b>Some of the time</b>     | <b>A little of the time</b>  | <b>None of the time</b> |
| Have you felt calm and peaceful? Would that be...   | 0.03                       | 0.17                         | 0.11                                      | 0.33                        | 0.25                         | 0.11                    |
| Did you have a lot of energy? Would that be...  | 0.01                       | 0.06                         | 0.10                                      | 0.27                        | 0.35                         | 0.21                    |
| Have you felt downhearted and blue? Would that be....   | 0.07                       | 0.18                         | 0.15                                      | 0.31                        | 0.21                         | 0.07                    |
| <b>During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)? Was it....</b> | <b>All of the time</b>     | <b>Most of the time</b>      | <b>Some of the time</b>                   | <b>A little of the time</b> | <b>none of the time</b>      |                         |
|   | 0.13                       | 0.29                         | 0.34                                      | 0.15                        | 0.09                         |                         |

TABLE 3.15

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health, ALL population

|   | Health classes |       |                |       |                   |        |            |        |
|---|----------------|-------|----------------|-------|-------------------|--------|------------|--------|
|   | Class 1        |       |                |       |                   |        |            |        |
|   | Percentage     |       | Mean scores    |       |                   |        |            |        |
|   | %              | S.E.  | Prose literacy |       | Document literacy |        | Numeracy   |        |
|   |                | Score | S.E.           | Score | S.E.              | Score  | S.E.       |        |
| Overall   | 23.6           | (0.7) | <b>272</b>     | (1.9) | <b>273</b>        | (2.1)  | <b>265</b> | (2.2)  |
| <b>Gender</b>   |                |       |                |       |                   |        |            |        |
| Male  | 25.6           | (1.0) | <b>267</b>     | (2.6) | <b>272</b>        | (2.9)  | <b>270</b> | (3.2)  |
| Female  | 21.7           | (1.2) | <b>278</b>     | (3.5) | <b>275</b>        | (3.8)  | <b>260</b> | (4.0)  |
| <b>Place of birth</b>   |                |       |                |       |                   |        |            |        |
| Native  | 23.5           | (0.8) | <b>281</b>     | (2.0) | <b>281</b>        | (2.2)  | <b>272</b> | (2.5)  |
| Non-native  | 28.6           | (2.1) | 229            | (5.3) | 235               | (4.6)  | <b>234</b> | (5.1)  |
| <b>Age</b>  |                |       |                |       |                   |        |            |        |
| 16 to 25  | 26.3           | (2.0) | <b>272</b>     | (4.7) | <b>277</b>        | (4.3)  | <b>268</b> | (5.4)  |
| 26 to 35  | 25.3           | (1.4) | 268            | (5.1) | 271               | (5.2)  | <b>261</b> | (5.3)  |
| 36 to 45  | 23.1           | (1.2) | <b>273</b>     | (4.2) | <b>274</b>        | (4.8)  | <b>268</b> | (4.1)  |
| 46 to 55  | 21.1           | (1.9) | <b>278</b>     | (3.7) | <b>277</b>        | (3.9)  | <b>267</b> | (4.8)  |
| 56 to 65  | 21.8           | (2.6) | <b>266</b>     | (4.2) | <b>263</b>        | (5.0)  | <b>261</b> | (4.8)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                |       |                |       |                   |        |            |        |
| Less than high school   | 20.7           | (1.0) | <b>262</b>     | (2.0) | <b>262</b>        | (2.1)  | <b>250</b> | (2.8)  |
| High school   | 21.8           | (3.1) | 268            | (6.0) | 277               | (9.3)  | 258        | (6.3)  |
| More than high school   | 29.4           | (1.7) | <b>310</b>     | (2.7) | 211               | (3.7)  | <b>306</b> | (2.9)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                |       |                |       |                   |        |            |        |
| Less than high school   | 24.5           | (2.4) | <b>208</b>     | (8.1) | 213               | (7.2)  | <b>208</b> | (7.8)  |
| High school   | 24.4           | (4.6) | 274            | (6.3) | 215               | (24.0) | 194        | (30.5) |
| More than high school   | 24.4           | (4.6) | 274            | (6.3) | 280               | (7.3)  | 289        | (6.9)  |
| <b>Employment status</b>  |                |       |                |       |                   |        |            |        |
| Employed  | 25.8           | (0.9) | <b>273</b>     | (2.6) | <b>275</b>        | (3.0)  | <b>268</b> | (3.0)  |
| Unemployed  | 18.6           | (2.4) | 251            | (8.9) | 256               | (9.7)  | 237        | (11.1) |
| Not in labor force  | 21.7           | (1.9) | <b>273</b>     | (4.7) | <b>273</b>        | (4.6)  | <b>265</b> | (2.2)  |

TABLE 3.15 (CONTINUED)

**Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health, ALL population**

|   | Health classes |        |                |        |                   |        |          |        |
|---|----------------|--------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 2        |        |                |        |                   |        |          |        |
|   | Percentage     |        | Mean scores    |        |                   |        |          |        |
|   | %              | S.E.   | Prose literacy |        | Document literacy |        | Numeracy |        |
| Score   |                |        | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Overall   | 46.6           | (1.1)  | 276            | (1.6)  | 278               | (1.8)  | 270      | (2.0)  |
| <b>Gender</b>   |                |        |                |        |                   |        |          |        |
| Male  | 48.6           | (1.4)  | 274            | (2.0)  | 281               | (2.3)  | 278      | (2.3)  |
| Female  | 44.8           | (1.7)  | 277            | (2.3)  | 275               | (2.3)  | 261      | (2.5)  |
| <b>Place of birth</b>   |                |        |                |        |                   |        |          |        |
| Native  | 45.1           | (1.1)  | 285            | (1.5)  | 286               | (1.5)  | 277      | (1.7)  |
| Non-native  | 46.3           | (3.2)  | 243            | (4.9)  | 251               | (5.9)  | 249      | (5.4)  |
| <b>Age</b>  |                |        |                |        |                   |        |          |        |
| 16 to 25  | 48.7           | (2.0)  | 276            | (3.0)  | 281               | (3.1)  | 270      | (3.7)  |
| 26 to 35  | 50.0           | (1.8)  | 273            | (2.9)  | 278               | (3.3)  | 270      | (3.5)  |
| 36 to 45  | 45.4           | (1.9)  | 280            | (3.4)  | 283               | (3.7)  | 274      | (3.4)  |
| 46 to 55  | 45.5           | (2.4)  | 276            | (3.9)  | 277               | (3.6)  | 270      | (3.9)  |
| 56 to 65  | 42.2           | (3.0)  | 269            | (3.7)  | 267               | (3.5)  | 260      | (3.8)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                |        |                |        |                   |        |          |        |
| Less than high school   | 43.0           | (1.1)  | 273            | (1.8)  | 273               | (2.0)  | 262      | (1.8)  |
| High school   | 47.3           | (4.0)  | 263            | (7.4)  | 271               | (6.9)  | 253      | (7.9)  |
| More than high school   | 49.3           | (1.6)  | 310            | (2.0)  | 310               | (2.3)  | 306      | (2.5)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                |        |                |        |                   |        |          |        |
| Less than high school   | 53.9           | (4.0)  | 223            | (3.4)  | 231               | (4.5)  | 224      | (4.9)  |
| High school   | 57.8           | (13.5) | 201            | (23.2) | 209               | (18.9) | 192      | (22.5) |
| More than high school   | 55.4           | (5.4)  | 267            | (6.0)  | 276               | (6.1)  | 276      | (7.7)  |
| <b>Employment status</b>  |                |        |                |        |                   |        |          |        |
| Employed  | 49.7           | (1.4)  | 282            | (1.5)  | 284               | (1.8)  | 277      | (1.9)  |
| Unemployed  | 35.2           | (2.9)  | 247            | (5.6)  | 253               | (5.4)  | 237      | (6.0)  |
| Not in labor force  | 35.4           | (2.2)  | 275            | (3.6)  | 276               | (3.8)  | 268      | (4.9)  |

TABLE 3.15 (CONTINUED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health, ALL population

|   | Health classes |       |                |        |                   |        |          |        |
|---|----------------|-------|----------------|--------|-------------------|--------|----------|--------|
|   | Class 3        |       |                |        |                   |        |          |        |
|   | Percentage     |       | Mean scores    |        |                   |        |          |        |
|   | %              | S.E.  | Prose literacy |        | Document literacy |        | Numeracy |        |
| Score   |                |       | S.E.           | Score  | S.E.              | Score  | S.E.     |        |
| Overall   | 20.8           | (0.8) | 262            | (2.3)  | 263               | (2.1)  | 252      | (2.2)  |
| <b>Gender</b>   |                |       |                |        |                   |        |          |        |
| Male  | 18.1           | (1.1) | 257            | (3.1)  | 263               | (2.8)  | 258      | (3.2)  |
| Female  | 23.4           | (1.1) | 266            | (3.2)  | 263               | (3.1)  | 247      | (3.6)  |
| <b>Place of birth</b>   |                |       |                |        |                   |        |          |        |
| Native  | 21.5           | (0.8) | 268            | (2.2)  | 268               | (2.3)  | 256      | (1.9)  |
| Non-native  | 20.2           | (2.0) | 226            | (8.4)  | 234               | (9.1)  | 226      | (9.2)  |
| <b>Age</b>  |                |       |                |        |                   |        |          |        |
| 16 to 25  | 22.5           | (2.1) | 260            | (4.4)  | 268               | (4.7)  | 250      | (5.1)  |
| 26 to 35  | 20.3           | (1.4) | 264            | (5.1)  | 268               | (5.4)  | 256      | (5.0)  |
| 36 to 45  | 21.8           | (1.8) | 262            | (5.0)  | 263               | (5.1)  | 252      | (5.3)  |
| 46 to 55  | 21.8           | (1.6) | 267            | (4.6)  | 263               | (4.4)  | 254      | (4.9)  |
| 56 to 65  | 15.7           | (1.5) | 253            | (6.3)  | 244               | (6.9)  | 240      | (6.3)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                |       |                |        |                   |        |          |        |
| Less than high school   | 24.1           | (1.2) | 257            | (2.5)  | 256               | (2.6)  | 244      | (2.4)  |
| High school   | 16.5           | (3.5) | 266            | (9.5)  | 268               | (10.5) | 246      | (7.4)  |
| More than high school   | 16.9           | (1.0) | 302            | (3.5)  | 303               | (4.3)  | 292      | (4.0)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                |       |                |        |                   |        |          |        |
| Less than high school   | 17.5           | (2.4) | 206            | (7.9)  | 214               | (8.9)  | 204      | (7.7)  |
| High school   | 21.4           | (9.7) | 198            | (15.3) | 205               | (14.9) | 158      | (13.0) |
| More than high school   | 16.2           | (3.5) | 272            | (9.7)  | 282               | (10.3) | 279      | (13.5) |
| <b>Employment status</b>  |                |       |                |        |                   |        |          |        |
| Employed  | 20.4           | (0.9) | 266            | (2.5)  | 267               | (2.0)  | 257      | (2.5)  |
| Unemployed  | 28.4           | (2.4) | 250            | (5.9)  | 252               | (6.5)  | 233      | (6.4)  |
| Not in labor force  | 21.2           | (1.2) | 259            | (5.2)  | 263               | (2.1)  | 247      | (5.8)  |

TABLE 3.15 (CONCLUDED)

Percentage of learners and mean scores on the prose literacy, document literacy and numeracy scales for each latent class based on health, ALL population

|   | Health classes |       |                |        |                   |        |            |        |
|---|----------------|-------|----------------|--------|-------------------|--------|------------|--------|
|   | Class 4        |       |                |        |                   |        |            |        |
|   | Percentage     |       | Mean scores    |        |                   |        |            |        |
|   | %              | S.E.  | Prose literacy |        | Document literacy |        | Numeracy   |        |
|   |                | Score | S.E.           | Score  | S.E.              | Score  | S.E.       |        |
| Overall   | 8.9            | (0.7) | <b>240</b>     | (4.4)  | <b>234</b>        | (4.6)  | <b>225</b> | (4.5)  |
| <b>Gender</b>   |                |       |                |        |                   |        |            |        |
| Male  | 7.7            | (0.9) | <b>238</b>     | (6.8)  | <b>235</b>        | (6.6)  | <b>231</b> | (6.7)  |
| Female  | 10.1           | (0.9) | <b>241</b>     | (4.9)  | <b>234</b>        | (5.0)  | <b>220</b> | (4.8)  |
| <b>Place of birth</b>   |                |       |                |        |                   |        |            |        |
| Native  | 9.9            | (0.8) | <b>243</b>     | (4.7)  | <b>237</b>        | (5.0)  | <b>226</b> | (4.9)  |
| Non-native  | 4.9            | (1.3) | 204            | (10.5) | 207               | (10.7) | <b>203</b> | (10.7) |
| <b>Age</b>  |                |       |                |        |                   |        |            |        |
| 16 to 25  | 2.5            | (0.6) | <b>223</b>     | (17.9) | <b>226</b>        | (16.2) | <b>215</b> | (11.8) |
| 26 to 35  | 4.5            | (0.8) | 256            | (8.7)  | 257               | (8.3)  | <b>240</b> | (9.3)  |
| 36 to 45  | 9.6            | (1.3) | <b>242</b>     | (7.5)  | <b>239</b>        | (7.5)  | <b>228</b> | (8.6)  |
| 46 to 55  | 11.6           | (1.4) | <b>235</b>     | (5.9)  | <b>230</b>        | (6.0)  | <b>222</b> | (6.2)  |
| 56 to 65  | 20.3           | (1.8) | <b>239</b>     | (7.5)  | <b>229</b>        | (7.8)  | <b>221</b> | (7.3)  |
| <b>Educational attainment – Native learners<sup>a</sup></b>     |                |       |                |        |                   |        |            |        |
| Less than high school   | 12.2           | (1.1) | <b>235</b>     | (4.9)  | <b>227</b>        | (2.0)  | <b>218</b> | (5.2)  |
| High school   | 14.4           | (4.1) | 259            | (10.0) | 259               | (12.4) | 238        | (19.6) |
| More than high school   | 4.4            | (0.8) | <b>284</b>     | (5.9)  | 279               | (6.0)  | <b>273</b> | (5.2)  |
| <b>Educational attainment – Non-native learners<sup>b</sup></b> |                |       |                |        |                   |        |            |        |
| Less than high school   | 4.0            | (1.3) | <b>184</b>     | (8.0)  | 191               | (7.9)  | <b>187</b> | (10.1) |
| High school   | 0.0            | (0.0) | n.a.           | n.a.   | n.a.              | n.a.   | n.a.       | n.a.   |
| More than high school   | 4.0            | (1.3) | 254            | (12.3) | 257               | (15.0) | 249        | (15.2) |
| <b>Employment status</b>  |                |       |                |        |                   |        |            |        |
| Employed  | 4.1            | (0.5) | <b>249</b>     | (6.1)  | <b>247</b>        | (4.5)  | <b>241</b> | (5.3)  |
| Unemployed  | 17.8           | (2.0) | 232            | (6.6)  | 230               | (7.3)  | 210        | (7.2)  |
| Not in labor force  | 21.7           | (1.8) | <b>237</b>     | (6.3)  | <b>228</b>        | (6.7)  | <b>220</b> | (6.2)  |

n.a. not applicable

**Note:** Bold values indicate that the difference between the average score from Class 1 and the average score from Class 4 is statistically significant at 0.05 level.

<sup>a</sup> Educational attainment of native learners considers education completed in the United States.

<sup>b</sup> Educational attainment of non-native learners considers education completed in their own country, prior to immigration.





# Appendix B4

## Chapter 4 Tables

### Table of Contents

|           |   |     |
|-----------|---|-----|
| Table 4.1 | Skills in prose and document literacy among adults and adult learners, Hispanic population                      | 311 |
| Table 4.2 | Type of instruction and skills on the prose and document literacy scales, Hispanic population                   | 311 |
| Table 4.3 | Age and skills on the prose and document literacy scales, Hispanic population.                                  | 312 |
| Table 4.4 | Age and skills on the prose and document literacy scales, Hispanic population by nativity                       | 313 |
| Table 4.5 | Place of birth and skills on the prose and document literacy scales, Hispanic population                        | 314 |
| Table 4.6 | Mother tongue and skills on the prose and document literacy scales, Hispanic population                         | 315 |
| Table 4.7 | Mother tongue and skills on the prose and document literacy scales, by place of birth, Hispanic population      | 316 |
| Table 4.8 | Years in the United States and skills on the prose and document literacy scales, non-native Hispanic population | 317 |

## Table of Contents

|            |   |     |
|------------|---|-----|
| Table 4.9  | Perceived ability in English and Spanish and performance on the prose and document literacy scales, Hispanic population             | 318 |
| Table 4.10 | Early problems in school and skills on the prose and document literacy scales, Hispanic population                                  | 320 |
| Table 4.11 | Highest level of education completed in the United States and skills on the prose and document literacy scales, Hispanic population | 321 |
| Table 4.12 | Educational level and skills on the prose and document literacy scales, by place of birth, Hispanic population                      | 323 |
| Table 4.13 | Skills on the prose and document literacy scales for Nuevo Leon, Mexico, ALL  | 323 |

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TABLE 4.1

## Skills in prose and document literacy among adults and adult learners, Hispanic population

| Scale and testing language     | Percentiles                  |       |         |       |         |       |         |       |         |       |       |       |       |
|--------------------------------|------------------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|-------|-------|-------|
|                                | Overall                      |       |         | 10th  |         | 25th  |         | 50th  |         | 75th  |       | 90th  |       |
|                                | Mean score                   | S.E.  | S.D.    | Score | S.E.    | Score | S.E.    | Score | S.E.    | Score | S.E.  | Score | S.E.  |
| <b>Prose literacy scale</b>    |                              |       |         |       |         |       |         |       |         |       |       |       |       |
| English tested                 | 200                          | (2.6) | 62.2    | 113   | (4.5)   | 158   | (4.9)   | 203   | (4.1)   | 245   | (2.0) | 279   | (5.3) |
| Spanish tested                 | 229                          | (8.9) | 62.4    | 151   | (17.1)  | 199   | (8.3)   | 234   | (6.1)   | 271   | (4.6) | 300   | (2.3) |
| <b>Document literacy scale</b> |                              |       |         |       |         |       |         |       |         |       |       |       |       |
| English tested                 | 210                          | (2.0) | 50.5    | 141   | (1.9)   | 172   | (2.2)   | 212   | (1.8)   | 244   | (2.6) | 275   | (2.8) |
| Spanish tested                 | 222                          | (6.1) | 48.6    | 157   | (13.7)  | 191   | (10.1)  | 223   | (4.5)   | 253   | (3.1) | 284   | (8.5) |
| Scale and testing language     | Distribution by skill levels |       |         |       |         |       |         |       |         |       |       |       |       |
|                                | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4 |       | Level 5 |       |       |       |       |
|                                | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %       | S.E.  | %       | S.E.  |       |       |       |
| <b>Prose literacy scale</b>    |                              |       |         |       |         |       |         |       |         |       |       |       |       |
| English tested                 |                              |       | 64.1    | (1.4) | 26.0    | (1.2) | 8.9     | (1.1) | 0.7     | (0.2) | 0.3   | (0.2) |       |
| Spanish tested                 |                              |       | 43.1    | (3.7) | 34.1    | (2.3) | 19.7    | (2.1) | 2.7     | (0.5) | 0.4   | (0.4) |       |
| <b>Document literacy scale</b> |                              |       |         |       |         |       |         |       |         |       |       |       |       |
| English tested                 |                              |       | 60.9    | (1.7) | 29.2    | (1.5) | 9.4     | (1.0) | 0.5     | (0.2) | 0.0   | (0.0) |       |
| Spanish tested                 |                              |       | 50.2    | (3.2) | 37.6    | (2.0) | 11.6    | (2.1) | 0.5     | (0.2) | 0.0   | (0.0) |       |

TABLE 4.2

## Type of instruction and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and type of instruction | Distribution by skill levels |        |            |        |      |         |        |         |        |         |        |           |       |
|---|------------------------------|--------|------------|--------|------|---------|--------|---------|--------|---------|--------|-----------|-------|
|   | Overall                      |        |            |        |      | Level 1 |        | Level 2 |        | Level 3 |        | Level 4/5 |       |
|   | %                            | S.E.   | Mean score | S.E.   | S.D. | %       | S.E.   | %       | S.E.   | %       | S.E.   | %         | S.E.  |
| <b>Prose literacy scale</b>                     |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| <b>English tested</b>                           |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| Adult basic education                           | 21.7                         | (0.0)  | 238        | (6.0)  | 47.1 | 39.3    | 4.1    | 44.2    | (3.1)  | 13.8    | (3.7)  | 2.8       | (1.5) |
| Adult secondary education                       | 10.3                         | (0.0)  | 257        | (5.8)  | 39.4 | 21.9    | (3.4)  | 43.2    | (5.0)  | 32.8    | (6.6)  | 2.1       | (1.3) |
| English as a second language                    | 68.0                         | (0.0)  | 179        | (3.2)  | 57.8 | 78.4    | (1.7)  | 17.6    | (1.4)  | 3.7     | (0.7)  | 0.2       | (0.1) |
| <b>Spanish tested</b>                           |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| Adult basic education                           | 26.1                         | (12.3) | 209        | (32.4) | 84.2 | 50.5    | (15.8) | 25.0    | (11.4) | 20.7    | (7.9)  | 3.8       | (3.0) |
| Adult secondary education                       | 5.9                          | (12.3) | *          | *      | *    | *       | *      | *       | *      | *       | *      | *         | *     |
| English as a second language                    | 68.0                         | (0.0)  | 236        | (3.2)  | 50.8 | 40.6    | (2.4)  | 38.1    | (1.6)  | 18.4    | (1.7)  | 2.9       | (0.6) |
| <b>Document literacy scale</b>                  |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| <b>English tested</b>                           |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| Adult basic education                           | 21.7                         | (0.0)  | 243        | (4.8)  | 40.0 | 32.5    | (5.5)  | 46.5    | (4.8)  | 19.1    | (3.0)  | 1.9       | (1.1) |
| Adult secondary education                       | 10.3                         | (0.0)  | 254        | (3.7)  | 34.7 | 20.4    | (2.2)  | 49.7    | (4.5)  | 29.3    | (5.1)  | 0.6       | (0.5) |
| English as a second language                    | 68.0                         | (0.0)  | 193        | (2.5)  | 46.0 | 76.1    | (1.8)  | 20.6    | (1.5)  | 3.3     | (0.6)  | 0.0       | (0.0) |
| <b>Spanish tested</b>                           |                              |        |            |        |      |         |        |         |        |         |        |           |       |
| Adult basic education                           | 26.1                         | (12.3) | 209        | (21.3) | 61.7 | 54.8    | (11.1) | 29.6    | (1.2)  | 15.6    | (11.2) | 0.0       | (0.0) |
| Adult secondary education                       | 5.9                          | (12.3) | *          | *      | *    | *       | *      | *       | *      | *       | *      | *         | *     |
| English as a second language                    | 68.0                         | (0.0)  | 226        | (2.5)  | 42.1 | 49.2    | (2.2)  | 39.9    | (1.6)  | 10.2    | (1.7)  | 0.8       | (0.3) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.3

Age and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and age     | Percentiles |       |            |        |         |        |           |        |       |        |       |        |       |        |
|-------------------------------------|-------------|-------|------------|--------|---------|--------|-----------|--------|-------|--------|-------|--------|-------|--------|
|                                     | Overall     |       |            |        | 10th    |        | 25th      |        | 50th  |        | 75th  |        | 90th  |        |
|                                     | %           | S.E.  | Mean score | S.E.   | Score   | S.E.   | Score     | S.E.   | Score | S.E.   | Score | S.E.   | Score | S.E.   |
| <b>Prose literacy scale</b>         |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| <b>English tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            | 2.2         | (0.9) | 250        | (6.2)  | 189     | (0.0)  | 213       | (0.2)  | 256   | (0.3)  | 263   | (0.1)  | 304   | (0.1)  |
| 19 to 24                            | 25.3        | (2.1) | 213        | (5.5)  | 137     | (27.7) | 170       | (5.6)  | 218   | (5.2)  | 261   | (7.0)  | 293   | (17.0) |
| 25 to 44                            | 56.7        | (2.1) | 195        | (4.1)  | 110     | (5.6)  | 153       | (6.0)  | 194   | (4.7)  | 238   | (6.9)  | 269   | (7.3)  |
| 45 to 59                            | 13.8        | (1.3) | 194        | (6.8)  | 111     | (2.8)  | 146       | (1.5)  | 199   | (7.4)  | 240   | (3.0)  | 265   | (6.2)  |
| 60 or older                         | 1.3         | (0.3) | 172        | (10.9) | 90      | (21.6) | 112       | (15.9) | 166   | (75.8) | 238   | (35.4) | 266   | (0.2)  |
| <b>Spanish tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            | 0.1         | (0.1) | *          | *      | *       | *      | *         | *      | *     | *      | *     | *      | *     | *      |
| 19 to 24                            | 15.3        | (2.3) | 211        | (16.6) | 129     | (47.9) | 184       | (19.1) | 219   | (3.3)  | 264   | (11.9) | 288   | (9.2)  |
| 25 to 44                            | 66.9        | (4.4) | 235        | (6.3)  | 154     | (15.8) | 205       | (8.2)  | 238   | (3.4)  | 276   | (3.0)  | 305   | (5.9)  |
| 45 to 59                            | 14.9        | (3.7) | 224        | (18.4) | 150     | (40.8) | 191       | (29.8) | 234   | (10.1) | 270   | (11.2) | 295   | (33.3) |
| 60 or older                         | 1.4         | (0.4) | 226        | (12.6) | 141     | (48.4) | 176       | (61.6) | 216   | (0.2)  | 248   | (22.3) | 248   | (24.6) |
| <b>Document literacy scale</b>      |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| <b>English tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            | 2.2         | (0.9) | 229        | (5.6)  | 167     | (0.0)  | 199       | (0.2)  | 218   | (0.2)  | 257   | (0.1)  | 268   | (0.1)  |
| 19 to 24                            | 25.3        | (2.1) | 224        | (6.6)  | 148     | (6.7)  | 189       | (4.4)  | 226   | (6.2)  | 263   | (11.0) | 287   | (14.4) |
| 25 to 44                            | 56.7        | (2.1) | 205        | (3.3)  | 140     | (2.6)  | 168       | (3.4)  | 208   | (3.0)  | 239   | (4.1)  | 270   | (6.4)  |
| 45 to 59                            | 13.8        | (1.3) | 206        | (4.7)  | 140     | (3.9)  | 175       | (2.8)  | 210   | (1.3)  | 240   | (7.0)  | 264   | (6.4)  |
| 60 or older                         | 1.3         | (0.3) | 192        | (8.7)  | 119     | (13.6) | 148       | (33.1) | 177   | (50.2) | 242   | (25.7) | 256   | (0.1)  |
| <b>Spanish tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            | 0.1         | (0.1) | *          | *      | *       | *      | *         | *      | *     | *      | *     | *      | *     | *      |
| 19 to 24                            | 15.3        | (2.3) | 211        | (9.1)  | 140     | (31.0) | 183       | (23.5) | 217   | (9.8)  | 240   | (3.5)  | 263   | (15.4) |
| 25 to 44                            | 66.9        | (4.4) | 227        | (5.1)  | 163     | (7.5)  | 197       | (10.7) | 231   | (5.4)  | 264   | (5.7)  | 291   | (13.4) |
| 45 to 59                            | 14.9        | (3.7) | 211        | (14.3) | 149     | (16.6) | 182       | (14.9) | 214   | (8.4)  | 252   | (11.9) | 269   | (9.7)  |
| 60 or older                         | 1.4         | (0.4) | 217        | (10.3) | 168     | (11.0) | 205       | (31.6) | 216   | (29.4) | 227   | (33.7) | 250   | (0.3)  |
| <b>Distribution by skill levels</b> |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| Scale, testing language and age     | Level 1     |       | Level 2    |        | Level 3 |        | Level 4/5 |        |       |        |       |        |       |        |
|                                     | %           | S.E.  | %          | S.E.   | %       | S.E.   | %         | S.E.   |       |        |       |        |       |        |
| <b>Prose literacy scale</b>         |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| <b>English tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            |             |       | 24.3       | (3.2)  | 45.0    | (8.7)  | 30.7      | (6.2)  | 0.0   | (0.0)  |       |        |       |        |
| 19 to 24                            |             |       | 56.5       | (4.0)  | 29.4    | (3.6)  | 13.0      | (2.0)  | 1.0   | (0.7)  |       |        |       |        |
| 25 to 44                            |             |       | 67.3       | (2.4)  | 24.3    | (1.7)  | 7.9       | (1.6)  | 0.5   | (0.1)  |       |        |       |        |
| 45 to 59                            |             |       | 68.7       | (4.0)  | 24.9    | (3.5)  | 3.3       | (1.4)  | 3.0   | (1.8)  |       |        |       |        |
| 60 or older                         |             |       | 73.2       | (6.9)  | 26.2    | (6.8)  | 0.5       | (0.6)  | 0.0   | (0.0)  |       |        |       |        |
| <b>Spanish tested</b>               |             |       |            |        |         |        |           |        |       |        |       |        |       |        |
| 16 to 18                            |             |       | *          | *      | *       | *      | *         | *      | *     | *      |       |        |       |        |
| 19 to 24                            |             |       | 53.1       | (4.8)  | 32.8    | (3.9)  | 12.4      | (3.2)  | 1.7   | (1.9)  |       |        |       |        |
| 25 to 44                            |             |       | 39.8       | (3.9)  | 33.4    | (2.8)  | 23.5      | (2.4)  | 3.3   | (1.2)  |       |        |       |        |
| 45 to 59                            |             |       | 45.1       | (7.2)  | 38.0    | (4.8)  | 12.8      | (5.4)  | 4.0   | (1.1)  |       |        |       |        |
| 60 or older                         |             |       | 42.2       | (13.0) | 51.2    | (14.7) | 6.6       | (7.0)  | 0.0   | (0.0)  |       |        |       |        |

TABLE 4.3 (CONCLUDED)

## Age and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and age | Distribution by skill levels |        |         |        |         |       |           |       |
|---------------------------------|------------------------------|--------|---------|--------|---------|-------|-----------|-------|
|                                 | Level 1                      |        | Level 2 |        | Level 3 |       | Level 4/5 |       |
|                                 | %                            | S.E.   | %       | S.E.   | %       | S.E.  | %         | S.E.  |
| <b>Document literacy scale</b>  |                              |        |         |        |         |       |           |       |
| <b>English tested</b>           |                              |        |         |        |         |       |           |       |
| 16 to 18                        | 44.2                         | (2.7)  | 48.3    | (1.6)  | 7.5     | (1.5) | 0.0       | (0.0) |
| 19 to 24                        | 48.7                         | (6.0)  | 34.7    | (3.8)  | 16.1    | (3.4) | 0.6       | (0.4) |
| 25 to 44                        | 65.2                         | (2.7)  | 26.7    | (1.8)  | 8.0     | (1.6) | 0.1       | (0.1) |
| 45 to 59                        | 65.3                         | (4.5)  | 28.0    | (3.6)  | 4.6     | (1.8) | 2.1       | (1.4) |
| 60 or older                     | 71.9                         | (8.3)  | 27.2    | (8.3)  | 0.9     | (1.0) | 0.0       | (0.0) |
| <b>Spanish tested</b>           |                              |        |         |        |         |       |           |       |
| 16 to 18                        | *                            | *      | *       | *      | *       | *     | *         | *     |
| 19 to 24                        | 58.9                         | (5.7)  | 32.4    | (5.5)  | 8.6     | (2.9) | 0.2       | (0.2) |
| 25 to 44                        | 45.4                         | (2.5)  | 39.7    | (2.3)  | 14.1    | (2.8) | 0.8       | (0.3) |
| 45 to 59                        | 58.8                         | (8.6)  | 36.2    | (6.4)  | 5.0     | (0.1) | 0.1       | (0.0) |
| 60 or older                     | 65.8                         | (11.3) | 26.9    | (10.9) | 7.3     | (5.2) | 0.0       | (0.0) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.4

## Age and skills on the prose and document literacy scales, Hispanic population by nativity

| Scale, testing language and age | Native Hispanic adult learners |        |            |        | Non-native Hispanic adult learners |       |            |        |
|---------------------------------|--------------------------------|--------|------------|--------|------------------------------------|-------|------------|--------|
|                                 | Percentage                     |        | Mean score |        | Percentage                         |       | Mean score |        |
|                                 | %                              | S.E.   | Score      | S.E.   | %                                  | S.E.  | Score      | S.E.   |
| <b>Prose literacy scale</b>     |                                |        |            |        |                                    |       |            |        |
| <b>English tested</b>           |                                |        |            |        |                                    |       |            |        |
| 16 to 18                        | 6.4                            | (2.9)  | 272        | (10.1) | 0.9                                | (0.4) | 205        | (21.0) |
| 19 to 24                        | 54.8                           | (11.0) | 244        | (4.3)  | 16.6                               | (1.4) | 183        | (4.8)  |
| 25 to 44                        | 31.7                           | (8.5)  | 243        | (5.7)  | 64.0                               | (1.7) | 188        | (3.7)  |
| 45 to 59                        | 6.4                            | (3.5)  | 269        | (24.1) | 16.0                               | (1.7) | 185        | (6.2)  |
| 60 or older                     | 0.6                            | (0.4)  | 132        | (29.6) | 1.5                                | (0.4) | 176        | (10.6) |
| <b>Spanish tested</b>           |                                |        |            |        |                                    |       |            |        |
| 16 to 18                        | 0.0                            | (0.0)  | n.a.       | n.a.   | 0.1                                | (0.1) | 249        | (11.9) |
| 19 to 24                        | 35.1                           | (10.4) | 146        | (65.9) | 12.8                               | (2.3) | 233        | (8.4)  |
| 25 to 44                        | 50.9                           | (5.7)  | 159        | (60.9) | 68.8                               | (5.6) | 242        | (3.7)  |
| 45 to 59                        | 13.0                           | (13.1) | 86         | (14.5) | 15.1                               | (5.1) | 239        | (5.7)  |
| 60 or older                     | 0.0                            | (0.0)  | n.a.       | n.a.   | 1.6                                | (0.5) | 226        | (12.6) |
| <b>Document literacy scale</b>  |                                |        |            |        |                                    |       |            |        |
| <b>English tested</b>           |                                |        |            |        |                                    |       |            |        |
| 16 to 18                        | 6.4                            | (2.9)  | 247        | (7.0)  | 0.9                                | (0.4) | 192        | (17.0) |
| 19 to 24                        | 54.8                           | (11.0) | 251        | (6.9)  | 16.6                               | (1.4) | 198        | (3.7)  |
| 25 to 44                        | 31.7                           | (8.5)  | 245        | (6.0)  | 64.0                               | (1.7) | 199        | (2.9)  |
| 45 to 59                        | 6.4                            | (3.5)  | 260        | (14.6) | 16.0                               | (1.7) | 200        | (4.7)  |
| 60 or older                     | 0.6                            | (0.4)  | 190        | (17.1) | 1.5                                | (0.4) | 192        | (9.5)  |
| <b>Spanish tested</b>           |                                |        |            |        |                                    |       |            |        |
| 16 to 18                        | 0.0                            | (0.0)  | n.a.       | n.a.   | 0.1                                | (0.1) | 239        | (10.4) |
| 19 to 24                        | 35.1                           | (10.4) | 178        | (33.7) | 12.8                               | (2.3) | 223        | (6.4)  |
| 25 to 44                        | 50.9                           | (5.7)  | 168        | (40.6) | 68.8                               | (5.6) | 232        | (3.2)  |
| 45 to 59                        | 13.0                           | (13.1) | 120        | (5.1)  | 15.1                               | (5.1) | 220        | (5.1)  |
| 60 or older                     | 0.0                            | (0.0)  | n.a.       | n.a.   | 1.6                                | (0.5) | 217        | (10.3) |

n.a. not applicable

TABLE 4.5

Place of birth and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and place of birth | Percentiles |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
|--|-------------|-------|------------|-------|---------|-------|---------|-------|-----------|-------|-------|-------|--------|-------|-------|--|
|  | Overall     |       |            |       |         | 10th  |         | 25th  |           | 50th  |       | 75th  |        | 90th  |       |  |
|  | %           | S.E.  | Mean score | S.E.  | S.D.    | Score | S.E.    | Score | S.E.      | Score | S.E.  | Score | S.E.   | Score | S.E.  |  |
| <b>Prose literacy scale</b>                |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| <b>English tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 22.6        | (1.5) | 246        | (3.6) | 44.5    | 192   | (0.5)   | 215   | (5.7)     | 245   | (5.6) | 278   | (18.6) | 297   | (7.2) |  |
| Born in a different country                | 77.4        | (1.5) | 186        | (2.9) | 60.0    | 106   | (3.8)   | 146   | (3.7)     | 188   | (2.9) | 230   | (4.1)  | 262   | (6.4) |  |
| <b>Spanish tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 11.0        | (4.3) | *          | *     | *       | *     | *       | *     | *         | *     | *     | *     | *      | *     | *     |  |
| Born in a different country                | 89.0        | (4.3) | 240        | (3.2) | 50.9    | 168   | (7.0)   | 207   | (2.5)     | 238   | (1.7) | 275   | (2.2)  | 304   | (6.9) |  |
| <b>Document literacy scale</b>             |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| <b>English tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 22.6        | (1.5) | 249        | (4.0) | 37.1    | 205   | (6.9)   | 222   | (4.8)     | 250   | (7.4) | 274   | (7.3)  | 292   | (4.8) |  |
| Born in a different country                | 77.4        | (1.5) | 199        | (2.3) | 48.2    | 137   | (2.0)   | 163   | (1.8)     | 199   | (2.5) | 231   | (5.0)  | 260   | (6.8) |  |
| <b>Spanish tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 11.0        | (4.3) | *          | *     | *       | *     | *       | *     | *         | *     | *     | *     | *      | *     | *     |  |
| Born in a different country                | 89.0        | (4.3) | 228        | (2.5) | 42.4    | 172   | (5.3)   | 200   | (4.0)     | 229   | (5.3) | 257   | (3.1)  | 286   | (8.6) |  |
| <b>Distribution by skill levels</b>        |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Scale, testing language and place of birth | Level 1     |       |            |       | Level 2 |       | Level 3 |       | Level 4/5 |       |       |       |        |       |       |  |
|  | %           | S.E.  | %          | S.E.  | %       | S.E.  | %       | S.E.  |           |       |       |       |        |       |       |  |
| <b>Prose literacy scale</b>                |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| <b>English tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 32.5        |       | (2.9)      |       | 45.6    |       | (2.5)   |       | 18.8      |       | (3.0) |       | 3.1    |       | (1.3) |  |
| Born in a different country                | 73.3        |       | (1.7)      |       | 20.3    |       | (1.2)   |       | 6.0       |       | (1.1) |       | 0.4    |       | (0.1) |  |
| <b>Spanish tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | *           |       | *          |       | *       |       | *       |       | *         |       | *     |       | *      |       | *     |  |
| Born in a different country                | 38.4        |       | (2.4)      |       | 36.7    |       | (1.3)   |       | 21.5      |       | (1.6) |       | 3.4    |       | (1.0) |  |
| <b>Document literacy scale</b>             |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| <b>English tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | 26.2        |       | (3.8)      |       | 50.0    |       | (3.2)   |       | 21.7      |       | (3.4) |       | 2.1    |       | (1.0) |  |
| Born in a different country                | 71.0        |       | (2.0)      |       | 23.2    |       | (1.4)   |       | 5.8       |       | (1.1) |       | 0.0    |       | (0.0) |  |
| <b>Spanish tested</b>                      |             |       |            |       |         |       |         |       |           |       |       |       |        |       |       |  |
| Born in the United States                  | *           |       | *          |       | *       |       | *       |       | *         |       | *     |       | *      |       | *     |  |
| Born in a different country                | 46.2        |       | (2.4)      |       | 40.5    |       | (1.1)   |       | 12.7      |       | (2.3) |       | 0.6    |       | (0.2) |  |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.6

## Mother tongue and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language<br>and mother tongue | Distribution by skill levels |       |               |       |         |       |         |       |         |       |           |       |
|--|------------------------------|-------|---------------|-------|---------|-------|---------|-------|---------|-------|-----------|-------|
|  | Overall                      |       |               |       | Level 1 |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|  | %                            | S.E.  | Mean<br>score | S.E.  | %       | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>                  |                              |       |               |       |         |       |         |       |         |       |           |       |
| <b>English tested</b>                        |                              |       |               |       |         |       |         |       |         |       |           |       |
| English                                      | 15.8                         | (1.5) | 248           | (4.8) | 29.9    | (3.8) | 47.0    | (2.9) | 18.9    | (2.8) | 4.2       | (1.8) |
| Spanish                                      | 81.9                         | (1.5) | 191           | (2.9) | 70.1    | (1.9) | 22.4    | (1.6) | 7.1     | (1.2) | 0.4       | (0.2) |
| <b>Spanish tested</b>                        |                              |       |               |       |         |       |         |       |         |       |           |       |
| English                                      | 7.4                          | (4.5) | *             | *     | *       | *     | *       | *     | *       | *     | *         | *     |
| Spanish                                      | 91.5                         | (4.5) | 236           | (3.3) | 39.5    | (2.7) | 37.2    | (1.3) | 20.6    | (1.6) | 2.7       | (1.1) |
| <b>Document literacy scale</b>               |                              |       |               |       |         |       |         |       |         |       |           |       |
| <b>English tested</b>                        |                              |       |               |       |         |       |         |       |         |       |           |       |
| English                                      | 15.8                         | (1.5) | 250           | (3.4) | 25.0    | (2.3) | 49.2    | (4.2) | 22.8    | (3.8) | 3.0       | (1.4) |
| Spanish                                      | 81.9                         | (1.5) | 203           | (2.2) | 67.0    | (2.1) | 26.0    | (1.4) | 7.0     | (1.2) | 0.0       | (0.0) |
| <b>Spanish tested</b>                        |                              |       |               |       |         |       |         |       |         |       |           |       |
| English                                      | 7.4                          | (4.5) | *             | *     | *       | *     | *       | *     | *       | *     | *         | *     |
| Spanish                                      | 91.5                         | (4.5) | 226           | (2.6) | 47.3    | (2.9) | 39.9    | (1.1) | 12.2    | (2.6) | 0.6       | (0.2) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.7

Mother tongue and skills on the prose and document literacy scales, by place of birth, Hispanic population

| Scale, testing language and mother tongue      | Native Hispanic adults (23 percent)     |        |            |       |                              |       |         |       |         |       |           |       |
|--|---|--------|------------|-------|------------------------------|-------|---------|-------|---------|-------|-----------|-------|
|  | Overall                                 |        |            |       | Distribution by skill levels |       |         |       |         |       |           |       |
|  | Overall                                 |        | Mean score |       | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|  | %                                       | S.E.   | score      | S.E.  | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>                    |   |        |            |       |                              |       |         |       |         |       |           |       |
| <b>English tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 66.8                                    | (4.9)  | 250        | (4.7) | 28.2                         | (4.2) | 47.9    | (3.5) | 19.6    | (2.9) | 4.3       | (1.9) |
| Spanish as mother tongue                       | 32.2                                    | (4.7)  | 238        | (7.3) | 40.0                         | (9.3) | 41.7    | (8.4) | 17.7    | (4.7) | 0.6       | (0.6) |
| <b>Spanish tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 57.3                                    | (31.5) | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 42.7                                    | (31.5) | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| <b>Document literacy scale</b>                 |   |        |            |       |                              |       |         |       |         |       |           |       |
| <b>English tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 66.8                                    | (4.9)  | 253        | (3.6) | 22.6                         | (2.3) | 50.5    | (3.7) | 23.6    | (4.3) | 3.2       | (1.5) |
| Spanish as mother tongue                       | 32.2                                    | (4.7)  | 242        | (8.1) | 31.5                         | (8.8) | 50.3    | (4.0) | 18.2    | (7.4) | 0.0       | (0.0) |
| <b>Spanish tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 57.3                                    | (31.5) | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 42.7                                    | (31.5) | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| <b>Non-native Hispanic adults (77 percent)</b> |   |        |            |       |                              |       |         |       |         |       |           |       |
| Scale, testing language and mother tongue      | Non-native Hispanic adults (77 percent) |        |            |       |                              |       |         |       |         |       |           |       |
|  | Overall                                 |        |            |       | Distribution by skill levels |       |         |       |         |       |           |       |
|  | Overall                                 |        | Mean score |       | Level 1                      |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|  | %                                       | S.E.   | score      | S.E.  | %                            | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| <b>Prose literacy scale</b>                    |   |        |            |       |                              |       |         |       |         |       |           |       |
| <b>English tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 0.9                                     | (0.4)  | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 96.5                                    | (0.7)  | 187        | (2.9) | 73.1                         | (1.8) | 20.5    | (1.3) | 6.1     | (1.2) | 0.4       | (0.1) |
| <b>Spanish tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 1.3                                     | (0.5)  | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 97.5                                    | (0.6)  | 239        | (3.7) | 38.6                         | (2.8) | 37.5    | (1.3) | 21.1    | (1.8) | 2.8       | (1.2) |
| <b>Document literacy scale</b>                 |   |        |            |       |                              |       |         |       |         |       |           |       |
| <b>English tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 0.9                                     | (0.4)  | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 96.5                                    | (0.7)  | 199        | (2.3) | 70.5                         | (2.0) | 23.6    | (1.5) | 5.9     | (1.2) | 0.0       | (0.0) |
| <b>Spanish tested</b>                          |   |        |            |       |                              |       |         |       |         |       |           |       |
| English as mother tongue                       | 1.3                                     | (0.5)  | *          | *     | *                            | *     | *       | *     | *       | *     | *         | *     |
| Spanish as mother tongue                       | 97.5                                    | (0.6)  | 228        | (3.0) | 46.6                         | (2.8) | 40.4    | (1.2) | 12.4    | (2.8) | 0.6       | (0.3) |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.8

**Years in the United States and skills on the prose and document literacy scales,  
non-native Hispanic population**

| Scale, testing language and<br>years in the United States | Distribution by skill levels |       |               |        |         |        |         |       |         |        |           |       |
|---|------------------------------|-------|---------------|--------|---------|--------|---------|-------|---------|--------|-----------|-------|
|   | Overall                      |       |               |        | Level 1 |        | Level 2 |       | Level 3 |        | Level 4/5 |       |
|   | %                            | S.E.  | Mean<br>score | S.E.   | %       | S.E.   | %       | S.E.  | %       | S.E.   | %         | S.E.  |
| <b>Prose literacy scale</b>                               |                              |       |               |        |         |        |         |       |         |        |           |       |
| <b>English tested</b>                                     |                              |       |               |        |         |        |         |       |         |        |           |       |
| 0 to 2  | 11.3                         | (1.0) | 193           | (6.9)  | 67.0    | (4.4)  | 19.4    | (3.6) | 13.1    | (3.4)  | 0.5       | (0.2) |
| 3 to 5  | 27.5                         | (1.8) | 188           | (5.3)  | 71.4    | (3.5)  | 21.6    | (2.5) | 6.7     | (2.1)  | 0.4       | (0.2) |
| 6 to 10   | 21.4                         | (2.3) | 179           | (4.4)  | 82.2    | (2.2)  | 15.5    | (1.9) | 2.2     | (1.0)  | 0.1       | (0.1) |
| 11 to 15  | 17.4                         | (1.2) | 184           | (6.6)  | 73.1    | (4.2)  | 23.1    | (3.3) | 3.7     | (2.4)  | 0.1       | (0.1) |
| 16 or longer  | 20.3                         | (2.2) | 191           | (3.7)  | 69.8    | (2.7)  | 21.7    | (2.6) | 7.7     | (2.1)  | 0.8       | (0.6) |
| <b>Spanish tested</b>                                     |                              |       |               |        |         |        |         |       |         |        |           |       |
| 0 to 2  | 9.4                          | (1.7) | 254           | (11.3) | 30.8    | (7.5)  | 23.8    | (5.1) | 28.0    | (6.8)  | 8.5       | (3.8) |
| 3 to 5  | 28.0                         | (2.2) | 247           | (5.4)  | 32.4    | (4.6)  | 39.0    | (3.0) | 25.1    | (3.4)  | 3.5       | (0.8) |
| 6 to 10   | 18.6                         | (1.5) | 236           | (5.8)  | 42.1    | (4.1)  | 35.2    | (3.5) | 21.1    | (2.6)  | 1.6       | (0.9) |
| 11 to 15  | 19.8                         | (2.5) | 233           | (12.7) | 41.5    | (11.1) | 37.5    | (5.3) | 16.9    | (6.2)  | 4.1       | (3.8) |
| 16 or longer  | 23.9                         | (2.9) | 235           | (5.5)  | 43.2    | (5.5)  | 36.0    | (4.4) | 18.7    | (3.5)  | 2.1       | (0.6) |
| <b>Document literacy scale</b>                            |                              |       |               |        |         |        |         |       |         |        |           |       |
| <b>English tested</b>                                     |                              |       |               |        |         |        |         |       |         |        |           |       |
| 0 to 2  | 11.3                         | (1.0) | 203           | (5.9)  | 62.0    | (4.3)  | 26.1    | (3.5) | 11.9    | (3.0)  | 0.0       | (0.0) |
| 3 to 5  | 27.5                         | (1.8) | 205           | (4.4)  | 66.2    | (3.6)  | 25.4    | (3.2) | 8.3     | (3.3)  | 0.1       | (0.0) |
| 6 to 10   | 21.4                         | (2.3) | 192           | (3.1)  | 77.7    | (2.7)  | 21.5    | (2.6) | 0.9     | (0.4)  | 0.0       | (0.0) |
| 11 to 15  | 17.4                         | (1.2) | 194           | (5.0)  | 78.9    | (4.6)  | 19.5    | (3.2) | 3.5     | (2.7)  | 0.0       | (0.0) |
| 16 or longer  | 20.3                         | (2.2) | 201           | (3.4)  | 69.4    | (3.3)  | 23.8    | (3.7) | 6.8     | (2.1)  | 0.0       | (0.0) |
| <b>Spanish tested</b>                                     |                              |       |               |        |         |        |         |       |         |        |           |       |
| 0 to 2  | 9.4                          | (1.7) | 240           | (9.3)  | 39.7    | (9.5)  | 38.5    | (3.9) | 18.4    | (4.8)  | 3.3       | (2.0) |
| 3 to 5  | 28.0                         | (2.2) | 235           | (4.2)  | 38.5    | (3.9)  | 48.5    | (3.4) | 12.7    | (4.1)  | 0.3       | (0.2) |
| 6 to 10   | 18.6                         | (1.5) | 226           | (5.0)  | 51.4    | (3.9)  | 36.9    | (3.7) | 10.7    | (2.7)  | 1.0       | (0.8) |
| 11 to 15  | 19.8                         | (2.5) | 220           | (10.5) | 57.0    | (7.1)  | 26.2    | (4.6) | 16.9    | (10.1) | 0.0       | (0.0) |
| 16 or longer  | 23.9                         | (2.9) | 225           | (5.1)  | 44.9    | (4.5)  | 46.5    | (5.4) | 8.6     | (5.4)  | 0.0       | (0.0) |

TABLE 4.9

Perceived ability in English and Spanish and performance on the prose and document literacy scales, Hispanic population

| Scale, testing language, and language perception            | Very well |       |            |       | Well |       |            |        | Not well |       |            |        | Not at all |       |            |        |
|---|-----------|-------|------------|-------|------|-------|------------|--------|----------|-------|------------|--------|------------|-------|------------|--------|
|   | %         | S.E.  | Mean score | S.E.  | %    | S.E.  | Mean score | S.E.   | %        | S.E.  | Mean score | S.E.   | %          | S.E.  | Mean score | S.E.   |
| <b>Prose literacy scale</b>                                 |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| <b>English tested</b>                                       |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| <b>Perceptions about Spanish<sup>a</sup></b>                |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| How well do you understand it when someone speaks with you? | 64.5      | (2.1) | 196        | (3.4) | 17.7 | (1.4) | 173        | (7.9)  | 1.3      | (0.3) | 154        | (15.6) | 0.0        | (0.0) | n.a.       | n.a.   |
| How well do you speak it?                                   | 57.6      | (1.7) | 195        | (3.5) | 23.8 | (1.4) | 183        | (4.9)  | 2.0      | (0.6) | 156        | (20.5) | 0.0        | (0.0) | n.a.       | n.a.   |
| How well do you read it?                                    | 56.1      | (1.7) | 195        | (3.4) | 21.7 | (1.6) | 179        | (5.1)  | 3.7      | (0.7) | 164        | (15.0) | 2.1        | (0.6) | 215        | (14.8) |
| How well do you write it?                                   | 49.7      | (1.8) | 196        | (3.3) | 24.4 | (2.0) | 181        | (5.5)  | 7.1      | (1.0) | 179        | (11.8) | 2.3        | (0.5) | 203        | (12.4) |
| <b>Perceptions about English</b>                            |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| How well do you understand it when someone speaks with you? | 23.0      | (1.4) | 248        | (3.3) | 35.2 | (1.4) | 213        | (3.5)  | 40.0     | (1.4) | 163        | (3.7)  | 1.6        | (0.5) | 148        | (21.2) |
| How well do you speak it?                                   | 18.9      | (1.5) | 250        | (3.8) | 24.4 | (1.3) | 222        | (3.3)  | 53.4     | (1.7) | 175        | (3.2)  | 2.9        | (0.5) | 144        | (10.7) |
| How well do you read it?                                    | 18.4      | (1.7) | 254        | (4.3) | 36.5 | (2.0) | 217        | (2.4)  | 42.1     | (1.5) | 167        | (4.5)  | 2.6        | (0.5) | 118        | (12.8) |
| How well do you write it?                                   | 15.1      | (1.3) | 251        | (4.6) | 29.7 | (2.4) | 225        | (3.3)  | 49.1     | (2.4) | 177        | (3.7)  | 5.6        | (0.8) | 130        | (8.6)  |
| <b>Spanish Tested</b>                                       |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| <b>Perceptions about Spanish<sup>b</sup></b>                |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| How well do you understand it when someone speaks with you? | 71.8      | (5.4) | 246        | (3.8) | 19.5 | (2.0) | 205        | (10.2) | 0.6      | (0.2) | 207        | (21.1) | 0.0        | (0.0) | *          | *      |
| How well do you speak it?                                   | 62.2      | (4.7) | 248        | (4.5) | 26.2 | (2.3) | 216        | (4.9)  | 3.0      | (1.3) | *          | *      | 0.0        | (0.0) | *          | *      |
| How well do you read it?                                    | 59.7      | (4.6) | 249        | (4.4) | 27.0 | (3.0) | 222        | (5.1)  | 4.7      | (1.7) | *          | *      | 0.1        | (0.0) | *          | *      |
| How well do you write it?                                   | 52.2      | (3.7) | 251        | (5.0) | 29.5 | (4.2) | 226        | (6.6)  | 8.4      | (1.1) | 204        | (8.4)  | 1.1        | (1.0) | *          | *      |
| <b>Perceptions about English</b>                            |           |       |            |       |      |       |            |        |          |       |            |        |            |       |            |        |
| How well do you understand it when someone speaks with you? | 11.1      | (5.6) | *          | *     | 41.6 | (1.8) | 245        | (6.5)  | 45.9     | (6.0) | 230.6      | (5.6)  | 0.7        | (0.4) | 184.0      | (11.8) |
| How well do you speak it?                                   | 9.4       | (5.1) | *          | *     | 23.2 | (2.4) | 239        | (10.9) | 63.9     | (7.0) | 237.2      | (4.6)  | 2.8        | (0.9) | 222.4      | (13.0) |
| How well do you read it?                                    | 9.5       | (3.7) | *          | *     | 36.5 | (2.9) | 253        | (5.4)  | 50.1     | (5.8) | 224.8      | (6.0)  | 3.1        | (0.7) | 207.1      | (10.7) |
| How well do you write it?                                   | 7.9       | (3.4) | *          | *     | 24.8 | (3.0) | 246        | (9.9)  | 59.5     | (5.8) | 234.0      | (3.5)  | 6.9        | (1.2) | 216.2      | (15.7) |

TABLE 4.9 (CONCLUDED)

**Perceived ability in English and Spanish and performance on the prose  
and document literacy scales, Hispanic population**

| Scale, testing language,<br>and language perception         | Very well |       |               |       | Well |       |               |       | Not well |       |               |        | Not at all |       |               |        |
|---|-----------|-------|---------------|-------|------|-------|---------------|-------|----------|-------|---------------|--------|------------|-------|---------------|--------|
|   | %         | S.E.  | Mean<br>score | S.E.  | %    | S.E.  | Mean<br>score | S.E.  | %        | S.E.  | Mean<br>score | S.E.   | %          | S.E.  | Mean<br>score | S.E.   |
| <b>Document literacy scale</b>                              |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| <b>English tested</b>                                       |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| <b>Perceptions about Spanish<sup>a</sup></b>                |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| How well do you understand it when someone speaks with you? | 64.5      | (2.1) | 207           | (3.0) | 17.7 | (1.4) | 187           | (5.7) | 1.3      | (0.3) | 184           | (12.9) | 0.0        | (0.0) | n.a.          | n.a.   |
| How well do you speak it?                                   | 57.6      | (1.7) | 206           | (3.0) | 23.8 | (1.4) | 195           | (4.0) | 2.0      | (0.6) | 182           | (10.9) | 0.0        | (0.0) | n.a.          | n.a.   |
| How well do you read it?                                    | 56.1      | (1.7) | 206           | (2.7) | 21.7 | (1.6) | 194           | (4.4) | 3.7      | (0.7) | 186           | (7.2)  | 2.1        | (0.6) | 224           | (11.3) |
| How well do you write it?                                   | 49.7      | (1.8) | 207           | (2.7) | 24.4 | (2.0) | 193           | (4.5) | 7.1      | (1.0) | 198           | (10.6) | 2.3        | (0.5) | 214           | (12.6) |
| <b>Perceptions about English</b>                            |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| How well do you understand it when someone speaks with you? | 23.0      | (1.4) | 248           | (3.7) | 35.2 | (1.4) | 221           | (3.0) | 40.0     | (1.4) | 180           | (2.6)  | 1.6        | (0.5) | 169           | (20.1) |
| How well do you speak it?                                   | 18.9      | (1.5) | 249           | (4.1) | 24.4 | (1.3) | 228           | (3.4) | 53.4     | (1.7) | 191           | (2.6)  | 2.9        | (0.5) | 162           | (9.2)  |
| How well do you read it?                                    | 18.4      | (1.7) | 253           | (3.7) | 36.5 | (2.0) | 221           | (2.5) | 42.1     | (1.5) | 185           | (3.2)  | 2.6        | (0.5) | 158           | (10.2) |
| How well do you write it?                                   | 15.1      | (1.3) | 250           | (3.7) | 29.7 | (2.4) | 228           | (3.5) | 49.1     | (2.4) | 192           | (2.9)  | 5.6        | (0.8) | 160           | (7.3)  |
| <b>Spanish tested</b>                                       |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| <b>Perceptions about Spanish<sup>b</sup></b>                |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| How well do you understand it when someone speaks with you? | 71.8      | (5.4) | 232           | (2.9) | 19.5 | (2.0) | 207           | (7.1) | 0.6      | (0.2) | *             | *      | 0.0        | (0.0) | *             | *      |
| How well do you speak it?                                   | 62.2      | (4.7) | 233           | (3.4) | 26.2 | (2.3) | 215           | (4.8) | 3.0      | (1.3) | *             | *      | 0.0        | (0.0) | *             | *      |
| How well do you read it?                                    | 59.7      | (4.6) | 234           | (3.3) | 27.0 | (3.0) | 217           | (4.3) | 4.7      | (1.7) | *             | *      | 0.1        | (0.0) | *             | *      |
| How well do you write it?                                   | 52.2      | (3.7) | 236           | (3.8) | 29.5 | (4.2) | 220           | (5.7) | 8.4      | (1.1) | 203           | (6.7)  | 1.1        | (1.0) | *             | *      |
| <b>Perceptions about English</b>                            |           |       |               |       |      |       |               |       |          |       |               |        |            |       |               |        |
| How well do you understand it when someone speaks with you? | 11.1      | (5.6) | *             | *     | 41.6 | (1.8) | 230           | (5.1) | 45.9     | (6.0) | 223           | (4.6)  | 0.7        | (0.4) | 168           | (14.7) |
| How well do you speak it?                                   | 9.4       | (5.1) | *             | *     | 23.2 | (2.4) | 230           | (8.5) | 63.9     | (7.0) | 225           | (3.1)  | 2.8        | (0.9) | 211           | (9.0)  |
| How well do you read it?                                    | 9.5       | (3.7) | *             | *     | 36.5 | (2.9) | 238           | (3.6) | 50.1     | (5.8) | 217           | (4.9)  | 3.1        | (0.7) | 190           | (11.1) |
| How well do you write it?                                   | 7.9       | (3.4) | *             | *     | 24.8 | (3.0) | 232           | (7.7) | 59.5     | (5.8) | 225           | (3.2)  | 6.9        | (1.2) | 198           | (6.1)  |

n.a. not applicable

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

<sup>a</sup> This actually represents 82 percent of learners who reported about Spanish.<sup>b</sup> This actually represents 92 percent of learners who reported about their ability in Spanish.

TABLE 4.10

Early problems in school and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and problems in school                                       | Early problems in school |       |            |        |      |       |            |       |
|--|--------------------------|-------|------------|--------|------|-------|------------|-------|
|  | Yes                      |       |            |        | No   |       |            |       |
|  | %                        | S.E.  | Mean score | S.E.   | %    | S.E.  | Mean score | S.E.  |
| <b>Prose literacy scale</b>  |                          |       |            |        |      |       |            |       |
| <b>English tested</b>  |                          |       |            |        |      |       |            |       |
| When first learning to read, do you remember ever having trouble reading as a child? | 21.1                     | (1.7) | 206        | (5.2)  | 77.4 | (1.7) | 199        | (2.8) |
| When first learning math, do you remember ever having trouble with math as a child?  | 30.5                     | (1.9) | 202        | (4.9)  | 68.2 | (1.9) | 200        | (2.8) |
| Have you ever repeated a grade?  | 30.9                     | (1.7) | 199        | (4.3)  | 68.5 | (1.7) | 201        | (2.8) |
| <b>Spanish tested</b>  |                          |       |            |        |      |       |            |       |
| When first learning to read, do you remember ever having trouble reading as a child? | 15.5                     | (4.8) | 180        | (37.1) | 83.5 | (4.5) | 238        | (3.2) |
| When first learning math, do you remember ever having trouble with math as a child?  | 29.5                     | (4.5) | 211        | (8.8)  | 69.9 | (4.7) | 238        | (9.7) |
| Have you ever repeated a grade?  | 25.3                     | (3.3) | 207        | (9.2)  | 72.9 | (2.4) | 241        | (6.1) |
| <b>Document literacy scale</b>   |                          |       |            |        |      |       |            |       |
| <b>English tested</b>  |                          |       |            |        |      |       |            |       |
| When first learning to read, do you remember ever having trouble reading as a child? | 21.1                     | (1.7) | 217        | (4.6)  | 77.4 | (1.7) | 209        | (2.2) |
| When first learning math, do you remember ever having trouble with math as a child?  | 30.5                     | (1.9) | 210        | (4.3)  | 68.2 | (1.9) | 211        | (2.6) |
| Have you ever repeated a grade?  | 30.9                     | (1.7) | 211        | (5.1)  | 68.5 | (1.7) | 210        | (2.0) |
| <b>Spanish tested</b>  |                          |       |            |        |      |       |            |       |
| When first learning to read, do you remember ever having trouble reading as a child? | 15.5                     | (4.8) | 191        | (22.6) | 83.5 | (4.5) | 227        | (2.8) |
| When first learning math, do you remember ever having trouble with math as a child?  | 29.5                     | (4.5) | 203        | (5.3)  | 69.9 | (4.7) | 230        | (7.3) |
| Have you ever repeated a grade?  | 25.3                     | (3.3) | 204        | (6.2)  | 72.9 | (2.4) | 230        | (4.3) |

TABLE 4.11

**Highest level of education completed in the United States and skills on the prose  
and document literacy scales, Hispanic population**

| Scale, testing language<br>and level of education | Percentiles |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
|---|-------------|-------|---------------|--------|------------------|--------|------------------|--------|------------------|--------|------------------|--------|------------------|--------|
|   | Overall     |       |               |        | 10 <sup>th</sup> |        | 25 <sup>th</sup> |        | 50 <sup>th</sup> |        | 75 <sup>th</sup> |        | 90 <sup>th</sup> |        |
|   | %           | S.E.  | Mean<br>score | S.E.   | Score            | S.E.   | Score            | S.E.   | Score            | S.E.   | Score            | S.E.   | Score            | S.E.   |
| <b>Prose literacy scale</b>                       |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| <b>English tested</b>                             |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| No Education                                      | 62.3        | (1.8) | 179           | (3.2)  | 101              | (4.9)  | 138              | (5.4)  | 182              | (5.4)  | 222              | (4.0)  | 257              | (5.7)  |
| Up to 8th grade                                   | 4.2         | (0.9) | 218           | (11.9) | 139              | (29.7) | 173              | (38.7) | 225              | (29.8) | 253              | (6.5)  | 290              | (47.4) |
| 9th and 11th grade                                | 21.5        | (1.3) | 237           | (3.3)  | 178              | (15.4) | 210              | (2.2)  | 240              | (4.0)  | 268              | (3.2)  | 299              | (4.3)  |
| 12th grade up to completion<br>of high school     | 4.7         | (0.8) | 236           | (7.2)  | 167              | (14.3) | 211              | (12.5) | 251              | (21.5) | 277              | (21.6) | 282              | (0.3)  |
| GED equivalent                                    | 3.1         | (0.8) | 220           | (6.1)  | 192              | (0.1)  | 199              | (6.8)  | 217              | (11.8) | 238              | (26.9) | 258              | (18.1) |
| Some education after<br>high school               | 3.3         | (0.5) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| <b>Spanish tested</b>                             |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| No Education                                      | 72.9        | (3.5) | 238           | (4.8)  | 167              | (3.6)  | 205              | (5.0)  | 238              | (3.7)  | 275              | (4.2)  | 300              | (12.3) |
| Up to 8th grade                                   | 5.5         | (0.7) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| 9th and 11th grade                                | 12.0        | (2.0) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| 12th grade up to completion<br>of high school     | 2.6         | (0.8) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| GED equivalent                                    | 1.7         | (1.8) | 262           | (9.2)  | 216              | (5.9)  | 216              | (8.2)  | 264              | (55.9) | 325              | (26.1) | 338              | (13.5) |
| Some education after<br>high school               | 3.6         | (1.0) | 261           | (9.7)  | 208              | (14.9) | 236              | (16.5) | 265              | (39.6) | 282              | (25.2) | 312              | (18.5) |
| <b>Document literacy scale</b>                    |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| <b>English tested</b>                             |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| No Education                                      | 62.3        | (1.8) | 194           | (2.6)  | 132              | (3.9)  | 157              | (3.3)  | 192              | (2.6)  | 225              | (3.3)  | 256              | (2.5)  |
| Up to 8th grade                                   | 4.2         | (0.9) | 223           | (8.8)  | 170              | (26.3) | 201              | (10.8) | 219              | (9.3)  | 249              | (2.3)  | 257              | (7.3)  |
| 9th and 11th grade                                | 21.5        | (1.3) | 239           | (3.7)  | 186              | (16.0) | 213              | (3.9)  | 242              | (7.6)  | 270              | (7.9)  | 287              | (1.3)  |
| 12th grade up to completion<br>of high school     | 4.7         | (0.8) | 253           | (9.0)  | 203              | (8.6)  | 228              | (19.1) | 251              | (13.4) | 292              | (16.3) | 296              | (7.3)  |
| GED equivalent                                    | 3.1         | (0.8) | 233           | (6.2)  | 207              | (4.9)  | 218              | (3.8)  | 227              | (5.8)  | 252              | (9.1)  | 262              | (12.0) |
| Some education after<br>high school               | 3.3         | (0.5) | 237           | (10.0) | 171              | (30.6) | 204              | (14.0) | 242              | (5.5)  | 265              | (20.8) | 340              | (70.9) |
| <b>Spanish tested</b>                             |             |       |               |        |                  |        |                  |        |                  |        |                  |        |                  |        |
| No Education                                      | 72.9        | (3.5) | 226           | (3.4)  | 169              | (7.2)  | 196              | (4.4)  | 226              | (6.0)  | 255              | (4.8)  | 286              | (8.9)  |
| Up to 8th grade                                   | 5.5         | (0.7) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| 9th and 11th grade                                | 12.0        | (2.0) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| 12th grade up to completion<br>of high school     | 2.6         | (0.8) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |
| GED equivalent                                    | 1.7         | (1.8) | 253           | (9.1)  | 213              | (13.4) | 214              | (18.8) | 263              | (26.6) | 310              | (39.0) | 319              | (27.8) |
| Some education after<br>high school               | 3.6         | (1.0) | *             | *      | *                | *      | *                | *      | *                | *      | *                | *      | *                | *      |

TABLE 4.11 (CONCLUDED)

Highest level of education completed in the United States and skills on the prose and document literacy scales, Hispanic population

| Scale, testing language and level of education | Distribution by skill levels |        |         |        |         |        |           |       |
|--|------------------------------|--------|---------|--------|---------|--------|-----------|-------|
|  | Level 1                      |        | Level 2 |        | Level 3 |        | Level 4/5 |       |
|  | %                            | S.E.   | %       | S.E.   | %       | S.E.   | %         | S.E.  |
| <b>Prose literacy scale</b>                    |                              |        |         |        |         |        |           |       |
| <b>English tested</b>                          |                              |        |         |        |         |        |           |       |
| No Education                                   | 77.5                         | (1.7)  | 18.0    | (1.4)  | 4.3     | (1.0)  | 0.3       | (0.1) |
| Up to 8th grade                                | 53.4                         | (8.7)  | 31.2    | (5.1)  | 13.6    | (5.4)  | 1.9       | (1.6) |
| 9th and 11th grade                             | 39.1                         | (2.9)  | 42.0    | (3.1)  | 17.5    | (2.3)  | 1.4       | (0.8) |
| 12th grade up to completion of high school     | 36.1                         | (8.2)  | 41.2    | (8.0)  | 22.2    | (4.7)  | 0.5       | (0.6) |
| GED equivalent                                 | 50.4                         | (5.4)  | 44.3    | (5.5)  | 4.9     | (1.4)  | 0.3       | (0.4) |
| Some education after high school               | *                            | *      | *       | *      | *       | *      | *         | *     |
| <b>Spanish tested</b>                          |                              |        |         |        |         |        |           |       |
| No Education                                   | 38.9                         | (3.6)  | 36.7    | (2.0)  | 20.8    | (2.6)  | 3.6       | (1.2) |
| Up to 8th grade                                | *                            | *      | *       | *      | *       | *      | *         | *     |
| 9th and 11th grade                             | *                            | *      | *       | *      | *       | *      | *         | *     |
| 12th grade up to completion of high school     | *                            | *      | *       | *      | *       | *      | *         | *     |
| GED equivalent                                 | 27.8                         | (8.2)  | 27.9    | (7.5)  | 36.2    | (7.6)  | 8.1       | (2.8) |
| Some education after high school               | 18.1                         | (8.7)  | 47.3    | (7.2)  | 30.4    | (7.4)  | 4.2       | (2.7) |
| <b>Document literacy scale</b>                 |                              |        |         |        |         |        |           |       |
| <b>English tested</b>                          |                              |        |         |        |         |        |           |       |
| No Education                                   | 75.0                         | (1.8)  | 20.0    | (1.3)  | 4.9     | (1.3)  | 0.0       | (0.0) |
| Up to 8th grade                                | 49.7                         | (10.2) | 45.2    | (10.3) | 5.0     | (1.8)  | 0.0       | (0.0) |
| 9th and 11th grade                             | 34.5                         | (3.6)  | 48.0    | (4.2)  | 17.0    | (3.5)  | 0.5       | (0.4) |
| 12th grade up to completion of high school     | 27.2                         | (6.4)  | 36.6    | (8.3)  | 34.2    | (11.8) | 2.0       | (1.3) |
| GED equivalent                                 | 42.5                         | (7.0)  | 44.6    | (8.1)  | 12.8    | (4.9)  | 0.1       | (0.1) |
| Some education after high school               | 39.8                         | (7.0)  | 38.3    | (6.4)  | 13.2    | (3.3)  | 8.6       | (5.7) |
| <b>Spanish tested</b>                          |                              |        |         |        |         |        |           |       |
| No Education                                   | 48.3                         | (3.3)  | 38.4    | (1.9)  | 12.8    | (2.2)  | 0.5       | (0.3) |
| Up to 8th grade                                | *                            | *      | *       | *      | *       | *      | *         | *     |
| 9th and 11th grade                             | *                            | *      | *       | *      | *       | *      | *         | *     |
| 12th grade up to completion of high school     | *                            | *      | *       | *      | *       | *      | *         | *     |
| GED equivalent                                 | 21.9                         | (7.9)  | 41.7    | (10.2) | 36.3    | (8.0)  | 0.0       | (0.0) |
| Some education after high school               | *                            | *      | *       | *      | *       | *      | *         | *     |

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.12

**Educational level and skills on the prose and document literacy scales,  
by place of birth, Hispanic population**

| Testing language,<br>and level of education   | Native Hispanic adults   |        |                   |        |                      |        | Non-native Hispanic adults  |       |                   |        |                      |        |
|---|--|--------|-------------------|--------|----------------------|--------|---|-------|-------------------|--------|----------------------|--------|
|   | The highest level of education<br>completed in the United States |        |                   |        |                      |        | The highest level of education completed<br>before immigration to the United States |       |                   |        |                      |        |
|   | Percentage   |        | Mean scores       |        |                      |        | Percentage  |       | Mean scores       |        |                      |        |
|   |  |        | Prose<br>literacy |        | Document<br>literacy |        |   |       | Prose<br>literacy |        | Document<br>literacy |        |
| %   | S.E.   | Score  | S.E.              | Score  | S.E.                 | %      | S.E.  | Score | S.E.              | Score  | S.E.                 |        |
| <b>English tested</b>                         |  |        |                   |        |                      |        |   |       |                   |        |                      |        |
| No Education                                  | 2.0  | (0.9)  | 210               | (22.4) | 217                  | (12.0) | 4.4   | (1.0) | 213               | (15.7) | 211                  | (10.3) |
| Up to 8th grade                               | 5.7  | (1.9)  | 244               | (9.0)  | 247                  | (6.4)  | 28.7  | (2.4) | 160               | (5.6)  | 181                  | (4.6)  |
| 9th and 11th grade                            | 71.4   | (4.5)  | 244               | (3.3)  | 245                  | (4.4)  | 17.0  | (1.5) | 187               | (7.0)  | 196                  | (5.1)  |
| 12th grade up to<br>completion of high school | 13.7   | (3.0)  | 248               | (9.5)  | 263                  | (11.3) | 20.3  | (1.7) | 184               | (3.8)  | 197                  | (3.4)  |
| GED equivalent                                | 4.3  | (2.3)  | 236               | (13.2) | 251                  | (10.3) | n.a.  | n.a.  | n.a.              | n.a.   | n.a.                 | n.a.   |
| Some education after<br>high school           | 2.8  | (1.3)  | *                 | *      | *                    | *      | 26.8  | (1.8) | 209               | (4.7)  | 218                  | (4.5)  |
| <b>Spanish tested</b>                         |  |        |                   |        |                      |        |   |       |                   |        |                      |        |
| No Education                                  | 14.7   | (7.2)  | 224               | (19.1) | 222                  | (14.1) | 1.9   | (0.6) | 232               | (42.9) | 229                  | (37.2) |
| Up to 8th grade                               | 11.2   | (11.4) | 56                | (10.9) | 111                  | (7.6)  | 23.0  | (2.5) | 205               | (4.9)  | 200                  | (3.6)  |
| 9th and 11th grade                            | 62.8   | (7.1)  | *                 | *      | *                    | *      | 19.8  | (3.2) | 244               | (6.4)  | 235                  | (5.1)  |
| 12th grade up to<br>completion of high school | 9.9  | (6.6)  | *                 | *      | *                    | *      | 26.2  | (6.2) | 236               | (6.2)  | 230                  | (4.4)  |
| GED equivalent                                | 1.4  | (4.8)  | 208               | (17.8) | 221                  | (11.9) | n.a.  | n.a.  | n.a.              | n.a.   | n.a.                 | n.a.   |
| Some education after<br>high school           | 0.0  | (0.0)  | n.a.              | n.a.   | n.a.                 | n.a.   | 25.9  | (2.7) | 268               | (4.3)  | 246                  | (3.5)  |

n.a. not applicable

\* Indicates too few observations (fewer than 60 cases, unweighted) to provide a reliable estimate.

TABLE 4.13

**Skills on the prose and document literacy scales for Nuevo Leon, Mexico, ALL**

| Scale                   | Distribution by skill levels |       |         |       |         |       |         |       |           |       |
|-------------------------|------------------------------|-------|---------|-------|---------|-------|---------|-------|-----------|-------|
|                         | Overall                      |       | Level 1 |       | Level 2 |       | Level 3 |       | Level 4/5 |       |
|                         | Mean<br>score                | S.E.  | %       | S.E.  | %       | S.E.  | %       | S.E.  | %         | S.E.  |
| Prose literacy scale    | 228                          | (0.7) | 43.2    | (1.2) | 45.8    | (1.4) | 10.3    | (0.5) | 0.7       | (0.2) |
| Document literacy scale | 226                          | (1.1) | 43.8    | (0.9) | 40.3    | (0.9) | 14.2    | (0.8) | 1.7       | (0.2) |





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