

**UNESCO Institute for Lifelong Learning
6th International Conference on Adult Education
CONFINTEA VI – May 2009**

**National Report on the Development and State of the Art
of Adult Learning and Education**

**Submitted by
United States Department of Education
United States Department of State**

In tomorrow's world a nation's wealth will derive from its capacity to educate, attract, and retain its citizens who are able to work smarter and learn faster – making educational achievement ever more important both for individuals and for society writ large.¹

The United States has a highly decentralized system of education. The 10th Amendment (1791) of the U.S. Constitution (1787) states: “The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” Therefore, the general authority to create and administer public schools is reserved for the states. There is no national school system nor are there national framework laws that prescribe curricula or control most aspects of education. The federal government, although playing an important role in education, does not establish or license schools, or govern educational institutions at any level.²

The Congress is the supreme lawmaking body of the country and has passed numerous laws directly and indirectly affecting education. In addition to the No Child Left Behind Act of 2001, these include the Higher Education Act, the Adult Education & Family Literacy Act, and the Carl D. Perkins Vocational Education Act.

The federal Department of Education is the primary agency of the federal government that implements the laws that the Congress enacts to support education at the federal level. In doing so, the Department establishes policy for, administers and coordinates much of, the federal financial assistance for education, in accordance with these laws.

The Department carries out its mission in two major ways. First, the Secretary of Education and the Department play a leadership role in the ongoing national dialogue over how to improve education for all students. This involves such activities as raising national and community awareness of the educational challenges confronting the nation, disseminating the latest research discoveries on what works in teaching and learning and helping communities work out solutions to difficult educational issues. Second, the Department pursues its twin goals of access and excellence through the administration of programs that cover every area of education and range from preschool education through postdoctoral research.³ Third, the Department also holds the responsibility of enforcing compliance of federal civil rights laws, including laws that prohibit discrimination based on age, by those receiving Department funds.

In the United States, one-quarter of the population aged 25-64 have limited English proficiency and have not completed high school, or have completed high school but earn less than a living wage, according to the U.S. Census Bureau. We know that

¹ U.S. Department of Education, *A Test of Leadership: Charting the Future of U.S. Higher Education*. Washington, D.C., 2006.

² U.S. Department of Education, *Education in the United States: A Brief Overview*, p. 1 Washington, D.C., 2003

³ *ibid*

there are 32 states with young adult populations that are not large enough to replace the retiring baby boomers and 34 million adults that want to access postsecondary education but do not have it.⁴

Showing these adults an educational and career pathway is critical. U.S. Secretary of Education Margaret Spellings expanded the traditional definition of higher education to include all learners beyond the secondary compulsory school age for purposes of initiating a national dialogue on higher education. The focus of that dialogue has been around five key recommendations from the Secretary's Commission on the Future of Higher Education to improve college access, affordability and accountability. These action items include:

- Aligning K-12 and higher education expectations;
- Increasing need-based aid for access and success;
- Using accreditation to support and emphasize student learning outcomes;
- Serving adults and other non-traditional learners;
- And enhancing affordability, decreasing costs, and promoting productivity.

By using the expanded definition and adopting a set of broad recommendations, inclusive of all adult learners, Secretary Spellings focuses the dialogue on the three federally supported adult learning programs: postsecondary education, adult vocational training, and adult literacy/English as a second language programs. It is from this perspective that this report for the 6th International Conference on Adult Education - CONFINTEA VI - is prepared. The report is submitted in four chapters, beginning with the adult literacy and English language acquisition program, followed by the adult vocational training program, and lastly, by the postsecondary program. These three chapters focus on the major investments in adult learning made by the U.S. Congress but by no means represent the entire delivery system for adult learning. The fourth chapter represents responses received from the private provider community across the United States to select questions from the UNESCO survey instrument.

It is our sincere desire to provide the conferees attending the 6th International Conference on Adult Education - CONFINTEA VI with a portrait of the rich and diverse adult learning environment in the United States focused on adult learning. The United States joins the UNESCO community of nations in renewing international momentum for adult learning and education by submitting this report of past accomplishments, current activities and future directions. We sincerely hope that the U.S. experiences and activities help in building world-wide knowledge economies and learning societies and that other nations will join with the United States in exploring best practices that impact teaching and learning in adult education. We hope our efforts have been successful.

⁴ Martinez Tucker, Sara, *Remarks for the First Meeting of the Adult Numeracy Workgroup*, Washington, D.C., March 31, 2008.

The Division of Adult Education and Literacy under the Office of Vocational and Adult Education administers the Adult Education and Family Literacy Act, Title II of the Workforce Investment Act, and has overall responsibility for enabling adults to acquire the basic skills necessary to function in today's society so that they can benefit from the completion of secondary school, enhanced family life, attaining citizenship and participating in job training and retraining programs.

Delivery

In 1998, adult education was incorporated in the Workforce Investment Act (WIA) as Title II, the Adult Education and Family Literacy Act (AEFLA). In passing AEFLA, Congress intended to provide adult education and literacy services as a means of assisting adults to complete secondary education and obtain the skills necessary for employment and self-sufficiency, and give parents the skills to become partners in their children's education.

WIA Title II provides grants to states based on a ratio of adults ages 16 and older who do not have a high school diploma and are not enrolled in secondary school. The state agency generally distributes these federal funds by formula to local educational agencies, community-based organizations, literacy organizations, institutions of higher education, libraries and other public or private nonprofit institutions that offer Adult Education and Literacy education programs that meet the requirements of the law.

AEFLA is aimed at helping students achieve a higher level of literacy through educational instruction. The law defines eligible program participants as individuals that are at least 16 years old, not enrolled in secondary school, do not have a secondary school diploma, and/or lack basic educational skills to function in society, and/or cannot read, write or speak English.

Under the National Leadership Activities (section 243) of AEFLA, the Secretary of Education is allowed to use congressionally appropriated funding to establish and carry out programs of national leadership activities which enhance the quality of adult education and literacy programs nationwide. These monies are awarded in multiyear contracts to eligible providers on a competitive basis.

Funding

The federal allocation for AEFLA grants to states for PY 2004–05 (or Fiscal Year 2004) was \$564,079,550. Nationally, this amount represented approximately 26 percent of the total amount expended at the state and local levels to support adult education and literacy in PY 2004–05. States distribute 82.5 percent of the federal funds competitively to eligible providers, using 12 quality criteria identified in the law.

The state agencies designated to receive Title II funds are also required to provide a minimum 25 percent match in state or local funds for adult education and literacy

services, and can allocate certain percentages of the funding for state leadership activities and administrative costs, and for serving institutionalized populations.

Appropriations for the National Leadership Activities (section 243) of AEFLA over the past several years amount to approximately \$9 million annually. Activities funded through the National Leadership Activities (section 243) generally are targeted to improving instruction and teacher quality, developing new models of service delivery to learners, improving accountability, and furthering research.

States that achieve superior performance across Title I and Title II (AEFLA) of the Workforce Investment Act (WIA) and the Carl D. Perkins Vocational and Technical Education Act of 1998 are eligible for incentive awards. During PY 2004-05 23 states were awarded a total of \$16.6 million up from only 19 states during PY 2003-04.

Local providers implementing EL/Civics programs are charged with incorporating instruction on the rights and responsibilities of citizenship and civic participation. Under AEFLA, Congress directed the U.S. Department of Education's Office of Vocational and Adult Education (OVAE) to provide English Literacy and Civics Education Program (EL/Civics) grants solely to states to provide services to immigrants and other limited English proficient populations to help them acquire the basic skills they need to function effectively as parents, workers, and citizens. EL/Civics state funds are awarded based on the amount of immigrants admitted for legal permanent residence within a state for the 10 most recent years and to states that experienced growth as measured by the average of the three most recent years.

While AEFLA is the largest source of federal funding for adult education, and the only program solely dedicated to that purpose, other federal programs provide means to address adult literacy and education. Title I of the WIA provides funding for vocational rehabilitation and job training programs, which may include some basic skills or literacy components. Some portion of Temporary Assistance for Needy Families (TANF) funds may also be used to support basic skills education for recipients in conjunction with their job search, job training and work experience activities. The Even Start Program, authorized as part of the Elementary and Secondary Education Act, provides money to states for family literacy services.

Impact

The local network of adult education providers is diverse; many adult education programs also work with welfare agencies at the state and local levels to provide instruction to adults needing basic skills who are receiving TANF benefits. In addition, adult education supports adults in job training programs through partnerships with One Stop Career Centers and other job training programs in the community.

Courses of instruction offered by local providers include:

- Adult Basic Education (ABE), instruction in basic skills designed for adults functioning at the lower literacy levels to just below the secondary level,
- Adult Secondary Education (ASE), instruction for adults whose literacy skills are at approximately the high school level and who are seeking to pass the General Educational Development (GED) tests or obtain an adult high school credential, and
- English Literacy (EL), instruction for adults who lack proficiency in English and who seek to improve their literacy and competence in English. EL is sometimes intergrated with civics education (EL/Civics).

The purpose of these programs, as defined in AEFLA, are to:

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

In the program year (PY) 2004–05, the state grant program enrolled 2,581,281 learners, of whom 39 percent were enrolled in Adult Basic Education (ABE), 16 percent were enrolled in Adult Secondary Education (ASE), and 44 percent were enrolled in English Literacy (EL) programs.

Adult education serves a varied population. Overall in PY 2004–05, 38 percent of students were under age 25 and more than 80 percent were under 45. Only 4 percent were age 60 or older. Age distribution, however, varied by program area. ASE students tended to be younger (67 percent were under 25) than both ABE and EL students (with 46 percent and 22 percent respectively under 25), and EL students tended to be older (21 percent were over 44) than both ABE and ASE students (15 percent and 7 percent over 44, respectively).

Hispanics represent the largest group enrolled in adult education (43 percent) in PY 2004–05, followed by whites (27 percent) and African Americans (20 percent). A plurality of 16- to 18-year-olds (42 percent) and people aged 60 and older (32 percent) were white, and a plurality of 19 to 24 year olds, 25- to 44-year-olds, and 45- to 59-year-olds were Hispanic.

Outcomes

When AEFLA was authorized in 1998, Congress made accountability for results a central focus of the new law, setting out new performance accountability requirements for states and local programs that measure program effectiveness on the basis of student academic achievement and employment related outcomes. To define and implement the

accountability requirements under AEFLA, OVAE established the National Reporting System (NRS).

PY 2004–05 marked the fifth year of the implementation of the NRS accountability requirements. In a comparison of actual performance on the core measures for adult education for the past five years under the NRS, each of the educational gain measures increased over the five program years. High school completion showed a steady gain of 18 percentage points from PY 2000–01 to PY 2004–05. Students entering postsecondary education increased from 25 to 34 percent over the period, though the growth was less dramatic than for high school completion. The two employment measures, entered employment and retained employment, showed some gain from PY 2000–01 to PY 2004–05, but spiked in PY 2001–02 and PY 2002–03, respectively.

Conclusion

There is substantial need for adult education in the United States of America. The release of NAAL⁵ shows that more work is needed to make strides in increasing adult literacy levels in the U.S. While certain population demographics increased their overall literacy levels in being able to understand document contents, read continuous text, and to use numbers to identify and compute quantitative tasks, there is little change between 1992 and 2003 in all adults' ability to read and understand continuous text, and written materials and forms. Currently, 42 million U.S. adults ages 25-64 lack proficiency in reading, speaking, writing, and computing problems⁶.

With increasing immigration of people between countries, along with large numbers of adults who lack the educational credentials and basic literacy skills needed to compete in a global marketplace, more needs to be done by world policymakers. Through sharing of best practices and strong partnerships with neighboring countries, we can ensure that only effective adult education programs are administered. United States policymakers recognize the need for adult education and happily offer their continued support for UNESCO's Conferences on Adult Education.

⁵ National Assessment of Adult Literacy (NAAL) *A first Look at Literacy of America's Adults in the 21st Century*

⁶ 2005 U.S. Census Bureau, American Community Survey

The Division of Career and Technical Education under the Office of Vocational and Adult Education administers the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) and has overall responsibility for preparing students for work immediately following high school along with incorporating rigorous and challenging academic content standards and providing a non-duplicative sequence of courses leading to an industry-recognized credential or certificate, or an associate or baccalaureate degree.

Delivery

Adult vocational education in the United States is delivered in a variety of forms. The Department of Education's National Household Education Survey revealed that almost half of the adults in the country over 16 years old participated in some form of lifelong learning during 2001 (U.S. Department of Education, 2003).

Postsecondary vocational education for adults consists of a national delivery system comprised of diverse credit and non-credit offerings at a variety of institutions. The vocational career fields represented by these institutions' offerings include, but are not limited to, agriculture and natural resources; business, management, marketing and support services; allied health professions, services, and health technicians; home economics and family and consumer sciences; human services; legal support services; protective services; computer and information sciences; engineering and related technologies; science technologies; communications technologies; construction; mechanical engineering, technology and repair; precision production; and transportation and logistics (Levesque et al. 2000).

The nation's 1,157 community colleges and technical colleges are the institutions primarily responsible for providing vocational education to the adult learner in the United States. Other providers of adult vocational education include business and industry associations, unions, and for-profit educational institutions. This conglomerate of educational providers offers courses in both the traditional classroom setting as well as online delivery to provide training to strengthen the nation's workforce.

Funding

Funding for adult vocational education in the United States derives primarily from the Perkins Act. Institutions eligible for Perkins funding provide credit-bearing courses and programs in adult and vocational education. Institutions not eligible for Perkins funding are the main providers of noncredit courses in adult and vocational education.

The primary objective of Perkins funding for adult learning is well-aligned with the nation's education and workforce development priorities. Perkins supports the vocational and technical skill, as well as the academic skill, enhancement of our nation's workforce. The law aims to utilize this training to contribute to high school completion, transition into postsecondary education and training, postsecondary degree completion, and the national employment security, earnings, and lifelong career enhancement. As a result, Perkins remains the largest single source of federal funding for the nation's high schools.

The following are descriptions of adult and vocational programs, certificates, and courses offered by post-secondary institutions that receive Perkins funding (U.S. Department of Education, 2004):

- Associate degree programs that provide degree programs or transfer-up options that require two or more years to complete (totaling approximately 60 credits)
- Institutional certificate programs designed for job-related skills enhancement, typically requiring 24-30 credits
- Industry skill certification programs developed and recognized by industry to build workforce skills assessed by an examination
- Noncredit course work that targets specific job-related skills or personal enrichment activities for vocational or avocation purposes

Funding for vocational and adult vocational education in the United States consists of the following sources and recipients (U.S. Department of Education, 2004):

- Total funding (FY 05) 1.3B with 61% of the total funding is awarded to secondary education
- 67% (or 9,500) of the nation's high schools receive funding; 1,00 vocational high schools and 800 vocational centers receive funding
- 39% (or \$348M) of the total funding is awarded to community colleges
- 25% (or \$148M) of the total funding is awarded to rural local education agencies
- 9.2 M of the nation's 15 million secondary students are enrolled in career and technology education; 5.6M community college students are enrolled in career and technology education
- In FY 03, about 813,000 high school students took college courses while in high school

Perkins funding has as its established outcome expectations to increase participation and success in programs leading to nontraditional training and employment. Also, the law emphasizes outcomes for special populations going beyond mere access to enhanced performance of certain identified groups – economically and academically disadvantaged, individuals preparing for nontraditional training and employment, single parents, displaced homemakers, and individuals with other barriers to educational achievement, including limited English proficiency.

Impact

Postsecondary vocational education programs serve diverse populations of adult learners seeking educational training for varied needs and objectives. Nearly one-third all postsecondary undergraduates in the nation and two-thirds of students enrolled at community and technical colleges are enrolled in postsecondary vocational education. A significant number of these students (21.2 percent) are from households with an annual family income of less than \$20,000, classifying them as “economically disadvantaged.”

In addition, over 30 percent of enrolled students in postsecondary vocational education have previously obtained postsecondary credentials.

These diverse characteristics reveal that students base their enrollment in postsecondary vocational education on diverse educational objectives. About 50% report that they enroll for the purpose of obtaining a credential. One-third say they enroll to obtain training or enhance their job skills. The remainder enroll for personal enrichment. National education decision makers use this data towards an understanding of why students enroll and formulate and adjust educational objectives to target specific outcomes (U.S. Department of Education, 2004).

Outcomes

A major benefit to students completing a postsecondary vocational degree include increased earnings. Women completing a postsecondary vocational degree earn nearly 47 percent more than women with a high school degree; their male counterparts earn 30 percent more. The additional education also has been cited as a significant credential for adults seeking a career in fast growing career fields such as health care and information technology.

Additional economic benefits are associated with persons with limited participation in postsecondary vocational education. Adults who even exit from occupational programs without obtaining a degree or certificate tend to benefit over counterparts without involvement in the same educational offerings. Key findings cite that these individuals exiting postsecondary vocational education programs early still earn between 5 and 8 percent more per year for each year they participate in postsecondary vocational education programs than do high school graduates with similar characteristics (U.S. Department of Education, 2004).

Conclusion

Globalization has reshaped the workplace and changed the focus on workforce and career development. (Friedman, 2005). The integration of technology with globalization has created a need for a credentialed workforce empowered by high skills, that can enable a nation to shift production to meet market demands (Bluestein, 2006). The nation's ability to meet this demand relies on diverse educational delivery system that can provide both adult vocational educational opportunities and opportunities for lifelong learning.

The Office of Postsecondary Education (OPE) administers Title II of the Higher Education Act of 1965, as amended (HEA) and has overall responsibility for administering programs that increase access to postsecondary education for disadvantaged students, strengthen the capacity of colleges and universities that serve a high percentage of disadvantaged students, and provide teacher and student development resources. OPE also administers international education and foreign language studies programs.

Delivery

Adults in the United States have access to a wide variety of informal and formal education opportunities. Informal adult learning activities include a diverse range of avocational and personal interest topics that do not result in receipt of education credentials. These programs are provided by government agencies, community organizations, businesses, religious institutions, social organizations, professional societies, as well as by traditional educational institutions. Formal postsecondary education opportunities, resulting in recognized educational credentials, are available to adults of all ages.

Figure 1 shows the structure of formal education in the United States. It presents the three levels of formal education (elementary, secondary, and postsecondary) and gives the approximate age range of people at the elementary and secondary levels. Students ordinarily spend from 6 to 8 years in the elementary grades, which may be preceded by 1 to 3 years in nursery school and kindergarten. The elementary school program is followed by a 4 to 6 year program in secondary school. Students normally complete the entire program through grade 12 by age 18, culminating with a high school diploma. While adults generally are not permitted to enroll in programs designed for children, local school systems, community organizations and other groups offer programs specifically for adults leading to basic education proficiency and high school diploma equivalency.

High school graduates who decide to continue their education may enter a technical or vocational institution, a 2-year community or junior college, or a 4-year college or university. Although high school graduates often choose to enter postsecondary education immediately after graduating from high school, access to postsecondary education is open to all adults regardless of age, or timing of high school completion. A 2-year college normally offers the first 2 years of a standard 4-year college curriculum and a selection of terminal vocational programs. Academic courses completed at a 2-year college are usually transferable for credit at a 4-year college or university. A technical or vocational institution offers postsecondary technical training leading to a specific career.

An associate's degree requires at least 2 years of college level coursework, and a bachelor's degree normally requires 4 years of college-level coursework. At least 1 year of coursework beyond the bachelor's is necessary for a master's degree, while a doctor's degree usually requires a minimum of 3 or 4 years beyond the bachelor's.

Professional schools differ widely in admission requirements and program length. Medical students, for example, generally complete a bachelor's program of premedical studies at a college or university before they can enter the 4-year program at a medical school. Law programs normally require 3 years of coursework beyond the bachelor's degree level.

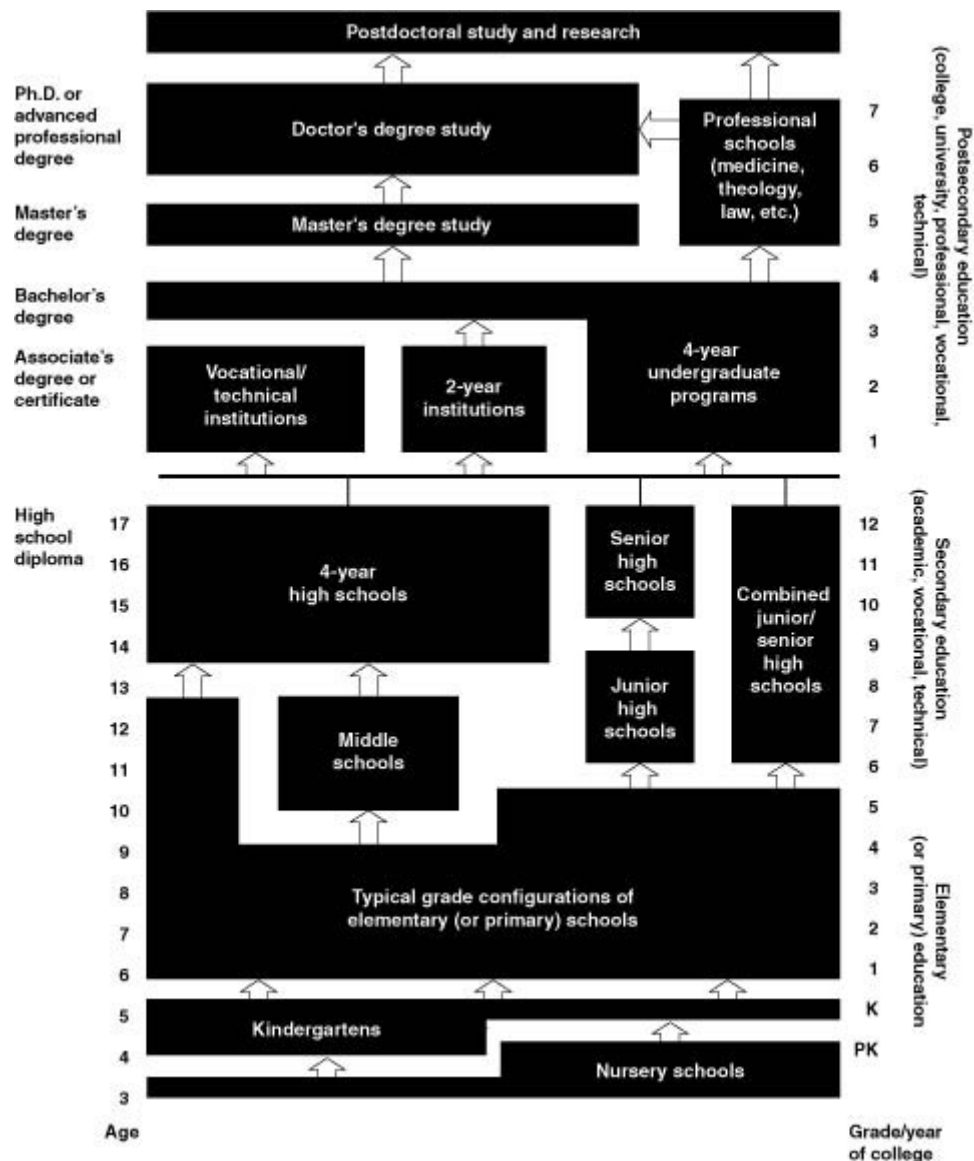
While the majority of college students in the United States are within the traditional ages of 18 through 24, substantial numbers of older students are enrolled in both 2-year and 4-year colleges. College enrollment rates for younger age groups have risen in recent years; however, substantial enrollment rates for older adults have been a characteristic of the U.S. education system for decades. The percentage of 20- to 24-year-olds enrolled in college rose from 23 percent in 1976 to 35 percent in 2006. At the same time, the rate for 25- to 29-year-olds increased from 10 percent to 12 percent, and the rate for 30- to 34-year-olds increased from 6 percent to 7 percent.

Overall, 61 percent of college students were under age 25 in 2005. Fourteen percent were 25- to 29 years of age; 13 percent were 30 to 39 years old; 7 percent were 40 to 49 years old; and 4 percent were age 50 or over. Graduate students are typically older compared to undergraduate students since students cannot enter graduate programs until they have completed their bachelor's degrees, which generally does not occur before age 22. About two-thirds (68 percent of undergraduates were under age 25, compared to about one-fifth (21 percent) of graduate students. Eleven percent of the undergraduates were 25- to 29-years of age compare to 31 percent of the graduate students. Ten percent of the under graduate students were over age 40 compared to 21 percent of the graduate students.

Another important difference in younger and older students is that older students are much less likely to be attending full-time. About 76 percent of students under age 25 attended college full-time in 2005, compared to 39 percent of those ages 30 to 39, and 30 percent of those ages 40 to 49.⁷

⁷ Snyder, T.D., Dillow, S.A., and Hoffman, C.M. (2008). *Digest of Education Statistics 2007* (NCES 2008-022). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Figure 1. The structure of education in the United States



NOTE: Figure is not intended to show relative number of institutions nor relative size of enrollment for the different levels of education. Figure reflects typical patterns of progression rather than all possible variations. Adult education programs, while not separately delineated above, may provide instruction at the adult basic, adult secondary, or postsecondary education levels.⁸

⁸ U.S. Department of Education, National Center for Education Statistics, Annual Reports Program.

National Report on Adult Basic Education and Literacy

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TABLE OF CONTENTS

LIST OF EXHIBITS	ii
ACKNOWLEDGEMENTS	iii
EXECUTIVE SUMMARY	iv
The Context for Adult Education in the United States.....	v
Organization and Structure of the Adult Education Service Delivery System	vii
The Disadvantaged Adult Learner	ix
Current Practice and Trends in ABE and ASE.....	x
Conclusion.....	xiii
INTRODUCTION	1
I. The Context for Adult Education in the United States.....	4
A. Geographic, Economic, and Demographic Factors.....	4
B. Brief Overview of the K–12 and Postsecondary Educational Systems.....	7
1. The Federal Role	7
2. State and Local Roles	8
C. Historical Background of the Adult Education System	10
II. Organization and Structure of the Adult Education Service Delivery System	12
A. Legislative Requirements Governing the Program	12
B. Governance and Funding.....	16
C. Providers.....	22
D. Federal Agencies Involved in Adult Education	25
E. National Adult Education Organizations	26
III. The Disadvantaged Adult Learner	29
A. The Target Population	29
B. Access and Participation	36
IV. Current Practice and Trends in ABE and ASE.....	40
A. Program Design and Instructional Practice	40
B. Professional Development and Teacher Quality	41
C. Assessment	43
D. Accountability	44
E. Documentation of Program Outcomes and Impact	45
V. Conclusion	48
A. Access to Adult Education in the United States.....	48
B. The Future of the System	48
GLOSSARY	50
REFERENCES	52

LIST OF EXHIBITS

Exhibit 1.	U.S. Population by Race	6
Exhibit 2.	High School Completion Rates by Race/Ethnicity, 2005	9
Exhibit 3.	OVAE National Leadership Activities	19
Exhibit 4.	Providers Receiving Federal Funds in Program Year 2007, by Provider Type	24
Exhibit 5.	Allocation of Federal Adult Education Funds in Program Year 2007, by Provider Type.....	24
Exhibit 6.	Allocation of State Adult Education Funds in Program Year 2007, by Provider Type.....	25
Exhibit 7.	Key National Adult Education Organizations	27
Exhibit 8.	U.S. Population Aged 16 and older, by Educational Attainment, 2000	29
Exhibit 9.	Adult Education Target Population by Age, 2000.....	30
Exhibit 10.	Adult Education Target Population by Race	30
Exhibit 11.	Percentage of High School Dropouts Among Persons Aged 16 to 24 Years, by Race/Ethnicity, 2006	31
Exhibit 12.	Percentage of U.S. Adults Scoring in Each NAAL Prose Literacy Level	32
Exhibit 13.	Percentage of U.S. Adults Scoring in Each NAAL Document Literacy Level	32
Exhibit 14.	Percentage of U.S. Adults Scoring in Each NAAL Quantitative Literacy Scale.....	33
Exhibit 15.	Adult Education Participants by Age, Program Year 2006–2007	37
Exhibit 16.	Adult Education Participants by Race/Ethnicity, Program Year 2006–2007	37
Exhibit 17.	Adult Education Participants by Type of Instruction Received, Program Year 2006–2007.....	38
Exhibit 18.	Number of ABE, ASE, and EL Students Achieving Core and Secondary Outcomes, Program Year 2006–2007.....	39

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EXECUTIVE SUMMARY

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has sponsored five international conferences on adult education and learning, beginning in 1949. Most recently, CONFINTEA V (the Fifth International Conference on Adult Education), held in Germany in 1997, produced an “agenda for the future,” documenting the role of adult learning in democracy, gender equality and equity, employment, sustainable development, and communication among cultures. The agenda recognized the universal right to literacy and basic education, the economic benefits of adult education, and the importance of improving adult learning. It also called for international cooperation to support a “new vision” of adult learning (UNESCO, 1997).

More than a decade later, member states are preparing for CONFINTEA VI (to be held in Brazil in 2009), which is intended to “renew international momentum for (adult learning and education) and develop the tools for implementation in order to move from rhetoric to action” (UNESCO, 2008). For CONFINTEA VI and the regional preparatory meeting, the U.S. Department of Education’s (ED’s) Office of Vocational and Adult Education (OVAE) has commissioned this National Report by RTI International.

This document, and a companion report prepared by the Center for Applied Linguistics, focuses on adult learning activities for disadvantaged individuals (defined as those with literacy skills in the “below basic” level on the National Assessment of Adult Literacy [NAAL]), primarily the adult basic education and literacy programs overseen by OVAE. These programs, which offer instruction for individuals aged 16 and older who do not have a secondary school credential, or who are learning English as a second language, are the principal means through which disadvantaged adults in the United States can improve their literacy skills.

Instruction offered through the adult basic education system is usually classified as either

- **Adult Basic Education (ABE)**, or instruction for individuals with skills at the lowest levels;
- **Adult Secondary Education (ASE)**, or instruction for individuals who are working toward secondary-level credentials; or

- **English Literacy (EL)**, or instruction to help individuals who have limited English-speaking ability improve their competence in the language.

EL students represent the largest group of adult basic education participants, accounting for 46 percent of enrollment in Program Year 2006–2007.¹ To describe the field of EL instruction and its students, ED has commissioned a second National Report by the Center for Applied Linguistics; as such, RTI’s report is concerned almost exclusively with ABE and ASE instruction.

This report is organized into five sections. Section I describes the context for adult education in the United States. Section II outlines the organization and structure of the adult education service delivery system. Section III presents descriptive information about the individuals who are eligible for, and who participate in, adult education instruction, and describes the outcomes that program participants achieve. Section IV reviews current practices and trends in ABE and ASE instruction. Section V presents conclusions concerning access to ABE and ASE instruction in the United States and the future of the service delivery system.

The Context for Adult Education in the United States

The United States is the world’s third-largest country in terms of both size and population, encompassing an area of 3.5 million square miles (5.6 million sq km). It comprises 50 states, the District of Columbia, and a number of outlying areas, including the Commonwealth of Puerto Rico. A leading industrial power with a technologically advanced economy, the United States had a Gross Domestic Product (GDP) of \$12,397.9 billion (and the third highest per capita GDP in the world) in 2005 (OECD, 2007).

The population of the United States is growing rapidly, having increased from 281 million in 2000, when the last decennial census was conducted, to an estimated 299 million in 2006. In that year, an estimated 80 percent of the U.S. population self-reported that they were White alone and 13 percent self-reported Black or African American alone.² Asian individuals

¹ The Program Year begins on July 1 and ends on June 30. Program Year 2006–2007 ended on June 30, 2007.

² For definitions of race categories used by the Census Bureau, please see the Glossary. Respondents are permitted to indicate that they are part of more than one racial group. Therefore, this report classifies the population as belonging to either one race alone, or to two or more races.

made up 4 percent of the population and 2 percent considered themselves to be of two or more races. Fifteen percent of the population was Hispanic or Latino.

In recent years, the United States has experienced a dramatic increase in immigration, resulting in a high demand for adult education services. In 2006, 13 percent of the population was foreign born. Fifty-four percent of these individuals were from Latin America (the majority from Mexico) and 27 percent were from Asia.³

The nation's educational system is highly decentralized, with states having the primary responsibility for the operation of public schools. However, the federal government and the U.S. Department of Education play an important role in education policy and practice. The Department is responsible for implementation of laws enacted by the U.S. Congress, particularly the 2001 *No Child Left Behind Act* (NCLB). This landmark legislation was designed to reform elementary and secondary schools by requiring states to develop and implement accountability systems based on state standards in reading and mathematics, and to analyze test results by poverty status, race, ethnicity, disability status, and limited English proficiency to ensure that all students' needs are met.

Each state provides students with 12 academic years, or grades, of free education, and most states also offer kindergarten programs for younger children (K–12). State compulsory attendance laws generally require students to attend classes from the time they are 6 or 7 until the age of 16 or 18 (Snyder, Dillow, and Hoffman, 2008, Table 157). After completing high school, many students immediately enter postsecondary education at 4-year colleges and universities, 2-year community colleges, or vocational/technical schools. It is not uncommon, however, for individuals to leave the educational system and return later in life.

In the most recent year for which information is available (2005), about 88 percent of adults between the ages of 18 and 24 who were not currently enrolled in school reported that they had earned a high school diploma or equivalent. This figure (known as the “high school completion rate”) varies considerably among racial/ethnic subgroups. Graduation rates for

³ U.S. Census Bureau, 2006 American Community Survey. Table B05006: Place of birth for the foreign-born population.

students in “special education” classes that serve students with disabilities are considerably lower.

Organization and Structure of the Adult Education Service Delivery System

In 1998, the Workforce Investment Act (WIA), Public Law 105-220, made adult education part of a one-stop career center system that includes many federally funded job training programs. Current legislative requirements governing the program are set forth in Title II of the WIA, known as the Adult Education and Family Literacy Act (AEFLA).⁴ Under AEFLA, adult education services are defined as services below the postsecondary level for individuals who are 16 and older, and who are not enrolled, or required to be enrolled, in secondary school. Eligible individuals 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.”

AEFLA allocates each state a minimum grant of \$250,000, with the balance of the federal allocation distributed according to the state’s ratio of adults between the ages of 16 and 60 who do not have a high school diploma or equivalent, are not enrolled in secondary school, and are beyond the age of compulsory school attendance. Since 2000, the federal government has also provided special funding for EL/Civics programs. These programs combine EL instruction and civics education, which is defined as “...contextualized instruction on the rights and responsibilities of citizenship, naturalization procedures, civic participation, and U.S. history and government to help learners acquire the skills and knowledge to become active and informed parents, workers, and community members” (Federal Register, November 17, 1999).

Reflecting a trend toward greater accountability for federally funded programs, AEFLA specifies three measures of effectiveness for adult education programs, including the following:

- ***Demonstrated improvements in literacy skill levels*** in reading, writing, and speaking the English language, numeracy (i.e., knowledge and skills needed to complete quantitative tasks), problem solving, English language acquisition, and other literacy skills.
- ***Placement in, retention in, or completion of postsecondary education, training, unsubsidized employment, or career advancement.***

⁴ Although the Workforce Investment Act expired in 2003, it has not been reauthorized by Congress.

- *Receipt of a secondary school diploma* or its recognized equivalent.

ED collects data for these measures through the Adult Education National Reporting System, which has been in operation since 2000. NRS also collects demographic data, information on students' status (e.g., whether the individual is employed, receives some type of public assistance, lives in a rural area, or has a disability), student goals, hours of instruction received, and the type of program in which the student is enrolled. Each state negotiates expected levels of performance on these indicators with ED, based partially on past performance.

OVAE is responsible for distributing federal funds to the states, ensuring that state programs are in compliance with federal regulations, reviewing and approving State Plans, and collecting and analyzing performance data. In addition to its administrative responsibilities, OVAE designs and carries out "national leadership activities" authorized under Section 243 of AEFLA. Designed "to enhance the quality of adult education and literacy programs nationwide," national leadership activities focus on improving program performance through the development and use of quality accountability data, supporting research partnerships in adult literacy and adult numeracy, assisting states in their exploration and implementation of standards-based education, and disseminating high-quality, research-based reading instruction through the adult education professional development system to improve program performance.

AEFLA makes almost any type of nonprofit entity eligible to receive federal adult education funds through competitive processes established by the states. As defined in OVAE's National Reporting System Implementation Guidelines (U.S. Department of Education, n.d.), eligible providers include local education agencies; community-based organizations; faith-based organizations; libraries; community, junior, or technical colleges; 4-year colleges or universities; other institutions of higher education; correctional institutions; and other institutions and agencies.

The Disadvantaged Adult Learner

This section describes the need for adult education services in the United States, based on educational attainment (i.e., individuals without high school diplomas) and performance on literacy assessments.

The target population. Data on educational attainment and demographics of the target population come from the *2000 Census of Population and Housing*, which describes need based on years of education and diplomas/degrees obtained.⁵ The census, conducted on a decennial basis, provides information about the number of individuals aged 16 years and older who have not attained a high school diploma or equivalent. Of 191 million U.S. adults who were aged 16 and older in 2000, 21 percent (41 million) had not attained a high school diploma or equivalent and were not enrolled in school. Approximately 37 percent of those without a diploma had less than a ninth-grade education.

Data on the literacy skills and needs of the U.S. adult population come from the 2003 *National Assessment of Adult Literacy (NAAL)*, a nationally representative survey of individuals aged 16 and older, including a sample of individuals in federal and state prisons. The NAAL describes need based on respondents' literacy skills in three areas: (1) *prose literacy*—knowledge and skills needed to understand and use information from texts; (2) *document literacy*—knowledge and skills needed to locate and use information in materials such as forms, tables, and maps; and (3) *quantitative literacy*—knowledge and skills needed to apply arithmetic operations.

Adults' performance on the NAAL is categorized into four levels: (1) below basic—having only very simple literacy skills; (2) basic—having skills required to perform simple everyday literacy activities; (3) intermediate—able to perform moderately difficult tasks; and (4) proficient, or having the ability to complete complex and difficult activities. Those scoring in the below basic level are likely to be most in need of adult education services. Fourteen percent of U.S. adults scored in the below basic level of the NAAL prose scale. Twelve percent scored at this level on the document scale, and 22 percent scored at this level on the quantitative literacy scale.

The participant population. In Program Year 2006–2007, approximately 2.4 million individuals participated in federally funded adult education programs. This figure represents only about 6 percent of the number indicated by the 2000 census as being eligible for services. EL students made up the largest group of adult education students, accounting for 46 percent of

⁵ Information presented in this section includes Puerto Rico, Guam, and the Virgin Islands.

enrollment. Thirty-eight percent of students received ABE instruction, while only 16 percent participated in ASE classes.

Sixty-nine percent of ABE and ASE students who were both pre- and post-tested made educational gains; that is, they completed or advanced one or more levels in the program.⁶ Forty-five percent of all students (including ABE, ASE, and EL students) who specified entering employment as a goal at program entry found work by the end of the first calendar quarter after they left the program, and 55 percent of students who said that they wanted to upgrade their skills in order to retain their current jobs were still employed three calendar quarters after program exit. More than 50 percent of those whose goal was to obtain a secondary school diploma or GED did so. Finally, 43 percent of those who said they wanted to achieve the skills necessary to enter a postsecondary education or training program were successful.

Current Practice and Trends in ABE and ASE

This section describes some of the most critical issues facing the field of adult education in the United States today, and the ways in which ED, the states, and local programs are addressing those issues.

Program design and instructional practice. Historically, many local adult education programs have relied on organizational practices that, while conserving resources, do not necessarily promote effective instruction. For example, “open entry/open exit” policies that allow students to enroll in, and leave, classes at any time force instructors to cope with a constantly changing group of learners. However, recent research in the field has led many local programs to examine their programs’ operations and instructional practices more critically, and research in the field of reading is informing instructors’ practices. Current research includes six 5-year projects funded through the Adult Literacy Research Network, established by ED and two other federal agencies. These projects studied the effectiveness of adult literacy interventions for low-literate adults, including the role of decoding, vocabulary, fluency, and comprehension instruction in adult literacy, as well as the explicitness of instruction.

⁶ Office of Vocational and Adult Education, NRS, Aggregate Table 4b.

Two other ED initiatives are also designed to integrate research into practice. The first, *Student Achievement in Reading (STAR)*, was created to improve reading outcomes for intermediate-level students (i.e., students who read at the fourth- to ninth-grade levels). The project combines findings from the best available reading research with practitioner knowledge to inform professional development in local ABE programs. Secondly, as part of the President’s National Mathematics Advisory Panel, ED is promoting the use of evidence-based practices to improve mathematics instruction in adult education programs. This initiative is designed to develop a sustainable professional development model that mathematics teachers in adult education programs can use in various environments. It includes initial development of the model, field testing, finalization of the model, and national dissemination.

Professional development and teacher quality. Adult educators often come to the field from other areas (e.g., K–12 education), without specific training in teaching adults. As a result, adult education leaders agree that staff development is one of the most critical needs in the field today. However, a number of factors make it difficult for states and local programs to provide instructors with professional development opportunities. These include the part-time nature of the workforce, lack of infrastructure for staff development, absence of financial incentives for adult educators to pursue advanced training, lack of knowledge about the relationship between staff development and classroom practice, and limited funding for professional development.

Despite the challenges outlined above, both ED and the states have initiated efforts to improve professional development opportunities for adult educators. At the federal level, these include national dissemination of the STAR project’s “toolkit,” which translates research findings into usable classroom strategies. A second ED project explores the potential of technology to provide instruction for adult learners and provides teachers with information about how they can employ technology in the classroom.

Assessment. State and local adult education programs must assess student progress for a variety of purposes, including initial student placement, instructional planning, assessment of student progress, and demonstration of program effectiveness. The nature of adult education programs, however, complicates assessment issues. Not only do learners have a wide range of

goals, but they participate for varying numbers of hours and may not stay in the program long. Further, because local curricula vary widely, it is difficult to ensure that assessments are aligned with instructional content.

Historically, local adult education programs used a wide variety of assessments, administered on differing schedules. As a result, it has been difficult or impossible to compare results across states or local programs, or to readily demonstrate the effectiveness of the adult education program as a whole. In recent years, however (particularly since the advent of the National Reporting System; NRS), ED and state agencies have undertaken a number of efforts to improve assessment practices in the field. At the national level, these include regulatory procedures to determine and approve the suitability of tests for measuring educational gain as defined by the NRS, in order to strengthen the quality of data collected from the states, and creation of an Adult Education Content Standards Warehouse. Many states have undertaken their own efforts to identify the competencies that adult education students should achieve, design curricula that teach those competencies, and develop appropriate assessment instruments.

Accountability. The Workforce Investment Act establishes several core indicators for adult education programs, including (1) improvements in literacy skill levels; (2) placement in, retention in, or completion of postsecondary education, training, unsubsidized employment or career advancement; and (3) receipt of a secondary school diploma or its equivalent. These measures focused on educational attainment took effect on July 1, 2000. Each applies only to students with relevant goals (e.g., the denominator for calculating the percentage of students who received secondary school diplomas includes only those students who specified that as a goal at program entry). Local programs use student assessments to assess improvements in literacy skills, and may collect other data through direct reporting by the student, follow-up surveys, or data matching with state unemployment insurance wage record databases.

The most recent *Adult Education Annual Report to Congress* (for Program Year 2004–2005) describes program performance on the core measures over a 5-year period, noting that each of the educational gain measures increased over the 5 program years. High school completion showed a steady gain of 18 percentage points from PY 2000–01 to PY 2004–05. Students entering postsecondary education increased from 25 to 34 percent over the period (U.S.

Department of Education, 2007, p. 1). Over the 5-year period, a total of 2,510,582 ABE and ASE students and 2,006,175 English literacy students made educational gains (*Exhibit 1*).

Documentation of program outcomes and impact. In the U.S. labor market, success is clearly related to educational attainment. Recent research illustrates the relationship between literacy skills and earnings, and documents the GED's effect on earnings and transition to postsecondary education. However, certain aspects of program design and operations (e.g., the multiplicity of program goals, variation in instructional practices, open enrollment policies that allow students to enter and leave the program at will) have made it difficult to document program outcomes. Measuring the adult education program's *impact*, that is, the changes that it brings about in society as a whole, is even more challenging.

Conclusion

Statistics on current participation in federally funded adult education programs document low participation rates. However, since the NRS (along with improved data collection and reporting procedures) was implemented, the percentage of students making educational gains has increased. In addition, higher percentages of participants are obtaining secondary credentials and entering postsecondary programs (U.S. Department of Education, 2007).

At the same time, OVAE and the states have undertaken a number of initiatives to improve participation and persistence, as well as the quality of adult education programs. These include support for research on adult reading and numeracy, in addition to efforts to improve instruction and teacher quality and to create new models of service delivery. Federal and state funds are also supporting the development of content standards to make instruction and assessment more relevant for adult learners, and adult education programs are exploring the potential of distance education to expand access. Most states have also undertaken efforts, in the form of either certification requirements or identification of instructor competencies, to address staff development needs in the field.

Federal policymakers are calling for increased accountability and use of research-based practices in all aspects of American education. At the K–12 level, these principles are embodied in the *No Child Left Behind* legislation. In adult education, they are reflected in AEFLA, which

sets forth measures of effectiveness for adult education programs and requires states to consider whether local programs use instructional practices that have been proven effective in decisions about the substate allocation of federal funds.

These initiatives have the potential to improve the quality of adult education programs. However, requirements for increased accountability and effectiveness create special challenges for adult education. The multiplicity of program goals makes it difficult for the program to document its effectiveness, and the research base about effective practices is limited in comparison to current knowledge about K–12 instruction. Nevertheless, as described in this Background Report, federal and state policymakers have undertaken a wide variety of initiatives to improve the quality of adult education in the United States. The extent to which they are successful will determine the future effectiveness of the program in improving outcomes for current students, and in attracting and retaining more adults who wish to improve their literacy skills.

INTRODUCTION

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has sponsored five international conferences on adult education and learning, beginning in 1949. Most recently, CONFINTEA V (the Fifth International Conference on Adult Education), held in Germany in 1997, produced an “agenda for the future,” documenting the role of adult learning in democracy, gender equality and equity, employment, sustainable development, and communication among cultures. The agenda recognized the universal right to literacy and basic education, the economic benefits of adult education, and the importance of improving adult learning. It also called for international cooperation to support a “new vision” of adult learning (UNESCO, 1997).

More than a decade later, member states are preparing for CONFINTEA VI (to be held in Brazil in 2009), which is intended to “renew international momentum for (adult learning and education) and develop the tools for implementation in order to move from rhetoric to action” (UNESCO, 2008). For CONFINTEA VI and the regional preparatory meeting, the U.S. Department of Education’s (ED’s) Office of Vocational and Adult Education (OVAE) has commissioned this National Report by RTI International.

Adult learning in the United States takes many forms. According to ED’s National Household Education Survey, 44 percent of adults aged 16 and older participated in some type of lifelong learning in 2005. Lifelong learning activities—which are sponsored by a wide variety of public and private entities—encompass work-related courses or training, personal-interest courses, part-time college, university, or vocational programs leading to degrees, diplomas, or certificates,⁷ and other activities, including basic skills training, apprenticeships, and English as a Second Language courses. Adults of all educational levels participate in lifelong learning, although those with higher educational attainment are more likely to do so (U.S. Department of Education, 2007).

⁷ Full-time participation for all or part of the year in a degree or diploma program was not counted as an adult education activity.

This document, and a companion report prepared by the Center for Applied Linguistics, focuses on adult learning activities for disadvantaged individuals (defined as those with literacy skills in the “below basic” level on the National Assessment of Adult Literacy [NAAL]), primarily the adult basic education and literacy programs overseen by OVAE. These programs, which offer instruction for individuals aged 16 and older who do not have a secondary school credential, or who are learning English as a second language, are the principal means through which disadvantaged adults in the United States can improve their literacy skills.

Instruction offered through the adult basic education system is usually classified as either

- **Adult Basic Education (ABE)**, or instruction for individuals with skills at the lowest levels;
- **Adult Secondary Education (ASE)**, or instruction for individuals who are working toward secondary-level credentials; or
- **English Literacy (EL)**, or instruction to help individuals who have limited English-speaking ability improve their competence in the language. EL instruction is sometimes integrated with English Language/Civics (EL/Civics) education.

EL students represent the largest group of adult basic education participants, accounting for 46 percent of enrollment in Program Year 2006–2007.⁸ To describe the field of EL instruction and its students, ED has commissioned a second National Report by the Center for Applied Linguistics; as such, RTI’s report is concerned almost exclusively with ABE and ASE instruction.

This document is organized as follows:

- **Section I** describes the context for adult education in the United States, including geographic, economic, and demographic factors, as well as the nature of the country’s educational system in general and the historical development of the adult education system.
- **Section II** outlines the organization and structure of the adult education service delivery system, including the legislative requirements for the program, its governance and funding, the providers that deliver adult education services, federal agencies involved in adult education, and national adult education organizations.
- **Section III** presents descriptive information about the individuals who are eligible for, and who participate in, adult education instruction. It also describes the outcomes that program participants achieve.

⁸ The Program Year begins on July 1 and ends on June 30. Program Year 2006–2007 ended on June 30, 2007.

- *Section IV* reviews current practices and trends in ABE and ASE instruction, including program design and instructional practice, professional development and teacher quality, assessment, accountability, and documentation of program outcomes and impact.
- *Section V* presents conclusions concerning access to ABE and ASE instruction in the United States and the future of the service delivery system.

I. The Context for Adult Education in the United States

In this section, the geographic, economic, and demographic context for adult education in the United States is discussed. The way in which federal, state, and local governments share responsibility for the country's educational system is also described. Finally, a brief overview of elementary, secondary, and postsecondary education in the United States is provided and the historical development of the adult education system is reviewed.

A. Geographic, Economic, and Demographic Factors

Geography. The United States is bordered by Canada to the north, Mexico to the south, and the Atlantic and Pacific Oceans to the east and west. The world's third-largest country in terms of both size and population, it encompasses an area of 3.5 million square miles (5.6 million km). It comprises 50 states, the District of Columbia, and a number of outlying areas, including the Commonwealth of Puerto Rico.

The country's population density is relatively low, averaging about 31 persons per square km.⁹ However, there are considerable differences at the regional, state, and local levels. Although the United States includes 33 cities of a half million or more, population density in many western states is less than 20 persons per square km. Both of these extremes—large cities where many language groups may be represented and extremely rural areas—pose special challenges for the adult education system.

Economy. A leading industrial power with a technologically advanced economy, the United States had a Gross Domestic Product (GDP) of \$12,397.9 billion (and the third highest per capita GDP in the world) in 2005 (OECD, 2007). Its industries are diverse and include petroleum, steel, motor vehicles, aerospace, telecommunications, chemicals, electronics, food processing, consumer goods, lumber and mining (CIA, 2008). According to the U.S. Department

⁹ In contrast, the population density in the United Kingdom is 251 persons per square km (Population Reference Bureau, 2007).

of Labor, the nation's unemployment rate¹⁰ in March 2008 was 5.1 percent (U.S. Department of Labor, n.d.).

As U.S. society becomes more technologically advanced, the literacy skills required by adults are changing. For example, experts have recognized a need for "Information and Communications Technology Literacy," which is defined as the use of "...digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society" (Educational Testing Service, n.d., p. 2). These skills are becoming more and more important as the use of technology in U.S. workplaces, communities, schools, and homes spreads.

Demography.¹¹ The population of the United States is growing rapidly, having increased from 281 million in 2000, when the last decennial census was conducted, to an estimated 299 million in 2006. Like many highly developed countries, it has an aging population, with a median age of 36. In 2006, an estimated 12 percent of the U.S. population was aged 65 years or older. More than one third of the population (35 percent) was under the age of 25. Another 28 percent were between the ages of 25 and 44, and an additional 25 percent were between the ages of 45 and 64.¹²

An estimated 80 percent of the U.S. population self-reported that they were White alone (see *Exhibit 1*) and 13 percent self-reported Black or African American alone.¹³ Asian individuals made up 4 percent of the population and 2 percent considered themselves to be of two or more races. Fifteen percent of the population was Hispanic or Latino.¹⁴

¹⁰ The percentage of people who do not have a job, have actively looked for work in the last 4 weeks, and are available for work.

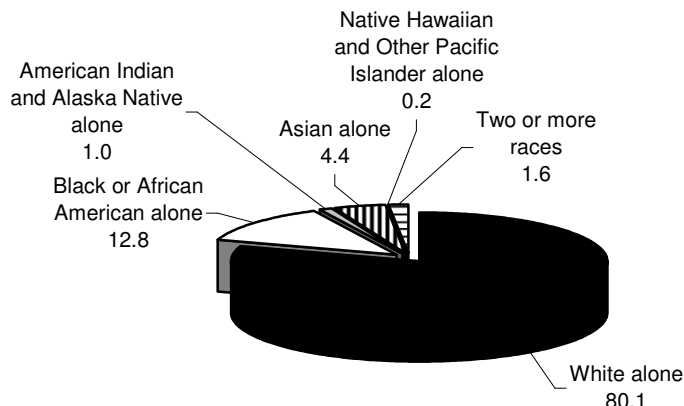
¹¹ Information in this section is for the 50 states and the District of Columbia, and does not include Puerto Rico or outlying areas.

¹² U.S. Census Bureau, Population Division. (2007). Table 1.

¹³ For definitions of race categories used by the Census Bureau, please see the Glossary. Respondents are permitted to indicate that they are part of more than one racial group. Therefore, this report classifies the population as belonging to either one race alone, or to two or more races.

¹⁴ The Census Bureau considers race and Hispanic origin to be two separate and distinct concepts. Thus, an individual of any race may be of Hispanic origin.

Exhibit 1. U.S. Population by Race



SOURCE: U.S. Census Bureau, Population Division, 2007. Table 3.

NOTE: Includes individuals of all pages. Percentages may not sum to 100 due to rounding.

In recent years, the United States has experienced a dramatic increase in immigration, resulting in a high demand for adult education services. In 2006, 13 percent of the population was foreign born. Fifty-four percent of these individuals were from Latin America (the majority from Mexico) and 27 percent were from Asia.¹⁵ Much of the foreign-born population is concentrated in large metropolitan areas, including Chicago, Dallas, Houston, Miami, New York, San Francisco, and Washington, DC (Migration Policy Institute, 2008).

Foreign-born individuals are less likely than native-born persons to have completed secondary school: in 2006, 68 percent of foreign-born individuals aged 25 and older, in comparison to 87 percent of native-born individuals, reported that they had attained at least a high school diploma or equivalent. However, foreign-born adults were just as likely as native-born persons to have a bachelor's (4-year postsecondary) degree or more, with 27 percent of each group falling into this category.¹⁶ Foreign-born individuals may need to learn English for everyday use or may wish to meet citizenship requirements, which include the ability to read, write, and speak basic English. All applicants for citizenship must demonstrate a basic knowledge of U.S. history and government by passing a "civics" test. Many schools and community programs, including adult education, offer classes to help immigrants meet these requirements.

¹⁵ U.S. Census Bureau (2006). Table B05006.

¹⁶ U.S. Census Bureau (2006). Table S0501.

The majority of the U.S. population (about 80 percent of those aged 5 and older) speaks only English at home. However, 20 percent sometimes or always use another language at home. Among this group, 56 percent indicate that they speak English “very well,” while 44 percent rank their ability as less than “very well.” The most common language spoken by those who speak English less than “very well” is Spanish or Spanish Creole (used by 53 percent of those who speak a language other than English at home).¹⁷

B. Brief Overview of the K–12 and Postsecondary Educational Systems¹⁸

In the United States, which is a federal republic, governance responsibilities are shared by the federal, state, and local levels, with each exercising similar powers (e.g., enacting laws and imposing taxes) so long as their actions do not conflict with those of a higher level. The Constitution states that powers not specifically delegated to the federal government are reserved for the 50 states and the District of Columbia. Consequently, the nation’s educational system is highly decentralized, with states having the primary responsibility for the operation of public schools. No national laws prescribe curriculum, and even the states may leave many decisions about instruction to the local level. Federal funds account for only 9 percent of total funding for elementary and secondary education. The balance comes about almost entirely from state and local sources (Snyder, Dillow, and Hoffman, 2008, Table 163). Per pupil expenditures vary by state, averaging just under \$9,000 in the most recent period for which information is available (school year 2004–2005) (Snyder, Dillow, and Hoffman, 2008, Table 174).

1. The Federal Role

Despite the decentralized nature of the country’s educational system, the federal government and the U.S. Department of Education play an important role in education policy and practice. The Department has the responsibility to enforce compliance by recipients of Department funds with regard to federal civil rights laws, including laws prohibiting discrimination based upon age. In addition, the Department provides leadership in the area of education research and statistics. The Department is primarily responsible for implementation of laws enacted by the U.S. Congress, particularly the 2001 *No Child Left Behind Act* (NCLB).

¹⁷ U.S. Census Bureau (2006). Table S1601.

¹⁸ The majority of information in this section comes from the U.S. Department of Education’s *Education in the United States: A Brief Overview*, available at <http://www.ed.gov/about/offices/list/ous/international/edus/index.html>.

This landmark legislation was designed to reform elementary and secondary schools by requiring states to develop and implement accountability systems based on state standards in reading and mathematics, and to analyze test results by poverty status, race, ethnicity, disability status, and limited English proficiency to ensure that all students' needs are met.

No Child Left Behind authorizes funding to improve instruction in local schools with large percentages of economically disadvantaged students. Schools that receive this funding and do not make "adequate yearly progress" toward the goal of all students achieving state standards must develop plans for improvement. If the school fails to make adequate progress for a second year, it must allow children to transfer to other schools if they choose to do so.

The legislation requires states to develop plans for ensuring that all teachers of core subjects are highly qualified, along with funding to develop innovative methods for improving teacher quality. *No Child Left Behind* also emphasizes use of programs and practices based on scientific research. For example, the federally funded *Reading First* program provides states with \$1 billion each year to support professional development for instructors who teach young children to read.

The Federal Department of Education also has the responsibility to enforce compliance by recipients of Department funds with regard to federal civil rights laws, including laws prohibiting discrimination based upon age. In addition, the Department provides leadership in the area of education research and statistics.

2. State and Local Roles

At the state level, legislative bodies have the ultimate authority over matters pertaining to education, but typically delegate much of their authority to state Boards of Education. Composed of elected or appointed citizens, these boards generally oversee state Departments of Education that serve as executive agencies. These state-level entities develop performance standards and curriculum guidelines, administer statewide achievement tests, distribute federal and state funding to local areas, license teachers, and establish minimum requirements for graduation. States, in turn, assign varying degrees of responsibility to local school boards, which oversee the operation of schools in specific districts. Local boards supervise the district administrator, implement curricula, establish budgets, oversee teacher training, and manage logistical details.

Each state provides students with 12 academic years, or grades, of free education, and most states also offer kindergarten programs for younger children (K–12). In elementary grades (1–6), a single teacher commonly provides instruction in all subject areas. In secondary school (grades 7–12, with the last 4 years referred to as “high school”), the day is divided into five or six periods, with classes in specific subject areas taught by various teachers. State compulsory attendance laws generally require students to attend classes from the time they are 6 or 7 until the age of 16 or 18 (Snyder, Dillow, and Hoffman, 2008, Table 157). After completing high school, many students immediately enter postsecondary education at 4-year colleges and universities, 2-year community colleges, or vocational/technical schools. It is not uncommon, however, for individuals to leave the educational system and return later in life.

Most students receive high school diplomas around the age of 18: in the most recent year for which information is available (2005), about 88 percent of adults between the ages of 18 and 24 who were not currently enrolled in school reported that they had earned a high school diploma or equivalent. This figure (known as the “high school completion rate”) has increased by 4 percentage points since 1980 (Laird, Kienzi, DeBell, and Chapman, 2007). Females were more likely to have completed high school than males (90 percent and 85 percent, respectively). However, as shown in *Exhibit 2*, completion rates varied considerably among racial/ethnic subgroups. More than 90 percent of non-Hispanic Whites and Asian/Pacific Islanders between the ages of 18 and 24 reported that they had completed high school. Approximately 90 percent of individuals who identified themselves as belonging to more than one race, and 86 percent of non-Hispanic Blacks, had done so. The completion rate was lowest for Hispanics (just over 70 percent).¹⁹

Exhibit 2. High School Completion Rates by Race/Ethnicity, 2005

Race/ethnicity	Completion rate
White, non-Hispanic	92.3
Black, non-Hispanic	85.9
Hispanic	70.2
Asian/Pacific Islander	95.8

¹⁹ These statistics include an unknown number of individuals who never enrolled in U.S. schools, either because they arrived after the usual graduation age or because they entered the United States in search of employment, rather than education. Thus, completion rates are a useful measure of educational attainment, but is not a suitable measure of the performance of the country’s educational system.

More than one race	89.5
Total	87.6

SOURCE: Laird, Kienzi, DeBell, and Chapman, 2007.

The elementary and secondary education system also includes “special education” classes that serve students with disabilities. Although graduation rates have improved in recent years, only 52 percent of special education students graduated from high school with a standard diploma in school year 2002–2003 (the latest year for which statistics are available).²⁰ Graduation rates varied by disability type: among individuals with learning disabilities, who represented nearly half of special education students, the rate was 57 percent (U.S. Department of Education, 2007).

The U.S. postsecondary education system includes public and private colleges, universities, community colleges, and technical colleges. All charge tuition, although public institutions subsidized by state and local governments reduce fees for state residents, and many students receive some form of financial assistance. More than 2,000 4-year colleges and universities award postsecondary degrees, while approximately 1,800 community and technical colleges offer 2-year associate degree programs (with students often having the option of transferring to a 4-year institution to complete a bachelor’s degree). Public postsecondary institutions are governed by state agencies or boards and accredited through nongovernmental peer evaluation. In addition to tuition, these institutions receive government funding and donations.

C. Historical Background of the Adult Education System

The federal government has provided funds to assist states in establishing and expanding adult basic education programs for more than 40 years. These programs were initially authorized in 1964 as one aspect of an antipoverty initiative. Two years later, Congress passed a separate Adult Education Act, in which it recognized the importance of literacy skills to “productive employment” and adults’ need for “sufficient basic education to enable them to benefit from job training and retraining programs and obtain and retain productive employment. ...” (Adult Education Act, P.L. 100-297, Section 311(2)).

The Adult Education Act contained many provisions that are still in effect today, including the following:

- ***A formula for distribution of federal funds to the states***, based on the proportion of adults below a certain educational level (initially 5th grade, now 12th grade) residing in each state.
- ***Limits on the percentage of program costs that can be paid by federal funds***. Initially, states were required to provide 10 percent of program costs in “matching” funds; this percentage has now increased to 25. Their share may be in the form of cash or “in-kind” contributions. (In-kind contributions are noncash contributions on which a value can be placed; e.g., classroom space, utilities, staff time, materials and supplies, etc.)
- ***A requirement for each state to submit a “State Plan”*** outlining adult education needs in the state and how federal funds will be used.
- ***Specification of the types of providers that can receive federal adult education funds***. Initially, only local school districts were eligible for federal funding. Today, almost any type of agency capable of providing literacy services may apply.
- ***Limits on the amount of funds that may be used for specific purposes*** (e.g., administrative costs and “state leadership” activities such as professional development, technical assistance, evaluation, and curriculum development).

Services under the Adult Education Act were initially targeted to individuals aged 18 years and older with no more than an eighth-grade education. Later, the age range was expanded to include individuals 16 and older who had not graduated from high school, then anyone who “lacked sufficient basic skills to function effectively in society” (Leahy, 1991, p. 33). Over time, the legislation has directed states to pay particular attention to various “special populations,” including older individuals, persons with limited English-speaking ability, refugees, individuals who are institutionalized or incarcerated, homeless persons, and those who are “educationally disadvantaged” (defined by the Adult Education Act as individuals with basic skills at or below the fifth-grade level).

In 1998, the Workforce Investment Act (WIA), Public Law 105-220, repealed the Adult Education Act and made adult education part of a one-stop career center (OSCC) system that includes many federally funded job training programs. The next section of this report reviews the current legislative requirements governing the program, which are set forth in Title II of the

²⁰ Graduation rates for students with disabilities are calculated differently from those for regular education students, and are not comparable. Some special education students receive certificates of completion, based on different requirements.

Workforce Investment Act, known as the Adult Education and Family Literacy Act (AEFLA).²¹ Also described is the organization and structure of the system through which adult education services are delivered under AEFLA, including its governance and funding, the types of instruction it offers, the providers that offer adult education services, and federal agencies and national organizations involved in adult education.

II. Organization and Structure of the Adult Education Service Delivery System

A. Legislative Requirements Governing the Program

Definition of adult education services. As defined in AEFLA, Under AEFLA, adult education services are defined as services below the postsecondary level for individuals who are 16 and older, and who are not enrolled, or required to be enrolled, in secondary school. Eligible individuals 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.” States allocate funds to local agencies that provide one or more of the following services: adult education and literacy, including workplace literacy; family literacy services; and English literacy services (P.L. 105-220, Sections s 203(1)(C) and 231(b); 20 U.S.C.9202(1)(C) and 9241(b). States must also support educational programs for individuals who are institutionalized or incarcerated.

As defined by AEFLA:

- **Workplace literacy** refers to literacy services that are intended to improve the productivity of the workforce.
- **Family Literacy Services** means services that are of sufficient intensity in terms of hours, and of sufficient duration, to make sustainable changes in a family, and that integrate all of the following activities: (a) Interactive literacy activities between parents and their children; (b) Training for parents regarding how to be the primary teacher for their children and full partners in the education of their children; (c) Parent literacy training that leads to economic self-sufficiency; and (d) An age-appropriate education to prepare children for success in school and life experiences.
- **English literacy** services help individuals with limited English proficiency achieve competency in the language.

²¹ Although Title II of the Workforce Investment Act expired in 2003 and has not been reauthorized by Congress, Congress nevertheless has appropriated funds annually under Title II during subsequent years.

For federal reporting purposes, ABE and ASE programs are organized into educational functioning levels: four for ABE (beginning ABE literacy, beginning basic education, low intermediate basic education, and high intermediate basic education) and two for ASE (low adult secondary education and high adult secondary education). According to current federal reporting guidelines, “Each level describes a set of skills and competencies that students entering at that level can do in the areas of reading, writing, numeracy, speaking, listening, functional and workplace areas.” States use standardized assessments to determine a student’s initial placement and to assess progress (U.S. Department of Education, n.d.).

Students in ASE programs may obtain a secondary credential in several ways, including the following:

- Most commonly, ASE students prepare for and take the ***General Educational Development (GED) examinations***. The GED credential, which was originally developed for the benefit of World War II veterans, is generally recognized as the equivalent of a high school diploma. The program is administered nationally by the American Council on Education.

The GED exams include norm-referenced tests in writing, social studies, science, reading, and mathematics, which students may take individually or all at once. In 2006, approximately 400,000 U.S. residents who had passed all five of the tests earned GED credentials (American Council on Education, 2007).

- Alternatively, ASE students may work toward an ***Adult High School Diploma***. Adult high schools are full-time schools offering comprehensive high school curricula for adults. There is no central administrative organization for Adult High School programs, and completion criteria vary from state to state. All but a few states offer Adult High School programs (Statelman and Schmidt-Davis, 1999).
- The national ***External Diploma Program*** allows students to earn a high school diploma by demonstrating competency in more than 60 life skills. The External Degree Program is an assessment, rather than an instructional, program: its staff provides adults with an assessment of their skills and refers them to other programs for instruction. According to the national organization, the target population for this program is adults “...who have not recently attended school or had recent test-taking experience, but who have acquired high school level academic skills in ways other than through curriculum-based programs.” Only 10 states and the District of Columbia offer the External Degree Program (National External Diploma Program, n.d.).

Under the Adult Education Act, states were prohibited from charging students for adult education services. WIA removed this restriction; however, most local programs still do not charge for their services.

Distribution of funds to state and local agencies. AEFLA allocates each state a minimum grant of \$250,000, with the balance of the federal allocation distributed according to the state's ratio of adults between the ages of 16 and 60 who do not have a high school diploma or equivalent, are not enrolled in secondary school, and are beyond the age of compulsory school attendance. To receive federal funds, each state must submit for OVAE's approval a State Plan that includes an assessment of state needs for adult education services, including "those most in need or hardest to serve" (P.L. 105-220, Section 224(b)(1)). States must also indicate how they will serve special populations that include low-income students, individuals with disabilities, single parents, "displaced homemakers" (i.e., individuals who previously worked primarily as homemakers, but whose circumstances now require them to obtain other employment), and individuals with multiple barriers to educational enhancement, including persons with limited English proficiency. Plans must include a description of the way in which AEFLA services will be coordinated with other adult education, career development, and employment and training activities in the state. Federal law sets out a number of criteria that states must consider in redistributing funds to local providers of adult education services, including the provider's success in meeting federal performance requirements, the applicant's commitment to serve individuals who are most in need of literacy services, and whether the program uses instructional practices that have been proven effective.

Since 2000, the federal government has also provided special funding for EL/Civics programs. These programs combine EL instruction and civics education, which is defined as "...contextualized instruction on the rights and responsibilities of citizenship, naturalization procedures, civic participation, and U.S. history and government to help learners acquire the skills and knowledge to become active and informed parents, workers, and community members" (Federal Register, November 17, 1999). Sixty-five percent of this funding, which is also distributed by OVAE, is allocated to states with the largest absolute need for services; the balance of the federal allocation is based on recent growth in the need for services. Each state is allocated a minimum of \$60,000 for EL/Civics programs.

Accountability. Reflecting a trend toward greater accountability for federally funded programs, AEFLA specifies three measures of effectiveness for adult education programs, including the following:

- *Demonstrated improvements in literacy skill levels* in reading, writing, and speaking the English language, numeracy (i.e., knowledge and skills needed to complete quantitative tasks), 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.

ED collects data for these measures through the Adult Education National Reporting System, which has been in operation since 2000. NRS also collects demographic data, information on students' status (e.g., whether the individual is employed, receives some type of public assistance, lives in a rural area, or has a disability), student goals, hours of instruction received, and the type of program in which the student is enrolled. Each state negotiates expected levels of performance on these indicators with ED, based partially on past performance.

Adult education's role in the one-stop system. In addition to adult education, many other federally funded education and training programs are partners in the OSCC system administered by the U.S. Department of Labor. OSCC partners include employment and training programs for adults,²² youth programs, postsecondary vocational education, and vocational rehabilitation programs. Title I of the Workforce Investment Act, which governs most of the partner programs, outlines performance indicators for those programs and creates state and local Workforce Investment Boards to oversee the OSCC system. It also requires the centers to provide a tiered system of "core," "intensive," and "training" services to help their customers obtain employment, and specifies procedures for certifying agencies that will provide training services.

Each partner program must make core services (including information about local adult education programs, initial assessment, and information on, and referral to, support services) available through the system (McNeil, 1999). However, the extent to which other adult education

²² These programs do not award diplomas or degrees.

services are integrated into the OSCC system varies across and within states. While some local programs offer classes on site, most continue to provide services at other locations, with the majority of students entering the system at these other sites.

Inclusion in the OSCC system offers both opportunities and challenges for the adult education program. Advantages include increased public awareness of adult education services, recognition of adult education's role in workforce development, convenient access to employment-related and support services for students, and closer relationships between adult education and other partner programs. On the negative side, some adult educators have expressed concern about the risk of overemphasizing employment and economic outcomes and demands on adult education resources (Elliott, 2002).

B. Governance and Funding

This section describes the roles that federal, state, and local agencies play in governing AEFLA programs and the financial contributions they make to those programs.

The federal role. OVAE is responsible for distributing federal funds to the states, ensuring that state programs are in compliance with federal regulations, reviewing and approving State Plans, and collecting and analyzing performance data. In addition to its administrative responsibilities, OVAE designs and carries out “national leadership activities” authorized under Section 243 of AEFLA. For the past several years, Congress has appropriated approximately \$9 million annually for these activities.

Designed “to enhance the quality of adult education and literacy programs nationwide,” national leadership activities are developed within the framework provided by NCLB, the pending reauthorization of AEFLA, and the federal government's Program Assessment Rating Tool (PART)²³ process. These activities focus on improving program performance through the development and use of quality accountability data, supporting research partnerships in adult literacy and adult numeracy, assisting states in their exploration and implementation of

²³ The PART is a standard method for assessing the performance of federal programs. Results of PART reviews are considered in federal budget decisions. The adult education program received a rating of “effective” (the highest possible rating) in its 2006 PART review.

standards-based education, and disseminating high-quality, research-based reading instruction through the adult education professional development system to improve program performance.

A second priority for OVAE, which also administers secondary and postsecondary vocational education programs, is to support student achievements in the early and middle grades into the high school level, including not only proficiency in reading, but also an emphasis on math and science. At the higher education level, the agency promotes excellence in workforce preparation by working to reduce the remediation needs of entering students, supporting the development of more flexible delivery systems for learning, encouraging better coordination of state policies to maximize investments, developing programs and services that respond to the needs of the business community, and creating stronger partnerships between community colleges and colleges/universities to provide full articulation, seamless transitions, and better economies of scale for students in financing of their education. National leadership activities also include (1) the development of educational and career pathways for adults that move them from adult basic education through attainment of the high school equivalency diploma and into postsecondary education and the attainment of a credit certificate or degree; (2) a community partnership initiative to engage local businesses and community organizations, including faith-based organizations, in enhancing the quality and availability of adult education programs and reaching more learners; (3) new initiatives that target the unique needs of small states and rural areas, and (4) an inventory of state policies on the award of high school equivalency diplomas.

Recent and ongoing national projects and activities have addressed a broad range of issues, including the following (specific OVAE national leadership activities are shown in *Exhibit 3*):

- ***Experimental research to identify effective strategies in reading instruction for adults*** and literacy interventions for adult English language learners who have low levels of literacy in their native language and low or no literacy skills in English.
- ***Technical assistance to states in developing and implementing content standards*** to guide instruction by local programs.
- ***The development of a toolkit and accompanying professional development for state teams*** to help instructors incorporate evidence-based reading practices into the instruction of intermediate adult basic education learners.
- ***Technical assistance to states to expand and improve technology-enabled and/or Web-enhanced distance education.***

- ***The identification of programs, practices, and policies that successfully facilitate transitions*** from adult basic education to community college certificate and degree programs.
- ***Describing and evaluating different approaches to implementing performance-based funding*** to assist all states in developing funding mechanisms that, in whole or in part, award funds on the basis of a program's success in achieving measurable results.
- ***Supporting a Center for English Language Acquisition*** to disseminate research-based information and resources to all states regarding effective English language instruction for adults and to provide intensive professional development and technical assistance to states that have experienced a rapid increase in the number of English-language learners over the past several years.
- ***Launching a technology initiative*** to (1) provide adult learners with increased access to learning via technology, (2) support states in using distance learning as a service delivery system and inform the development of national policy to support the use of distance learning in adult education, and (3) improve teachers' abilities to integrate technology into classroom learning and to use technology to extend instruction beyond the traditional brick-and-mortar classroom.
- ***Establishing, in collaboration with ED's Institute of Education Sciences, an adult numeracy initiative*** to improve the preparation of adult education instructors to deliver high-quality instruction in mathematics.

Exhibit 3. OVAE National Leadership Activities

Improving Instruction and Teacher Quality

The Center for English Language Acquisition (CAELA) Network provides states with intensive assistance to improve their teacher training systems and maintains a repository of research-based information on English language learning. CAELA assists both adult educators teaching EL learners and others working with ABE learners who are nonnative English speakers.

Standards-Based Education: OVAE has supported state-level institutionalization of standards-based education reform by creating an Adult Education Content Standards Warehouse and developing a Process Guide for Establishing State Adult Education Content Standards, as well as supporting state collaborative working groups. Under a new contract, selected states will collaborate in developing and pilot-testing training and technical assistance materials that build teachers' understanding of their state standards, translate standards into curriculum and instruction, and assess implementation of content standards in adult education classrooms.

STudent Achievement in Reading (STAR): Designed to help adult educators improve the reading achievement of intermediate-level ABE students, STAR includes a state-of-the-art "toolkit" that translates research findings into usable classroom strategies. A national network offers training for teachers and program directors and both onsite and Web-based technical assistance. OVAE is also supporting an evaluation of learner outcomes that result from using the STAR materials.

Distance Teaching and Technology Self-Assessments: National leadership funds have supported the creation of two online self-assessment tools for teachers. The first tool gives teachers an opportunity to assess their distance teaching capabilities and create a professional development plan. The second allows programs to improve the quality of instruction by determining how effectively technology is being used in the classroom.

GED Math: OVAE supported the development of training materials to improve math instruction in GED programs and a national "train-the-trainer" conference during which two staff members from each state learned how to use the materials to launch statewide training.

Professional Development in Numeracy: National leadership funds will be used to make new teacher training materials for enhancing adult numeracy instruction available to states. Teachers Investigating Adult Numeracy (TIAN), a National Science Foundation project, will be used as a foundation to develop national training materials for adult educators.

Creating New Models of Service Delivery

College Readiness: OVAE is helping local programs in four states enhance, expand, and gather data on instructional and programmatic strategies that help out-of-school youth achieve high school equivalency, demonstrate college readiness, and transition to postsecondary education. States' results are expected to include curricular, counseling, scheduling, and professional development innovations that will be packaged for dissemination nationally.

Career Pathways–Adult Basic Education Career Connections: National leadership funds are supporting the involvement of five local adult education programs in postsecondary career pathways initiatives. The project will produce a manual that demonstrates how ABE programs can operate within career pathways to prepare students for postsecondary courses leading to a degree or occupational certificate targeted toward an industry important to a regional economy.

Exhibit 3. OVAE National Leadership Activities (continued)

Online Learning: This project builds national capacity to meet the needs of low-skilled adults and English-language learners by investigating the feasibility of a Web-based learning portal. As part of the feasibility study, a prototype is being developed for low-level English-language learners. The prototype will be field-tested in 2008 with a nationwide launch planned for early fall 2008.

Distance Education: For the past 5 years, national leadership funds have supported states working toward making distance-learning options available through adult education programs. Funds underwrote development of national policies on performance reporting for distance students and providing training for teachers instructing at a distance.

Interagency Models: National leadership funds supported demonstrations that exemplified interagency partnerships in six states. The demonstrations included partnerships aimed at improving the provision of services between adult education and workforce development partners. The product of these demonstrations will be a manual on interagency partnerships, which will be available to all states.

Guide for Businesses: This project is designed to promote more business involvement in adult education and develop adult education programs that prepare students for work.

Improving Accountability

Report Cards: OVAE assisted states in developing public “performance report cards” to improve accountability of local adult education programs. Materials related to these efforts, posted on the NRS Web site, include electronic templates and training materials.

Desk Monitoring: National leadership funds supported regional meetings that helped states improve their desk monitoring procedures. Models of state data systems and other electronic tools are available on the NRS Web site.

Performance-Based Funding: National leadership funds supported case studies of performance-based funding in several states and produced a technical assistance manual for states. In 2008, OVAE will provide states with technical assistance and training on development of performance-based funding systems.

Leadership Academy: This new project will enable state administrators to attend a week-long intensive leadership seminar.

Supporting Research

Numeracy: Building on the findings of the National Mathematics Advisory Panel Report, this project will create publications and activities to improve adult numeracy instruction, promote teacher quality, identify evidence-based practices and products, and assist states in improving math outcomes for low-skilled adults.

Reading Studies (National Institute for Child Health and Development): With NICHD and the National Institute for Literacy, OVAE is supporting six studies that promise to identify new knowledge about factors that influence instruction (in reading and writing), effective program structures and models of service delivery, and how adults learn.

National Assessment of Adult Literacy (NAAL): The NAAL (described in detail later in this report) produced a comprehensive report on adult literacy in the United States.

Adult Education Program Study (AEPS): AEPS provided nationally representative data on adult education programs in Program Year 2001–2002, including the provider system, funding, expenditures, instructional services, staffing, assessment, and uses of technology. The study also included collection of background information on learner characteristics and assessment of literacy and numeracy skills.

The state role. In most states, the adult education program is located in either the Department of Education, which also oversees elementary and secondary education or, less commonly, in an agency responsible for the higher education or community college system. (Some states have laws specifying that their own funds can go only to local school districts and/or community and technical colleges.) Relatively few states (approximately 10) assign responsibility for adult education to their workforce development agency (Mack, 2006).

Each of these arrangements offers certain advantages. For example, adult education programs administered by local school districts may have access to resources, including facilities, administrative support, and supplemental local funding. Similarly, housing the program within a community or technical college system can reduce overhead costs while offering the possibility for closer coordination between adult education and postsecondary programs. Finally, assigning responsibility for adult education to a workforce development board may promote collaboration between WIA Title I and AEFLA programs (Chisman, 2002).

So long as states comply with federal guidelines, they are free to design a service delivery system that they believe best addresses their own needs and utilizes their own resources. For example, a state may adopt a specific curriculum or emphasize certain types of instruction; require local providers to offer comprehensive services or permit them to target specific needs; or adopt specific requirements concerning teacher training, class size, or program intensity. States may also choose to target their own funds to specific types of learners or providers.

This flexibility has resulted in the development of very different delivery systems by individual states. For example:

- ***Oregon***, a western state on the Pacific coast, relies primarily on its community college system to provide adult education services. The state's Department of Community Colleges and Workforce Development oversees both adult education and programs funded under Title I of the Workforce Investment Act. Like some other states, Oregon has adopted the Comprehensive Adult Student Assessment System, an integrated system of competency-based instruction and assessment.
- In ***Connecticut***, a northeastern state, state law requires each local school district to offer adult education services, either directly or through coordination with another district. The state's Department of Education administers both federal and state funds, with the state's contribution far exceeding the federal allocation. Although all types of providers are eligible to receive federal funds, state monies can go only to local

school districts. Like Oregon, Connecticut uses the Comprehensive Adult Student Assessment System.

- A southern state, *Kentucky*, was one of the first to sponsor a family literacy program, which is supported by state funds. The state relies on various types of local providers to deliver adult education services. Its “GED on TV” program, created by the Kentucky Educational Television System, has been used in many other states.
- The southwestern state of *Texas* is the country’s second largest. To provide adult education services across an area of nearly 650,000 square km, the state funds approximately 55 regional cooperatives, each of which serves as the fiscal agent for a consortium composed of a mix of organizations. Local committees and advisory boards coordinate the services of cooperative members.

The local role. Decisions made at the local level may have the greatest impact on adult education service delivery. Although states establish overall guidelines for local operations, local agencies are responsible for assessing needs in their own areas and designing programs that respond to those needs. Local agencies decide when and where services will be offered and usually have considerable flexibility in designing instructional programs. Coordination among various agencies involved in adult education also takes place primarily at the local level.

C. Providers

Types of providers. AEFLA makes almost any type of nonprofit agency eligible to receive federal adult education funds through competitive processes established by the states.²⁴ As defined in OVAE’s *National Reporting System Implementation Guidelines* (U.S. Department of Education, n.d.), eligible providers include the following:

- **Local education agencies:** public agencies that provide elementary and secondary instruction in a local area or region.
- **Community-based organizations:** private nonprofit organizations “representative of a community or a significant segment of a community.”
- **Faith-based organizations:** churches and nonprofit religious organizations.
- **Libraries:** state and community institutions that offer educational services in addition to printed and other resources.
- **Community, junior, or technical colleges:** institutions of higher education that offer 2-year degrees and certificates, but generally do not offer 4-year degrees.

²⁴ AEFLA sets out a number of criteria that states must consider in this process, including the agency’s past performance and its use of effective educational practice.

- ***Four-year colleges or universities:*** public or private nonprofit institutions of higher education that offer baccalaureate degrees.
- ***Other institutions of higher education:*** public or private nonprofit institutions of higher education that do not fall into the categories above.
- ***Correctional institutions:*** federal or state penal institutions for criminal offenders.
- ***Other institutions (noncorrectional):*** other medical or special institutions.
- ***Other agencies:*** including other federal, state, or local agencies that do not fall into the categories above.

Providers receiving federal funds. Federal funding for adult education and EL/Civics programs in the 50 states, the District of Columbia, Puerto Rico, and outlying areas totaled \$554 million for FY 2007 (U.S. Department of Education, 2007). The average award was about \$10.6 million, with allocations to individual states ranging from a low of \$900,000 to a high of nearly \$80 million.²⁵ State spending for adult education far outweighs the federal contribution, although there is considerable variation among the states. While some states contribute amounts that far exceed their federal allocation, others have very limited funds.

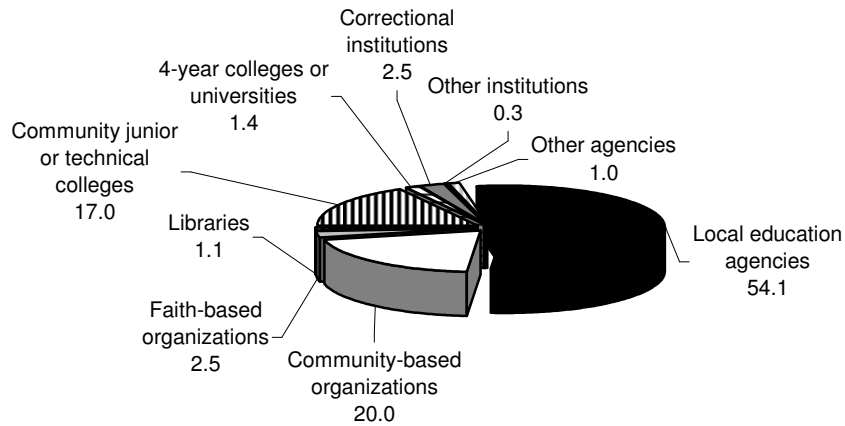
Federal and state sources provide the majority of funding available to local adult education programs. In the most recent year for which information is available, states reported that 39 percent of program funds came from the federal government, 49 percent from state government, 9 percent from local government, and the remaining 3 percent from other sources such as foundations, corporations, individual donors, and fees (according to annual Financial Status Reports to OVAE). States leverage federal dollars to support adult education services. Although they are required to provide only a 25 percent match, state contributed almost \$1.6 billion to the program during the most recent year for which information is available, equal to a match of 74 percent.

More than half of local providers (54 percent) receiving federal adult education funds in Program Year 2006–2007 were local education agencies. Public and private nonprofit agencies (consisting almost entirely of community-based organizations, along with faith-based organizations and libraries) together made up almost one quarter (24 percent) of providers.

²⁵ Does not include outlying areas.

Community, junior, and technical colleges accounted for 17 percent of agencies that received federal funds (see *Exhibit 4*).

Exhibit 4. Providers Receiving Federal Funds in Program Year 2007, by Provider Type

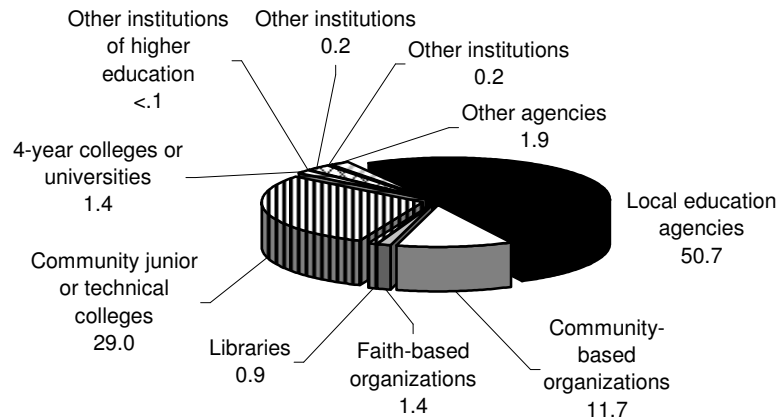


SOURCE: Office of Vocational and Adult Education National Reporting System, n.d. Aggregate Table 14: Local grantees by funding source.

NOTE: A small number of “other institutions of higher education” (five or fewer) also received federal funding. Percentages may not sum to 100 due to rounding.

As shown in *Exhibit 5*, local education agencies not only made up the largest number of providers, but also received the largest proportion of federal funds (51 percent). Community, junior, and technical colleges (which accounted for 17 percent of providers) received 29 percent of federal funds. Community-based organizations received 12 percent of the federal allocation.

Exhibit 5. Allocation of Federal Adult Education Funds in Program Year 2007, by Provider Type

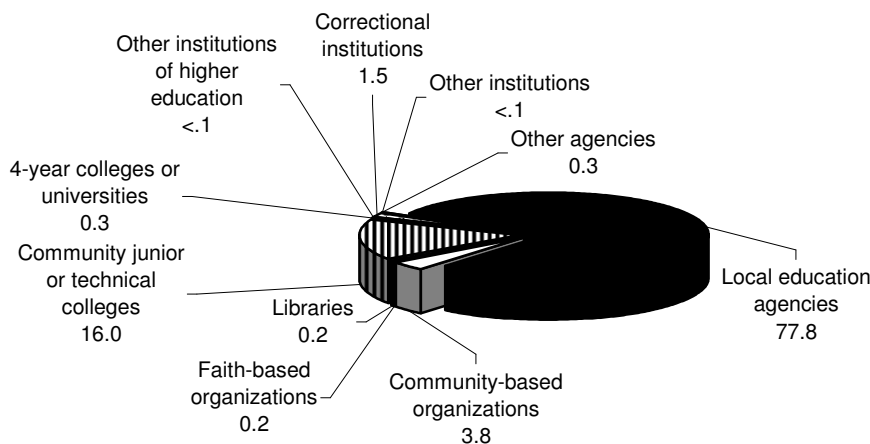


SOURCE: Office of Vocational and Adult Education National Reporting System, n.d. Aggregate Table 14: Local grantees by funding source.

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

As noted earlier, the majority of adult education funding comes from the state, rather than the national, level. As shown in *Exhibit 6*, local education agencies received more than three quarters of the state funding that was allocated to local providers (perhaps due to some states' laws specifying that state funds may go only to these agencies), and community, junior, and technical colleges received 16 percent. Community-based organizations received 4 percent of state funding and correctional institutions, 2 percent. Remaining types of providers each received less than 1 percent of state funding.

Exhibit 6. Allocation of State Adult Education Funds in Program Year 2007, by Provider Type



SOURCE: Office of Vocational and Adult Education National Reporting System, n.d. Aggregate Table 14: Local grantees by funding source.

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

D. Federal Agencies Involved in Adult Education

Although AEFLA is the principal source of funding for adult education, other federal agencies also provide educational services for a portion of the target population, or authorize adult education as one of a number of permitted activities. For example:

- ***ED's Office of Elementary and Secondary Education***, which oversees the *Even Start* family literacy program. Like AEFLA funds, Even Start monies are reallocated by the states to local programs. Even Start programs serve adults who are eligible for services under AEFLA and their children from birth to age 7.
- ***The U.S. Department of Labor*** is responsible for programs funded under Title I of the Workforce Investment Act. Title I funds may be used for adult training activities, which include basic skills instruction if it is conducted in combination with job skills

- or job readiness training. Title I also authorizes youth programs, which may include instruction leading to completion of secondary school.
- ***The Department of Health and Human Services***, which administers the *Head Start* and *Temporary Assistance to Needy Families* programs.
 - *Head Start*, a comprehensive child development program for disadvantaged preschool children and their families, received nearly \$7 billion in federal funds in Fiscal Year 2007 (Administration for Children and Families, 2007). Head Start grantees provide a wide range of services to meet families' educational, medical, nutritional, and social service needs. The Department of Health and Human Services requires all Head Start programs to provide family literacy services.
 - *Temporary Assistance to Needy Families* provides cash assistance to low-income families that include a child under the age of 18 or a pregnant woman. Program participants may receive benefits from federal funds for up to 5 years, but most adults must work at least 30 hours per week in order to maintain their eligibility. States may allow a certain percentage of adults to work a reduced number of hours if they participate in adult basic education, and many Temporary Assistance for Needy Families recipients enroll.
 - ***The Institute of Museum and Library Services, Office of Library Services***, which distributes federal funds under the Library Services and Technology Act. One purpose of the Act is to expand library services, which may include support for literacy programs.

E. National Adult Education Organizations

Many national agencies and organizations contribute to the field of adult education either through research, professional development for administrators and practitioners, advocacy, or program improvement. A complete listing of national organizations would be too extensive to reproduce here; however, *Exhibit 7* describes some of the key players in the field of adult education.

Exhibit 7. Key National Adult Education Organizations

Federally Funded Organizations	
Organization	Description and Activities
National Institute for Literacy (NIFL) (www.nifl.gov)	Established in 1991 and currently authorized under <i>No Child Left Behind</i> , NIFL was created to provide national leadership on literacy issues, including the improvement of reading instruction for children, youth, and adults, and to serve as a national resource center on research, policy, and practice. The Institute is governed by an interagency group including the Departments of Education, Labor, and Health and Human Services, and a presidentially appointed advisory board. NIFL is one of three federal agencies participating in the Partnership for Reading, whose goal is to make scientifically based reading research more accessible to educators, parents, policymakers, and others.
Center for English Language Acquisition (CAELA) Network (www.cal.org/caela)	Funded by OVAE, the <i>CAELA Network</i> works with states to improve their teacher training efforts and maintains a repository of research-based information on English language learning. The Network recently created a framework for quality professional development for teachers of adult limited-English speakers and will use it to help 12 states strengthen their professional development systems for English literacy instructors. The CAELA Network assists both adult educators teaching EL learners and others working with ABE learners who are nonnative English speakers.
Other Organizations	
Organization	Description and Activities
American Association for Adult and Continuing Education (AAACE) (www.aaace.org)	AAACE is a professional organization for educators involved in all types of adult learning. Its mission is to expand adult learning opportunities, unify adult educators, foster the development and dissemination of research and information, promote development of professional standards, and advocate for policy and social change initiatives.
American Library Association (ALA) (www.ala.org)	ALA was established in the 1870s to provide leadership for the field of library services. ALA promotes reading and literacy, and participates in national policy discussions. The organization encourages its member libraries to establish literacy programs and provides them with a variety of resources.
Commission on Adult Basic Education (COABE) (www.coabe.org)	COABE's goal is to provide leadership, communication, professional development, and advocacy for adult education professionals. The organization sponsors an annual conference and publishes a journal for adult literacy educators.
Council for Advancement of Adult Literacy (CAAL) (www.caalusa.org)	CAAL, an independent nonprofit organization, brings together representatives of both the public and private sectors. Created in 1991 for the purpose of improving the adult literacy system, CAAL has undertaken a variety of activities to promote effective policy development and program improvement.
National Adult Education Professional Development Association (NAEPDC) (www.naepdc.org)	NAEPDC was organized by state directors of adult education to provide professional development opportunities for directors and their staff members. It also disseminates information to the field and participates in policy review and development.

Exhibit 7. Key National Adult Education Organizations (continued)

Other Organizations	
Organization	Description and Activities
National Center for Family Literacy (NCFL) (www.famlit.org)	<i>NCFL</i> provides leadership in the area of family literacy, offering training and technical assistance, advocacy, and public information. The organization also conducts research and evaluation studies and develops model family literacy programs.
National Coalition for Literacy (NCL) (www.national-coalition-literacy.org)	<i>NCL</i> , which comprises more than 25 literacy organizations, was formed in 1981 to increase public awareness about literacy issues, provide information, and establish a national toll-free number to refer callers to local programs. It also promotes communication and coordination among its members, acts as an advocate, and plays a leadership role in the literacy movement.
ProLiteracy Worldwide (www.proliteracy.org)	<i>ProLiteracy Worldwide</i> was created in 2002 through a merger of the country's two largest volunteer literacy organizations (Laubach Literacy International and Literacy Volunteers of America). ProLiteracy, which has approximately 1,200 local affiliates in the 50 states and the District of Columbia, offers training and technical assistance to support the creation of local volunteer literacy programs.
Voice for Adult Literacy United for Education (VALUE) (www.valueusa.org)	<i>VALUE</i> , a national organization of adult learners, was created in 1998. Its goal is to expand the role of adult learners in adult literacy efforts, including recruitment, retention, resource development, program reform, and research. VALUE has provided leadership training for learners and participated in national policy discussions.

III. The Disadvantaged Adult Learner

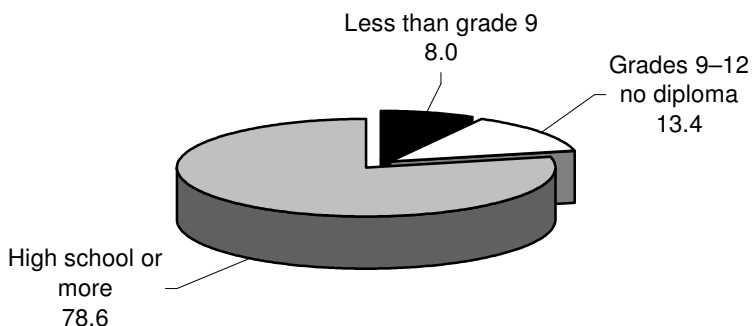
This section describes the need for adult education services in the United States, based on educational attainment (i.e., individuals without high school diplomas) and performance on literacy assessments.

A. The Target Population

Need based on educational attainment. Data on educational attainment and demographics of the target population come from the *2000 Census of Population and Housing*, which describes need based on years of education and diplomas/degrees obtained.²⁶ The census, conducted on a decennial basis, provides information about the number of individuals aged 16 years and older who have not attained a high school diploma or equivalent. As noted earlier, the census is the basis on which ED allocates federal adult education funds to the states.

Of 191 million U.S. adults who were aged 16 and older in 2000, 21 percent (41 million) had not attained a high school diploma or equivalent and were not enrolled in school (see *Exhibit 8*). Approximately 37 percent of those without a diploma have less than a ninth-grade education.

Exhibit 8. U.S. Population Aged 16 and older, by Educational Attainment, 2000



SOURCE: Lasater and Elliott, 2005.

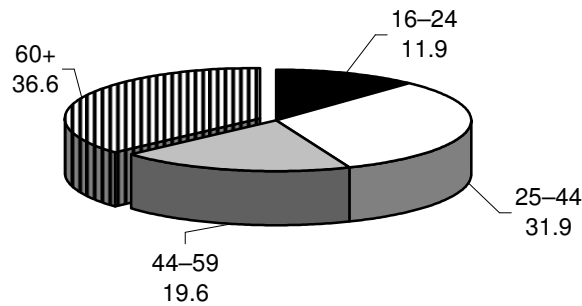
NOTE: Percentages may not sum to 100 due to rounding.

The target population is equally divided between males and females. Twelve percent of the target population is between the ages of 16 and 24, and 37 percent is aged 60 and older (see

²⁶ Information presented in this section includes Puerto Rico, Guam, and the Virgin Islands.

Exhibit 9). Many individuals in the latter group left the educational system at a time when people commonly received fewer years of formal schooling. In addition, many have left the workforce; thus, they may be less interested in adult education classes. When persons over the age of 60 are removed from the calculation, the percentage of the U.S. population aged 16 and older lacking a high school diploma is reduced to 14.

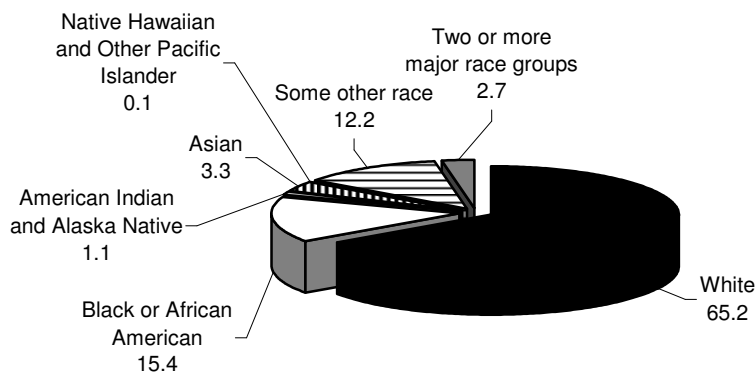
Exhibit 9. Adult Education Target Population by Age, 2000



SOURCE: Lasater and Elliott, 2005.
NOTE: Percentages may not sum to 100 due to rounding.

As shown in **Exhibit 10**, about 65 percent of target population members were White, 15 percent were Black or African American, 3 percent were Asian, 3 percent were members of two or more major race groups, 1 percent were American Indian and Alaska Native, less than 1 percent were Native Hawaiians and Other Pacific Islander, and 12 percent were some other race.

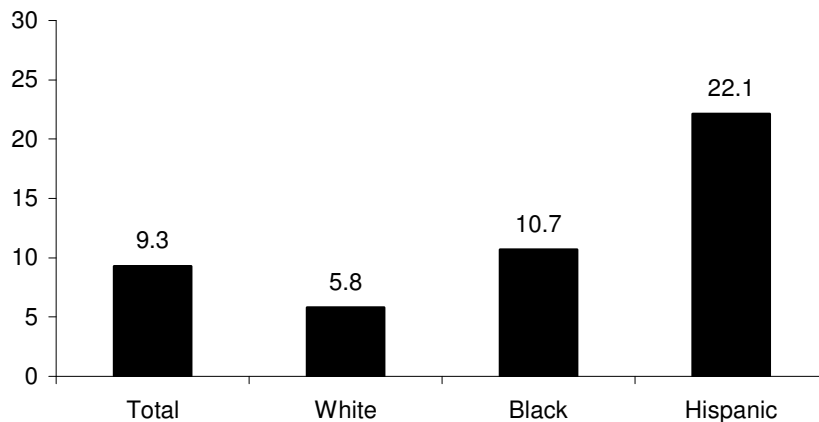
Exhibit 10. Adult Education Target Population by Race



SOURCE: Lasater and Elliott, 2005.
NOTE: Percentages may not sum to 100 due to rounding.

Individuals who “drop out” of high school (i.e., who leave without obtaining a diploma) are also more likely to belong to certain racial/ethnic groups. As shown in *Exhibit 11*, while the overall dropout rate in 2006 was about 9 percent, dropout rates were higher for Blacks (10.7 percent) and Hispanics (22.1 percent). Individuals who drop out of high school often enroll in adult education classes at a later date.

Exhibit 11. Percentage of High School Dropouts Among Persons Aged 16 to 24 Years, by Race/Ethnicity, 2006



SOURCE: Snyder, Dillow, and Hoffman, 2008.

NOTE: Total includes other racial/ethnic categories not separately shown. GED recipients are counted as high school completers. White and Black exclude persons identifying themselves as more than one race, but include persons of Hispanic ethnicity.

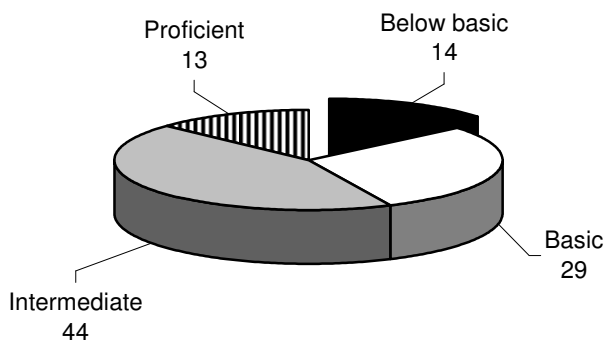
Need based on literacy skills. Data on the literacy skills and needs of the U.S. adult population come from the 2003 National Assessment of Adult Literacy (NAAL), a nationally representative survey of individuals aged 16 and older, including a sample of individuals in federal and state prisons. In addition, the Adult Education Program Survey (AEPS), funded by OVAE, provides data on the literacy skills of individuals participating in adult education programs during Program Year 2001–2002.

The National Assessment of Adult Literacy, like the earlier 1992 National Adult Literacy Survey, describes need based on respondents’ literacy skills in three areas: (1) *prose literacy*—knowledge and skills needed to understand and use information from texts; (2) *document literacy*—knowledge and skills needed to locate and use information in materials such as forms, tables, and maps; and (3) *quantitative literacy*—knowledge and skills needed to

apply arithmetic operations. The NAAL included a supplemental assessment designed specifically to test the reading skills of the least literate adults and a test of oral reading fluency.

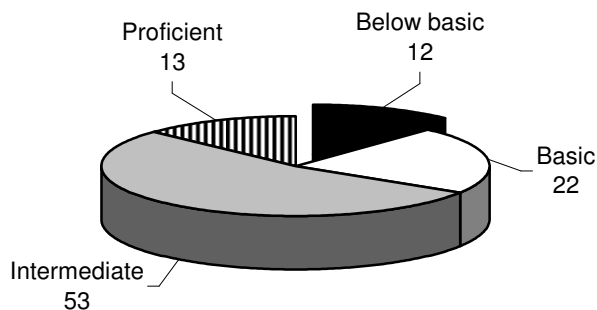
Adults' performance on the NAAL is categorized into four levels: (1) below basic—having only very simple literacy skills; (2) basic—having skills required to perform simple everyday literacy activities; (3) intermediate—able to perform moderately difficult tasks; and (4) proficient, or having the ability to complete complex and difficult activities. Those scoring in the below basic level are likely to be most in need of adult education services. As shown in *Exhibits 12–14*, 14 percent of U.S. adults scored in the below basic level of the NAAL prose scale. Twelve percent scored at this level on the document scale, and 22 percent scored at this level on the quantitative literacy. Individuals at the below basic level represented, respectively, 30 million, 27 million, and 46 million adults.

Exhibit 12. Percentage of U.S. Adults Scoring in Each NAAL Prose Literacy Level



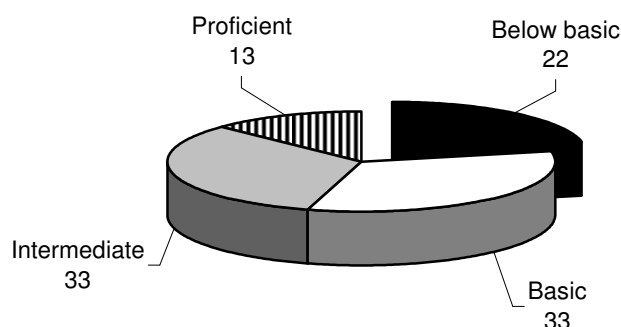
SOURCE: U.S. Department of Education, National Center for Education Statistics, NAAL, 2007.
NOTE: Percentages may not sum to 100 due to rounding.

Exhibit 13. Percentage of U.S. Adults Scoring in Each NAAL Document Literacy Level



SOURCE: U.S. Department of Education, National Center for Education Statistics, NAAL, 2007.
NOTE: Percentages may not sum to 100 due to rounding.

Exhibit 14. Percentage of U.S. Adults Scoring in Each NAAL Quantitative Literacy Scale



SOURCE: U.S. Department of Education, National Center for Education Statistics, NAAL, 2007.

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

NAAL reports (*A First Look at the Literacy Skills of America's Adults in the 21st Century*; National Center for Education Statistics, 2006, and *Literacy in Everyday Life*, Kutner et al., 2007) provide the following information about individuals with literacy skills at the below basic level:

- Thirty-nine percent of adults who scored in the below basic level on the prose scale were Hispanic. Twenty percent were Black, and 37 percent were White. In contrast, only 12 percent of the total NAAL population was Hispanic; 12 percent were Black and 70 percent were White.
- More than one quarter of adults who scored in the below basic level on the prose scale were aged 65 or older, although this age group made up only 15 percent of the total NAAL population.
- Thirty-five percent of adults scoring in the below basic level on the prose scale had spoken Spanish or Spanish and a language other than English before starting school. This group accounted for only 8 percent of the total NAAL population.
- More than half of those scoring in the below basic level on the prose scale did not have a high school diploma or GED. Only 15 percent of the total NAAL population lacked a secondary credential.
- Forty-six percent of adults scoring in the below basic level on the prose scale reported having one or more disabilities that kept them from participating fully in work, school, or other activities, compared to 30 percent of the total NAAL population
- Six percent of adults reported that they had been diagnosed or identified as having a learning disability. Twenty-four to 38 percent of these individuals scored in the below basic level on the three scales.
- Adults scoring in the below basic level on the three scales were less likely than those in higher literacy levels to be employed.

- More than one third of adults with below basic prose literacy skills, and an equal proportion of adults with below basic document literacy skills, indicated that their reading skills limited their job prospects “a lot.” (In contrast, only about 10 percent of those with skills at the basic level on the two scales said that literacy skills limited their job opportunities “a lot.”)
- One quarter of adults with below basic skills on the quantitative scale (but only 8 percent of adults with skills at the basic level) reported that their mathematics skills limited their job opportunities “a lot.”
- Twenty-six percent of adults scoring in the below basic level on the prose scale had annual household incomes of less than \$10,000.
- Approximately 40 percent of adults in the below basic prose literacy level who had children under age 8 reported that they had not read to or with their children during the previous week. (At the basic level, only one quarter of parents fell into this category.)
- Approximately 40 percent of adults in the below basic prose literacy level reported that they had a computer with Internet access, in contrast to 67 percent of those at the basic level.
- Approximately half of adults scoring at the below basic level on the prose or document literacy scales had voted in the previous presidential election, in comparison to more than 80 percent at the proficient level.
- Approximately 80 percent of adults in the below basic level on the prose or document scales reported that they had not volunteered during the past year, in comparison to 43 to 47 percent of adults at the proficient level.
- In general, women with higher levels of literacy were less likely to receive public assistance or, if they did, to receive it for shorter periods of time.
- A special component of the NAAL evaluated adults’ *health literacy*, or “...capacity to obtain, process, and understand basic health information. ...” Approximately half of adults who had not completed high school scored at the “below basic” level (in comparison, the majority of the general population had intermediate-level health literacy) (*The Health Literacy of America’s Adults*; Kutner et al., 2006).

In comparison to an earlier assessment (the National Adult Literacy Assessment, conducted in 1992), the NAAL showed no statistically significant differences in the average prose and document literacy of the total U.S. adult population. Average quantitative literacy for all adults, however, increased by 8 points (Kutner et al., 2007).

The Adult Education Program Survey (AEPS), funded by OVAE, provides data on the literacy skills of individuals participating in adult education programs during Program Year 2002–2003. In this study, a nationally representative sample of students supplied background information (including demographics and information on educational experiences and labor force

participation) and completed an assessment based on an international study in which the United States participated (the Adult Literacy and Lifeskills Survey, or ALL), thus allowing researchers to compare the literacy skills of adult education students and the general adult population (Tamassia, Lennon, Tamamoto, and Kirsch, 2007).

Like the NAAL, AEPS assessed adults' skills in prose, document, and quantitative literacy.²⁷ Forty-four percent of adult education students scored at the lowest level on the document literacy scale, in comparison to 20 percent of the total ALL population.²⁸ Hispanic, Black, and native-born adults were overrepresented among adult education students, in comparison to the population as a whole. Ninety percent of students, in comparison to 18 percent of the total population, had not completed high school. Students were younger and more ethnically diverse than the general population, less likely to have English as their native language, and more likely to be unemployed or looking for work.

More than 80 percent of adult education students scored in the lowest two (of five) levels on the prose and document literacy scales, in comparison to 53 percent of the total population. On the quantitative scale, more than 90 percent of students scored in the lowest two levels, in contrast to 59 percent of the total population. These findings, researchers conclude, could indicate that "...adult education programs are, in fact, reaching the population of adults most in need of educational services" (Tamassia, Lennon, Yamamoto, and Kirsch, 2007, p. 103).

Need versus demand. Not all subgroups of the adult education target population are equally likely to enroll in adult education instruction. In some areas—particularly those with large immigrant populations—demand for adult education services may far exceed the number of classroom spaces available. Where demand is high and local resources are inadequate to serve all prospective students, local programs may be forced to maintain waiting lists for services. On the other hand, local programs in areas where lower numbers of eligible individuals choose to participate may need to devote more attention to outreach and recruitment activities in order to fill their classes.

²⁷ Results of the two studies are not comparable.

²⁸ A small number of the total ALL population may have participated in adult education programs.

B. Access and Participation

This section describes the adult education participant population (i.e., students who enroll in federally funded adult education instruction), based on annual reports provided to ED by the states.²⁹ These data, for Program Year 2006–2007 (July 1, 2006, to June 30, 2007), come from OVAE’s National Reporting System (NRS) and aggregate reports produced by that system. The NRS provides information on

- *the total number of participants* who enrolled in adult education instruction;
- *demographic characteristics* of the participant population (gender, age, and race/ethnicity);
- *participation by type of instruction received* (i.e., ABE, EL, and ASE);
- *employment status* of the participant population; and
- *student outcomes*.

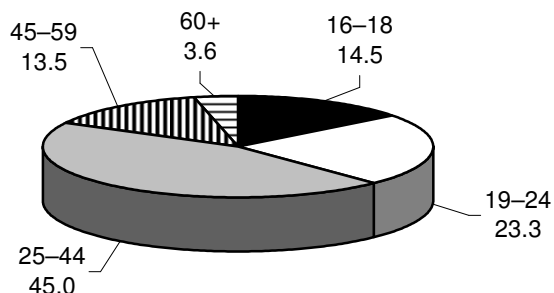
Total number of participants. In Program Year 2006–2007, approximately 2.4 million individuals participated in federally funded adult education programs. This figure represents only about 6 percent of the number indicated by the 2000 census as being eligible for services. For almost all of these individuals, participation is voluntary (exceptions include some welfare recipients and individuals on probation or parole).

Demographic characteristics of the participant population. In Program Year 2006–2007, women slightly outnumbered men in federally funded adult education programs (53.5 percent versus 46.5 percent).

As shown in *Exhibit 15*, young adults aged 16–24 made up approximately 38 percent of the participant population. Forty-five percent of participants were between the ages of 25 and 44, while only 4 percent of participants were aged 60 and older.

²⁹ Data presented in this section includes Puerto Rico and the outlying areas.

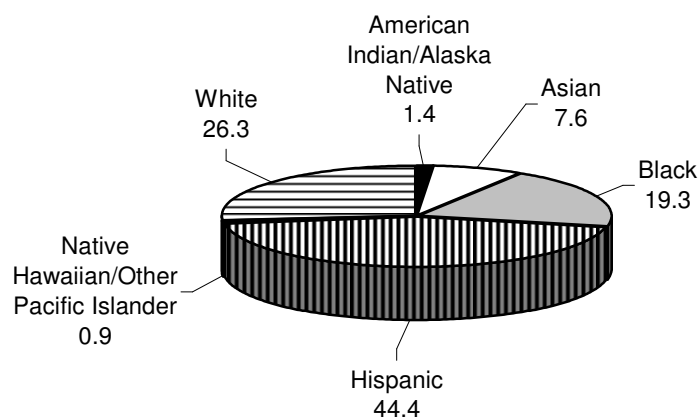
Exhibit 15. Adult Education Participants by Age, Program Year 2006–2007



SOURCE: Office of Vocational and Adult Education, National Reporting System, n.d. Aggregate Table 2.
NOTE: Percentages may not sum to 100 due to rounding.

Hispanics and Latinos made up the single largest group of adult education participants, accounting for 44 percent of enrollment (see *Exhibit 16*). Twenty-six percent of participants were White, and 19 percent were Black.

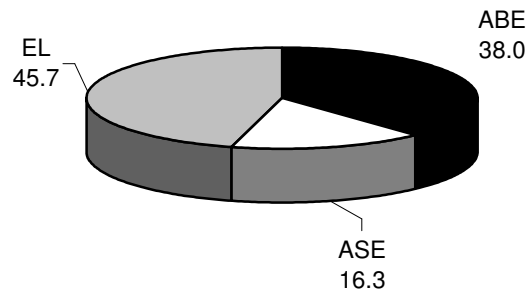
Exhibit 16. Adult Education Participants by Race/Ethnicity, Program Year 2006–2007



SOURCE: Office of Vocational and Adult Education, National Reporting System, n.d. Aggregate Table 2.
NOTE: Percentages may not sum to 100 due to rounding.

Participation by type of instruction received. In Program Year 2006–2007, EL students made up the largest group of adult education students, accounting for 46 percent of enrollment. Thirty-eight percent of students received ABE instruction, while only 16 percent participated in ASE classes (see *Exhibit 17*).

Exhibit 17. Adult Education Participants by Type of Instruction Received, Program Year 2006–2007



SOURCE: Office of Vocational and Adult Education, National Reporting System, n.d. Aggregate Table 3.
NOTE: Percentages may not sum to 100 due to rounding.

Employment status of the participant population. Forty percent of the adults who enrolled in adult education programs during Program Year 2006–2007 were employed.

Student outcomes. In Program Year 2006–2007, ED collected data for the following:

- **Core outcomes** described in AEFLA: (1) educational gains (completing or advancing one or more Educational Functioning Levels), (2) obtaining employment, (3) retaining employment, (4) receipt of a secondary school diploma or GED, and (5) placement in postsecondary education or training.
- **Secondary outcomes**, including (1) leaving public assistance, (2) achieving a work-based project learner goal,³⁰ (3) achieving citizenship skills, (4) voting or registering to vote, (5) increasing involvement in community activities, (6) increasing involvement in children’s education, and (7) increasing involvement in children’s literacy-related activities.

Sixty-nine percent of ABE and ASE students who participated in the program during Program Year 2006–2007, and who were both pre- and post-tested, made educational gains; that is, they completed or advanced one or more Educational Functioning Levels.³¹ As shown in *Exhibit 18*, 45 percent of all students (including ABE, ASE, and EL students) who specified entering employment as a goal at program entry found work by the end of the first calendar quarter after they left the program, and 55 percent of students who said that they wanted to upgrade their skills in order to retain their current jobs were still employed three calendar quarters after program exit. More than 50 percent of those whose goal was to obtain a secondary

³⁰ A workplace goal is defined as a specific workplace skill requiring 12–30 hours of instruction to teach.

³¹ Office of Vocational and Adult Education, NRS (n.d.). Aggregate Table 4b.

school diploma or GED did so. Finally, 43 percent of those who said they wanted to achieve the skills necessary to enter a postsecondary education or training program were successful.

Exhibit 18. Number of ABE, ASE, and EL Students Achieving Core and Secondary Outcomes, Program Year 2006–2007

Outcome ¹	Number and Percentage of Students Achieving Outcome
Core outcomes	
Entered employment*	75,864 (45%)
Retained employment*	82,987 (55%)
Received secondary school diploma or GED*	146,530 (53%)
Entered postsecondary education or training*	44,713 (43%)
Secondary outcomes	
Left public assistance	5,239 (18%)
Achieved work-based project learner goal	1,175 (63%)
Achieved citizenship skills**	37,260 (72%)
Voted or registered to vote***	5,472 (59%)
Increased involvement in community activities	55,875 (74%)
Increased involvement in children's education+	29,818 (61%)
Increased involvement in children's literacy-related activities+	29,674 (63%)

* Denominator includes only students who specified this outcome as a goal.

** Applies only to students in EL/Civics or citizenship programs.

*** Applies only to students who, at the time of enrollment, were not registered to vote or had never voted.

+ Applies only to students in programs that include a focus on family literacy.

¹ Educational gain measure applies to all students. Percentage of students achieving other goals is based on the number of students who specified that goal at program entry. Collection of data for secondary outcomes is optional.

SOURCE: Office of Vocational and Adult Education, National Reporting System, n.d. Aggregate Tables 5 and 11.

NOTE: Core measures apply to all students receiving 12 or more hours of service. Attainment of these outcomes cannot be attributed solely to enrollment in adult education classes.

IV. Current Practice and Trends in ABE and ASE

This section describes some of the most critical issues facing the field of adult education in the United States today, and the ways in which ED, the states, and local programs are addressing those issues.

A. Program Design and Instructional Practice

The state of the field. Historically, many local adult education programs have relied on organizational practices that, while conserving resources, do not necessarily promote effective instruction. For example, “open entry/open exit” policies that allow students to enroll in, and leave, classes at any time force instructors to cope with a constantly changing group of learners. Use of multilevel classrooms, including students at a variety of skill levels, may help local programs address funding or scheduling problems, but place great demands on instructors, who may have to spend a considerable amount of time planning a variety of independent and small-group activities. Perhaps most importantly, teachers have been forced to choose among instructional strategies based on a limited body of knowledge about which methods work best for which students.

Trends and issues. Recent research in the field has led many local programs to examine their programs’ operations and instructional practices more critically, and research in the field of reading is informing instructors’ practices. Current research includes six 5-year projects funded through the Adult Literacy Research Network, established by ED and two other federal agencies. Results of these studies, which are in their final year, are expected to be published in 2008–2009. The six studies include the following:

- *Research on Reading Instruction for Low Literate Adults*—Georgia State University, Daphne Greenberg, Principal Investigator
- *Testing Impact of Health Literacy in Adult Literacy and Integrated Family Approach Programs*—University of Illinois, Susan Levy, Principal Investigator
- *Improving Literacy Instruction for Adults*—Daryl Mellard, University of Kansas—Lawrence, Principal Investigator
- *Relative Effectiveness of Reading Programs for Adults*—Educational Testing Service, John Sabatini, Principal Investigator
- *Young Adult Literacy Problems: Prevalence and Treatment*—Wake Forest University of the Health Sciences, Frank Wood, Principal Investigator

- *Building a Knowledge Base for Teaching Adult Decoding*—University of Delaware, Charles MacArthur, Principal Investigator

These projects studied the effectiveness of adult literacy interventions for low-literate adults, including the role of decoding, vocabulary, fluency, and comprehension instruction in adult literacy, as well as the explicitness of instruction. All six employed experimental designs, and most combined quantitative and qualitative research methods. Investigators, who conducted these studies in 16 states and more than 80 sites, expected to screen nearly 73,000 adults with low literacy skills in order to identify more than 3,800 participants. Targeted recruitment plans called for more than 60 percent of those taking part in the studies to be minorities, 30 to 60 percent of participants in most studies to be African American, and 20 to 50 percent to be Hispanic or Latino, many of whom were not native speakers of English (National Institute of Child Health and Human Development, 2006).

Two other ED initiatives are also designed to integrate research into practice. The first, *Student Achievement in Reading (STAR)*, was created to improve reading outcomes for intermediate-level students (i.e., students who read at the fourth- to ninth-grade levels). The project combines findings from the best available reading research with practitioner knowledge to inform professional development in local ABE programs. Secondly, as part of the President’s National Mathematics Advisory Panel, ED is promoting the use of evidence-based practices to improve mathematics instruction in adult education programs. This initiative is designed to develop a sustainable professional development model that mathematics teachers in adult education programs can use in various environments. It includes initial development of the model, field testing, finalization of the model, and national dissemination.

B. Professional Development and Teacher Quality

The state of the field. Adult educators often come to the field from other areas (e.g., K–12 education), without specific training in teaching adults. As a result, adult education leaders agree that staff development is one of the most critical needs in the field today. However, a number of factors make it difficult for states and local programs to provide instructors with professional development opportunities.

These include the following:

- ***The part-time nature of the workforce.*** In Program Year 2006–2007, more than half of the teaching force in federally funded adult education programs (56 percent) worked part time.³² Many of these instructors are paid only for the hours they spend in the classroom, and may have to pursue staff development opportunities on their own time and at their own expense. An additional 31 percent of the teaching force comprised unpaid volunteers.
- ***Lack of infrastructure for staff development.*** Part-time instructors may work in situations (e.g., at night, away from main campuses) that afford them few opportunities to interact with colleagues or attend formal classes.
- ***Absence of financial incentives for adult educators to pursue advanced training.*** Instructors who complete advanced courses may not necessarily be rewarded with increases in pay.
- ***Lack of knowledge about the relationship between staff development and classroom practice*** (i.e., the ways in which participation in particular types of staff development affects a teacher’s classroom practices).
- ***Limited funding for professional development.*** Although states may use some of their federal funding for staff development, this amount was reduced under the Workforce Investment Act.

Trends and issues. Despite the challenges outlined above, both ED and the states have initiated efforts to improve professional development opportunities for adult educators. At the federal level, these include the following:

- National dissemination of the STAR project’s “toolkit,” which translates research findings into usable classroom strategies.
- The *Strengthening Adult Education Programs through Technology* project, which explores the potential of technology to provide instruction for adult learners and provides teachers with information about how they can employ technology in the classroom. The project includes a self-assessment that instructors can use to measure their skills in technology integration and create a customized professional development plan (U.S. Department of Education, 2006).

As with most other aspects of the adult education program, decisions about staff development take place primarily at the state and local levels. Most states support professional development activities at least partially with their own funds. State-level initiatives include the following:

- ***Development of certification requirements.*** In 2000, a survey of state directors (conducted by the National Adult Education Professional Development Consortium)

³² OVAE National Reporting System, Aggregate Table 7. Includes counselors, paraprofessionals, and teachers.

showed that about half the states had established certification processes that required teachers to have specific education, training, or knowledge before they entered the field (National Institute for Literacy, 2000).

- ***Identification of instructor competencies.*** A 2001 survey by the National Institute for Literacy indicated that, instead of establishing certification requirements, 15 states had identified sets of competencies that adult education instructors should have. Local programs can use these competencies in decisions about hiring, staff development, and evaluation activities.
- ***Provision of incentives for teachers to participate in staff development activities,*** including release time, reimbursement of costs, and funds for substitute teachers (Tolbert, 2001).

C. Assessment

The state of the field. State and local adult education programs must assess student progress for a variety of purposes, including initial student placement, instructional planning, assessment of student progress, and demonstration of program effectiveness. The nature of adult education programs, however, complicates assessment issues. Not only do learners have a wide range of goals, but they participate for varying numbers of hours and may not stay in the program long. Further, because local curricula vary widely, it is difficult to ensure that assessments are aligned with instructional content. Performance-based assessments, which require students to perform hands-on tasks, may be appropriate for adult education. However, this type of test is time consuming to administer and score, and must be standardized to meet accountability requirements.

Trends and issues. Historically, local adult education programs used a wide variety of assessments, administered on differing schedules. As a result, it has been difficult or impossible to compare results across states or local programs, or to readily demonstrate the effectiveness of the adult education program as a whole. In recent years, however (particularly since the advent of the National Reporting System; NRS), ED and state agencies have undertaken a number of efforts to improve assessment practices in the field.

First, ED has established regulatory procedures to determine and approve the suitability of tests for measuring educational gain as defined by the NRS, in order to strengthen the quality of data collected from the states. These procedures will require use of standardized and comparable tests by all state and local programs. Second, ED has created an Adult Education

Content Standards Warehouse to help states develop and align content standards in the areas of English language acquisition, mathematics, and reading, and to implement standards-based reform. Many states have undertaken their own efforts to identify the competencies that adult education students should achieve, design curricula that teach those competencies, and develop appropriate assessment instruments. For example, in Connecticut, several state agencies involved in adult education jointly developed a basic skills program based on Comprehensive Adult Student Assessment System competencies.

D. Accountability

The state of the field. As noted earlier, the Workforce Investment Act establishes several core indicators for adult education programs, including (1) improvements in literacy skill levels; (2) placement in, retention in, or completion of postsecondary education, training, unsubsidized employment or career advancement; and (3) receipt of a secondary school diploma or its equivalent. These measures focused on educational attainment took effect on July 1, 2000. Each applies only to students with relevant goals (e.g., the denominator for calculating the percentage of students who received secondary school diplomas includes only those students who specified that as a goal at program entry). Local programs use student assessments to assess improvements in literacy skills, and may collect other data through direct reporting by the student, follow-up surveys, or data matching with state unemployment insurance wage record databases.

States must negotiate expected levels of performance on these indicators with ED. They must also consider the performance of local grantees on these measures in the intrastate allocation of funds. States are also free to adopt any additional indicators that they select, and some have developed complex methods for monitoring the overall performance of their workforce development systems.

Trends and issues. The most recent *Adult Education Annual Report to Congress* (for Program Year 2004–2005) describes program performance on the core measures over a 5-year period, noting that

Each of the educational gain measures increased over the five program years. High school completion showed a steady gain of 18 percentage points from PY 2000–01 to PY 2004–05. Students entering postsecondary education increased

from 25 to 34 percent over the period... (U.S. Department of Education, 2007, p. 1).

Over the 5-year period, a total of 2,510,582 ABE and ASE students and 2,006,175 English literacy students made educational gains (Exhibit 1).

The NRS has provided OVAE with data to meet the requirements of PART reviews, which periodically assess the performance of federal programs. The program's 2006 review indicated that, in comparison to other federal programs with similar purposes and goals, adult education was more successful in recruiting and retaining its target population. The review also noted that the program's performance exceeded that of other related programs on several of the common performance measures that have been established for federal job training and employment programs, including attainment of GEDs and high school diplomas. In addition, adult education's cost per high school diploma or GED attained was lower than that of other programs: in FY 2004, the program's cost per GED/diploma was \$3,081. In comparison, the cost per GED/high school diploma for other related programs ranged from \$15,113 to \$97,603 (ExpectMore.gov, 2006, PART question 4.4).

E. Documentation of Program Outcomes and Impact

The state of the field. In the U.S. labor market, success is clearly related to educational attainment. Recent research illustrates the relationship between literacy skills and earnings, and documents the GED's effect on earnings and transition to postsecondary education. However, certain aspects of program design and operations (e.g., the multiplicity of program goals, variation in instructional practices, open enrollment policies that allow students to enter and leave the program at will) have made it difficult to document program outcomes. Measuring the adult education program's *impact*, that is, the changes that it brings about in society as a whole, is even more challenging.

Educational attainment and earnings. Without a secondary school credential, an individual is considerably more likely to be unemployed: according to the U.S. Department of Labor, 7.1 percent of adults without a secondary school diploma were unemployed in 2007, in comparison to only 4.4 percent of those whose highest level of educational attainment was a secondary credential. Individuals who had completed secondary school earned about 40 percent

more than those who had not, with median weekly earnings of \$604 versus \$428 (Bureau of Labor Statistics, 2007). Because a secondary school diploma is often required for entry into further education or training, individuals without secondary credentials may be at an economic disadvantage throughout their lives.

Literacy skills. The NAAL clearly illustrates the relationship between literacy skills and employment status, occupations attained, and income. Individuals who scored at higher levels were more likely to be employed full-time. Those at the highest literacy level were most likely to work in professional or management, business, and financial occupations, while many at lower levels had service occupations. In general, persons with higher literacy levels earned higher salaries: only 5 percent of adults at the below basic level earned \$1,450 or more per week (Kutner et al., 2007).

Receipt of a GED. Over the last 50 years, many researchers have studied the effect of obtaining a GED on individuals' success in postsecondary education and the labor market. Boesel, Alsalam, and Smith (1998) provide a summary of findings from these studies, including the following:

- GED recipients were clearly more likely to participate in postsecondary education and vocational training than were high school dropouts. Several studies found that more than half of GED recipients obtained additional education or training after they received the credential, primarily in community colleges and vocational/technical schools.
- In vocational programs, 2-year colleges, and 4-year institutions, the grades of GED recipients who graduated were about the same as those of students who had received high school diplomas.
- GED recipients were less likely than high school graduates to persist in postsecondary education.
- Receipt of a GED had little effect on employment rates.
- GED recipients earned more than high school dropouts and less than high school graduates. However, much of the difference seemed to be due to other characteristics of GED recipients (e.g., literacy and work experience).
- In general, GED recipients worked fewer hours than high school graduates and experienced more job turnover.
- GED recipients generally earned more than comparable dropouts, primarily because the credential increased the opportunities for further education and training.

Trends and issues. The NRS, implemented in July 2000, is addressing a critical need for standardized program outcome data. To promote continuous improvement of data quality, ED offers annual regional NRS training sessions for state personnel responsible for data collection and reporting, and provides information to help states improve all aspects of their data systems on the NRS Web site. Efforts to ensure continuous improvement also include negotiation of annual performance targets with states. States' performance on adult education and other measures determines their eligibility for incentive grant funding under WIA. Finally, ED employs NRS data in decisionmaking about program improvement (e.g., to prioritize program monitoring visits, research, and possible areas for technical assistance).

V. Conclusion

This section summarizes the state of access to adult education services in the United States and considers the future of the system under WIA, within the context of current federal efforts to improve the U.S. educational system in general.

A. Access to Adult Education in the United States

More than two million individuals enrolled in federally funded ABE, ASE, and EL classes during Program Year 2006–2007. Many of these students achieved documented outcomes (e.g., they advanced within the program, earned secondary credentials, or qualified for entry into postsecondary education or training). Others undoubtedly accomplished objectives that, while not captured in federal statistics, made a difference in their everyday lives: they may have acquired the skills they needed to perform job-specific tasks, carry out routine activities such as reading letters or paying bills, or participate more fully in the education of their children.

However, these individuals represent only about 6 percent of the target population. The majority of those who are eligible for services do not participate, for a variety of reasons: they may be prevented from doing so by conflicting demands, be unaware that services are available, or may not see a need to improve their literacy skills. Many who enroll do not stay long enough to make significant improvement: nearly one third of those who enrolled in Program Year 2006–2007 left the program before completing the instructional level in which they began. Further, some segments of the target population are more likely to participate in adult education programs than others. For example, younger individuals, members of some racial/ethnic groups, and recent immigrants may be more likely than others to enroll. Thus, although all members of the target population are equally *eligible* for services, they are not all equally likely to demand services.

B. The Future of the System

Statistics on current participation in federally funded adult education programs document low participation rates. However, since the NRS (along with improved data collection and reporting procedures) was implemented, the percentage of students making educational gains has increased. In addition, higher percentages of participants are obtaining secondary credentials and entering postsecondary programs (U.S. Department of Education, 2007).

At the same time, OVAE and the states have undertaken a number of initiatives to improve participation and persistence, as well as the quality of adult education programs. These include support for research on adult reading and numeracy, in addition to efforts to improve instruction and teacher quality and to create new models of service delivery. Federal and state funds are also supporting the development of content standards to make instruction and assessment more relevant for adult learners, and adult education programs are exploring the potential of distance education to expand access. Most states have also undertaken efforts, in the form of either certification requirements or identification of instructor competencies, to address staff development needs in the field.

Federal policymakers are calling for increased accountability and use of research-based practices in all aspects of American education. At the K–12 level, these principles are embodied in the *No Child Left Behind* legislation. In adult education, they are reflected in AEFLA, which sets forth measures of effectiveness for adult education programs and requires states to consider whether local programs use instructional practices that have been proven effective in decisions about the substate allocation of federal funds.

These initiatives have the potential to improve the quality of adult education programs. However, requirements for increased accountability and effectiveness create special challenges for adult education. The multiplicity of program goals makes it difficult for the program to document its effectiveness, and the research base about effective practices is limited in comparison to current knowledge about K–12 instruction. Nevertheless, as described in this Background Report, federal and state policymakers have undertaken a wide variety of initiatives to improve the quality of adult education in the United States. The extent to which they are successful will determine the future effectiveness of the program in improving outcomes for current students, and in attracting and retaining more adults who wish to improve their literacy skills.

GLOSSARY

Adult Basic Education (ABE): Instruction for individuals at the lowest skills levels; equivalent to instruction in grades 1 to 8.

Adult Education and Family Literacy Act: Title II of the Workforce Investment Act of 1998, which governs adult education programs.

Adult High School Diploma: Diploma awarded by a high school offering a comprehensive curriculum for adults.

Adult learners: Students who participate in ABE, EL, and ASE programs.

Adult Secondary Education (ASE): Instruction for individuals who are working toward a high school diploma or preparing for the General Educational Development exams; equivalent to instruction in grades 9 to 12.

Community-based organization: a private nonprofit organization that is representative of a community or a significant segment of a community (Public Law 105-220, Section 101(7)).

English Literacy (EL): Instruction to help individuals who have limited English-speaking ability improve their competence in the language.

English Language/Civics (EL/Civics) education: Programs that combine EL instruction and civics education, which is defined as "...contextualized instruction on the rights and responsibilities of citizenship, naturalization procedures, civic participation, and U.S. history and government to help learners acquire the skills and knowledge to become active and informed parents, workers, and community members" (Federal Register, November 17, 1999).

External Degree Program: Assessment program that allows students to earn a high school diploma by demonstrating competency in life skills.

Family literacy: Instructional programs that include (1) literacy instruction for parents, (2) educational activities for children, (3) interactive literacy activities involving both the parent and the child, and (4) training that prepares parents to teach their children and participate in their children's education.

General Educational Development (GED) exams: The GED exams include norm-referenced tests in writing, social studies, science, reading, and mathematics. Individuals who successfully pass all five tests earn a GED credential, which is generally considered the equivalent of a high school diploma.

Adult Literacy and Lifeskills Survey (ALL): A comparative study of adult literacy skills in six countries, conducted in the United States in 2003.

Learning disability: The Rehabilitation Services Administration defines "specific learning disability" as "a specific disorder in one or more of the central nervous system processes

involved in perceiving, understanding and/or using concepts through verbal (spoken or written) language or nonverbal means. This disorder manifests itself with a deficit in one or more of the following areas: attention, reasoning, processing, memory, communication, reading, writing, spelling, calculation, coordination, social competence and emotional maturity” (Rehabilitation Services Administration, 1985).

National Assessment of Adult Literacy (NAAL): A nationally representative survey of U.S. adults aged 16 and older, which assessed respondents’ literacy skills.

No Child Left Behind Act: Public Law 107-110, which reauthorized the Elementary and Secondary Education Act (ESEA) in 2001. ESEA is the principal federal law governing K–12 education.

Nonprofit agency: A corporation, trust, association, cooperative, or other organization that is operated primarily for scientific, educational, service, charitable, or similar purpose in the public interest; is not organized primarily for profit; and uses net proceeds to maintain, improve, or expand the operation of the organization (Federal Financial Assistance Management Improvement Act of 1999, Public Law 106-107, Section 4(6)).

Office of Vocational and Adult Education: The U.S. Department of Education office that oversees adult education, as well as career/technical education and community colleges. Within the Office of Vocational and Adult Education, responsibility for adult education is assigned to the Division of Adult Education and Literacy.

Participant population: Individuals who enroll in federally funded adult education programs.

Race categories used in the 2000 census: “White” refers to people having origins in any of the original peoples of Europe, the Middle East, or North Africa. “Black or African American” refers to people having origins in any of the Black racial groups of Africa. “American Indian and Alaska Native” refers to people having origins in any of the original peoples of North and South America, including Central America, and who maintain tribal affiliation or community attachment. “Asian” refers to people having origins in any of the original peoples of the Far East, Southeast Asian, or the Indian subcontinent. “Native Hawaiian or Other Pacific Islander” refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands (Grieco and Cassidy, 2001).

Target population: Individuals eligible for adult education services.

Workforce Investment Act (WIA): Federal legislation (Public Law 105-220) that created the one-stop workforce development system, in which adult education is a partner.

Workplace literacy: Literacy services intended to improve the productivity of the workforce.

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Education for Adult English Language Learners in the United States

Center for Adult English Language Acquisition (CAELA) Network

Center for Applied Linguistics

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Table of Contents

Overview	3-5
I. US Foreign Born Population	6-13
II. Foreign Born Participation and Outcomes in Adult Education Programs	14-18
III. Trends in Program Design and Instructional Practice	19-34
IV. Practice and Trends in Professional Development and Teacher Quality	35-41
V. Trends in Assessment and Accountability	42-54
VI. Future Directions for Lifelong Learning	55-60
VII. Conclusion	61
References	62-73
Appendix 1: NRS ESL Educational Functioning Levels	74-76

Overview

Adult English language learners comprise a substantial segment of the population that enrolls in adult education programs in the United States. According to the most recent statistics for program year 2004–2005, 44% of all participants (1,142,749 out of a total of 2,581,281) enrolled in state-administered adult education programs were enrolled in English as a second language (ESL) classes (U.S. Department of Education, Office of Vocational and Adult Education, 2007a). This percentage does not include English language learners who are being served within other segments of the system, such as adult basic education (ABE) or adult secondary education (ASE) classes.

These learners want to improve their lives as individuals, community and family members, and workers. Many of them are settling into communities that previously have not had large populations of immigrants. To meet the increasing demand for English language instruction, existing adult education programs are expanding, and new ones are being established. However, qualified instructors and resources to support effective instruction are limited. Goal 5 of the strategic goals and objectives of the U.S. Department of Education (2002) mandates enhancing the quality of and access to post-secondary and adult education. At the same time, changes in federal policy that require stricter accountability for reporting program outcomes are changing the way that adult education programs operate.

The federal statute that established adult basic education programs (the Economic Opportunity Act of 1964) authorized instruction “toward the elimination of the inability of all adults to read and write English,” thus establishing services for English language learners within the federally funded adult education system. Subsequent legislation

continued to support language instruction for immigrants and refugees, sometimes setting aside discretionary monies for services for specific populations (e.g., Cuban, Haitian, and Southeast Asian refugees) or for the development and teaching of specific content such as citizenship and civics (U.S. Department of Education, Office of Vocational and Adult Education, 1991). Adult education classes for English language learners are offered through agencies that are eligible to receive federal adult education funds through the state delivery systems. In 2003-2004, the majority of adult basic education programs (ABE, ASE, and ESL) were administered through local school districts (54%), community-based organizations (24%) and community colleges (17%) (U.S. Department of Education, Office of Vocational and Adult Education, 2005).

As the number of English language learners has grown, many states and territories have appointed an ESL specialist to work closely with the state director of adult education to oversee services to the population of English language learners. Adult ESL services are also provided through other organizations that may or may not receive federal funding. These include faith-based organizations, volunteer-based organizations, museums, libraries, private language schools, and academic institutions. Significant numbers of adult English language learners are served in programs sponsored by community-based organizations and large national volunteer literacy organizations such as ProLiteracy. However, we do not have reliable data on the number of English language learners served through these organizations.

This paper describes education for adult English language learners in the United States today. Part I describes the total foreign-born population (who they are, where they are from, where they have settled, what their goals are). Part II describes foreign born

who enroll in adult ESL programs, their access to and participation in adult education programs, and the factors that relate to their participation in adult education. Part III describes program design and instruction in programs serving adult English language learners. Part IV examines professional development and teacher quality. Part V describes the assessment and accountability system in the United States. Part VI addresses future directions in English literacy education and lifelong learning for adult English language learners.

I. U.S. Foreign-Born Population

This section describes the foreign-born population in the United States, presents demographic data on this population, and identifies factors related to their access to and participation in state-administered adult education programs. The foreign-born population consists of legal immigrants (including naturalized citizens), refugees and asylees, and undocumented immigrants. Demographic information about the foreign-born population in the United States is collected through the United States Census Bureau and related analyses such as the Current Population Survey (CPS) and the American Community Survey (ACS); the U.S. Department of Labor; the Office of Refugee Resettlement (ORR); and the U.S. Department of Education. Organizations such as the Migration Policy Institute, the Pew Hispanic Center, and the Asian American Justice Fund use data from the U.S. Census Bureau to study the demographic, educational, linguistic, occupational, and socioeconomic status of the foreign-born population as well. Nationwide surveys, such as the National Assessment of Adult Literacy (NAAL) (2003), provide additional information about the educational achievement of the foreign born.

Background Information on the Foreign Born

Although data focusing specifically on learners enrolled in adult ESL or adult education classes are limited, data on the foreign-born population is documented in census reports. These data include number and percentage of the foreign born, native language and country, English speaking ability, age, educational attainment, employment status, and income level. The United States has seen a steady increase in the numbers of the foreign born since the 1970s. Current data on the foreign-born population have been

generated from the U.S. Census Bureau's 2006 American Community Survey (ACS). According to the ACS, there were 37,547,789 foreign born in the United States in 2006, representing 12.5% of the total U.S. population. In contrast, there were 28.4 million foreign born in the United States in 2000. Between 2002 and 2006, the annual level of immigration averaged 1.8 million. In 2006, 47% of the foreign born were of Hispanic origin; 31% of all foreign born were born in Mexico. Other highly represented immigrant groups – from the Philippines (4.4%), China (4.1%), India (4.0%), Vietnam (3%), El Salvador (2.8%), Korea (2.7%), Cuba (2.5%), Canada (2.3%), and the United Kingdom (1.8%) – made up, with Mexican immigrants, 58.4% of all foreign born residing in the United States in 2006 (Terrazas, Batalova, & Fan, 2007).

Hispanics and Asians are the two largest groups represented in the foreign-born population. From 1990 to 2004, the Asian and Pacific Islander population doubled in size, from 7 million to 14 million in the Asian population and from 500,000 to approximately 1 million among Pacific Islanders (Asian American Justice Center and Asian Pacific American Legal Center, 2006). Projections for the size of the Hispanic population range from 15.5% of the total U.S. population in 2010 to 24.4% of the total U.S. population in 2050 (U.S. Census Bureau, 2004).

Refugees and naturalized citizens are two sub-groups of the foreign born. In 2006, 41,150 refugees were admitted to the United States, a 23.4% decrease from 2005. The majority of these refugees were from Somalia (25%), Russia (14.6%), and Cuba (7.6%). Of the 37.5 million foreign born in the United States in 2006, 15.7 million (almost 42%) were naturalized citizens (Terrazas, Batalova, & Fan, 2007).

According to the 2006 ACS, 8.1% of the foreign-born population were 0-17 years of age, 9.6% were 18-24, 43.7% were 25-44, 27.2% were 45-64, and 11.5% were 65 years old and older.

Geographical Distribution of the Foreign Born

Many states have experienced record growth in their immigrant populations (McHugh, Gellatt, & Fix, 2007); from 2000 to 2005, 14 states experienced a 30% or greater increase in foreign-born populations (Jensen, 2006). More immigrants are settling in states with employment opportunities in construction, industry, and tourism (Singer & Wilson, 2006). In 2006, the top five US states by the number of foreign born were California (9,902,067), New York (4,178,962), Texas (3,740,667), Florida (3,425,634), and Illinois (1,773,600). However, between 2000 and 2006, the five states with the largest percent growth of the foreign-born population were Delaware (53.1%), South Carolina (51.8%), Nevada (50.3%), Georgia (48.9%), and Tennessee (48.7%) (Terrazas, Batalova, & Fan, 2007).

English Speaking Ability and Literacy

The educational levels and backgrounds, native language literacy, and English language proficiency of immigrant adults in the United States vary widely, but certain patterns in these areas appear in measurements of English literacy. ACS data in 2006 showed that 26.7% of the foreign-born aged 25 and older had a bachelor's or higher degree, whereas 32% did not have a high school diploma. ACS data also showed that 52.4% of the 37.2 million foreign-born persons age 5 and older reported speaking English less than "very well" in 2006, compared with 51.0% of 30.7 million in 2000. Eighty-four percent reported speaking a language other than English at home. Data also show that

31.4% of the foreign-born population live in linguistically isolated households (one “in which no person 14 years old and over speaks only English and no person 14 years old and over who speaks a language other than English speaks English ‘very well’,” U.S. Census Bureau, 2002, p. B32).

According to one report (McHugh, Gelatt, & Fix, 2007), 5.8 million legal permanent residents are in need of English language instruction to pass the naturalization exam and be able to participate in civic life; 6.4 million unauthorized immigrants will require English language instruction to pass the naturalization exam and obtain legal permanent resident status; and 2.4 million immigrant youths aged 17-24 need English instruction in order to begin postsecondary education without remediation. In addition, 55% of immigrants eligible to naturalize, and 67% of immigrants soon to be eligible, have limited English proficiency (Passel, 2007).

Although many first-generation adult immigrants to the United States struggle to become proficient in English, English language proficiency appears to increase with each new generation. For example, the Pew Hispanic Center surveyed 14,000 Latino adults on their ability to speak English. The study found that only 23% of first-generation Latino immigrant adults report speaking English very well. However, 88% of second-generation, U.S.-born Latino adults report speaking English very well, and 94% of subsequent U.S.-born generations of Latino adults report speaking English very well. The study found that the level of education, age of arrival in the United States, and number of years in the United States had an impact on Latino immigrants’ ability to speak English very well and to use it often (Hakimzadeh & Cohn, 2007).

The 2003 National Assessment of Adult Literacy (NAAL) provided in-depth information about the different types of literacy abilities found in native- and foreign-born adults living in the United States. The NAAL measures adults' knowledge and skills in *prose literacy* (text-based), *document literacy* (noncontinuous texts), and *quantitative literacy* (computations). Participants' abilities in each of these three literacy domains are described as *below basic*, *basic*, *intermediate*, or *proficient*. The 2003 NAAL disaggregated some of the performance data by native language and ethnicity (Kutner, Greenberg, Jin, Boyle, Hsu, & Dunleavy, 2007). Relevant findings show that

- Average prose and document literacy decreased as the age at which individuals learned English increased.
- The percentage of the U.S. adult population who spoke only Spanish before starting school increased from 5% in 1992 to 8% in 2003.
- The percentage of the U.S. adult population who spoke only English before starting school decreased from 86 to 81%.
- Approximately 11 million adults in the U.S. (5% of the total population) are estimated to be nonliterate in English.
- Average prose and document literacy for Hispanic adults of Mexican and Central or South American origin declined between 1992 and 2003.
- Approximately 50% of Hispanic adults of Mexican, Cuban, and Central or South American origin had Below Basic prose literacy. This was an increase since 1992.
- 62% of adults who spoke only Spanish before starting school had Below Basic prose and quantitative literacy in 2003, and 49% of these adults had Below Basic document literacy.

- Average prose literacy decreased among all Hispanic adults between 1992 and 2003, except those who were still in high school and those who had a college degree or higher.
- Prose, document, and quantitative literacy levels of Asian/Pacific Islander adults did not change significantly between 1992 and 2003.
- 39% of adults who learned English at the age of 16 years or older and who performed at Below Basic prose literacy and 63% who performed at Basic prose literacy had attended or were currently enrolled in adult ESL classes.
- 82% of adults who learned English at 16 years of age or older who had never enrolled in an adult ESL class had Below Basic prose literacy, compared with 63% of adults who had attended such classes and 69% of adults who were currently enrolled.

Employment and Income

Foreign-born adults are playing a significant role in the U.S. workforce. In 2006, 23.6 million foreign-born were in the workforce (15.6% of the total workforce population) (Terrazas, Batalova, & Fan, 2007). The number of foreign born in the workforce grew 76% from 1990 to 2002, compared to a growth rate of 11% for native-born workers (Grieco, 2004). Foreign-born workers hold a wide range of jobs, but 54% held low-income jobs compared to 38% of U.S.-born workers. For example, in 1999, 44.9% of male, foreign-born full-time workers earned less than \$25,000 compared with 24.2% of U.S.-born male workers. More than half (55.5%) of the full-time, female, foreign-born workers earned less than \$25,000 compared with 44.1% of the full-time, female, U.S.-born workers (U.S. Census Bureau, 2001). Immigrants made up 21% of all

low-wage workers in the United States in 2005 and 45% of all workers without a high school education (Capps, Fortuny, & Fix, 2007).

Length of time in the United States can affect the income levels of the foreign born. Immigrants who have lived in the United States more than 10 years earn about 10% less per household than U.S. born (\$45,400 versus \$50,200 per household in 1997; Fix & Passel, 2001). Foreign born with 10 or fewer years in the United States tend to have lower incomes than those who have lived in the United States longer. Among immigrant groups, undocumented immigrants show the lowest household income level (\$32,200). Refugees earn more than undocumented immigrants (\$34,000), and legal immigrants earn the most (\$44,000) (Fix & Passel, 2001). One study, conducted by the Washington State Board of Community and Technical Colleges, found that a student who started in ESL classes, obtained a year of college credit, and received a credential earned about \$7,000 more than an ESL student who did not (Washington State Board for Community and Technical Colleges, 2005).

Studies suggest that English language proficiency affects employment and income levels of the foreign born. The 2000-2005 survey of the U.S. refugee population conducted by the Office of Refugee Resettlement (ORR) found that refugees who indicated that they did not speak English were less likely to be employed (45%) than those who indicated they spoke English (63%). The survey also found that the average hourly wage of employed refugees who spoke English well or fluently at the time of the survey was \$9.07, compared to \$8.89 for refugees who did not speak English well, and \$7.95 for refugees who did not speak English at all (U. S. Department of Health and Human Services, Office of Refugee Resettlement, 2005). A study by the Urban Institute

of immigrants in New York City (NYC) and Los Angeles (LA) found similar results. Many of the adult immigrants studied did not speak English “well” or “at all” (51% in LA and 38% in NYC). This group was poorer than immigrants who spoke English “well” or “very well.” In LA, 33% of this group lived below the poverty rate compared with 13% who spoke English well. In NYC, 34% lived below the poverty rate compared with 14% who spoke English well (Capps et al., 2002).

Some studies indicate that immigrants have a positive effect on the overall economy of the United States. A study conducted by the National Academy of Sciences found that, on average, immigrants contribute \$80,000 more in taxes than they use in services over a lifetime. Immigrants with more than a high school education contribute, on average, \$198,000 to the nation’s economy over their lifetime (Panel on the Demographic and Economic Impacts of Immigration, & National Research Council, 1997, p. 17).

II. Foreign Born Participation and Outcomes in Adult Education Programs

This section describes factors that influence participation of English language learners in adult education programs and educational outcomes of participation. The federal government provided \$564,079,550 in grants to states for PY 2004–05 for programs funded by the Adult Education and Family Literacy Act (AEFLA). Nationally, this amount represented approximately 26% of the total amount spent in states and local communities to support adult education and literacy (U.S. Department of Education, Office of Vocational and Adult Education, 2007a). From the federal monies that states receive, each state awards 82.5% to adult basic education providers and keeps 17.5% for program improvement activities and administrative expenses (U.S. Department of Education, Office of Vocational and Adult Education, 2005).

Although the majority of federally funded adult basic education programs are administered by local school districts, community-based organizations, and community colleges, the sites where these services are provided vary considerably. In FY 2003, these sites included public schools, adult learning centers, community centers, adult correctional facilities, faith-based facilities, learners' workplaces, community colleges, libraries, and learners' homes (U.S. Department of Education, Office of Vocational and Adult Education, 2005).

In program year 2004-2005, 1,142,749 adults of all ages, nationalities, native languages, and English proficiency levels were enrolled in federally funded, state-administered ESL programs in the United States. These learners made up 44% of adults enrolled in federally funded adult education classes. Of those English language learners,

49% (approximately 3 % of the total foreign-born population) were enrolled in beginning literacy or beginning ESL classes (American Community Survey, 2006). Of enrolled students, 3% were 16-18 years of age, 19% were 19-24, 57% were 25-44, 16% were 45-59, and 5% were 60 years old and older. The five states with the highest number of English language learners enrolled in a federally funded adult education program in that year were California (429,024), Florida (114,310), New York (86,111), Illinois (72,311) and Texas (64,726) (Pane, n.d.).

Factors Related to Participation in Programs

Many learner and program factors affect participation in adult education programs. *Learner factors* that may affect participation include work schedules, family responsibilities, opportunities to learn and use English outside of an instructional setting, marital and family status, and personal motivation. *Program factors* include availability of classes, class schedules and locations, instructional setting, type of entry (open or managed enrollment), length of the course and frequency of classes, and training and expertise of the teachers (National Center for ESL Literacy Education, 2003; Teachers of English to Speakers of Other Languages, 2003).

According to the National Household Education Survey of 2005, 1% of the 211,607 adults surveyed reported taking an ESL class within the previous 12 months (O'Donnell, 2006). The majority of these classes took place in elementary, junior high, high school, or adult learning centers (46%) and at postsecondary schools (37%). The average number of classroom instructional hours learners received in ESL classes was 72. The majority of the ESL participants reported having taken ESL classes either to improve

the way that they felt about themselves (95%) or to make it easier to do things on a day-to-day basis (93%).

In a related study, combined data from the National Household Education Surveys of 2001 and 2005 found that 54% of adults surveyed between the ages of 16 and 64 reported participation in at least one formal learning activity during the 12 months prior to the survey. Adults with no high school credential (4.4%) were more likely to be enrolled in ESL classes than those with a General Educational Development (GED) certification (0.4%), a high school diploma (0.9%), some college (1.0%), or a bachelor's degree or higher (0.6%) (Kienzl, 2008).

The National Association of Latino Elected and Appointed Officials conducted a study to examine the wait times associated with popular adult ESL programs across the country (Tucker, 2006). Among 176 adult ESL providers surveyed, 57% had a wait list from a few weeks to more than three years. In some parts of the country, such as in New York City, waiting lists have been abolished because the wait has become so long. Rather than putting students on waiting lists, some programs place students in classes that are too easy or too difficult for them that do not meet their educational and linguistic goals, in the hopes that a space in an appropriate class will eventually open up.

Length of Time to Acquire a Second Language

There is limited research on how long it takes adults to acquire a second language. Extrapolating from studies of children's language acquisition, it seems likely that it can take several years. For example, studies suggest that it takes school-aged children two to three years to develop social language (conversational skills) and five to seven years to acquire academic proficiency in a second language to reach parity with native English

speakers (Cummins, 1991; Thomas & Collier, 1997). Moreover, school-aged children usually attend school five days a week for approximately six hours a day, which is considerably more hours of instruction than adults in adult education programs receive. Therefore, when considering factors that affect gains in English language proficiency and other educational outcomes, it is important to keep in mind the time that may be required for adults to reach the goals that are set.

In an analysis of the cost and number of instructional hours needed for approximately 5.8 million adult lawful permanent residents currently in the United States to reach a level of proficiency necessary for civic integration or to begin post-secondary education, the Migration Policy Institute argued that about 600 million hours of English language instruction per year for six years would be necessary (McHugh, Gelatt, & Fix, 2007). Projected costs of meeting the instructional needs of just a portion of this population would reach an extra \$200 million a year for six years, bringing the U.S. in line with the amount of language instruction provided to immigrants in, for example, Australia and Germany.

A descriptive study conducted by the Center for Applied Linguistics examined the NRS educational level gain of 6,599 adult English language learners, as measured by the oral proficiency assessment *BEST Plus* (Young, 2007). The study found that the greater the number of instructional hours and intensity of instruction received, the greater the rate of NRS gain across all six NRS educational functioning levels. The effect of instructional hours was particularly strong for students who pretested at the Beginning ESL Literacy level (21% difference in gain between the fewest number and the greatest number of instructional hours) and the Advanced ESL level (16% difference). There was also a

general trend toward greater NRS level gain for students with high levels of instructional intensity than for those with low intensity. Intensity of instruction had the greatest effect on students in the Beginning ESL Literacy, Low Intermediate, and Advanced ESL levels.

Educational Outcomes

Between Program Years 2000-2001 and 2004-2005, 2,006,175 adult English language learners enrolled in federally funded adult basic education made a level gain. Thirty-seven percent of students enrolled in ESL classes during 2004-2005 advanced to the next proficiency level (U.S. Department of Education, 2007a). This is an increase from 32% in PY 2000-2001. Table 1 presents information on the educational gains of these students, reported through the National Reporting System. At the time of this report, the U.S. Department of Education did not have societal and economic outcomes for ESL students disaggregated from the general adult education data.

Figure 1

State-Administered Adult Education Program. Educational Gains by Educational Functional Levels. English Literacy. 2004-2005 Program Year.

<i>Level</i>	<i>Number Enrolled</i>	<i>Percentage Completing Level</i>
ESL Beginning Literacy	237,650	36%
ESL Beginning	323,840	32%
ESL Intermediate Low	244,570	39%
ESL Intermediate High	158,560	39%
ESL Low Advanced	139,470	27%
ESL High Advanced	38,659	25%
TOTAL	1,142,749	37%

III. Trends in Program Design and Instructional Practice

The demand for ESL classes, for qualified personnel to work with adult English language learners, and for appropriate resources to support these efforts has greatly increased. Changes in federal policy call for increased accountability requirements for all programs receiving federal dollars. These programs need to prepare individuals for the complexities of modern life, particularly in the workplace, so that learners will be equipped with the skills they need to succeed. Critical issues that have emerged from this context are in the areas of

- program design and instructional practice
- professional development and teacher quality
- assessment and accountability

These issues cut across all adult ESL programs. In the following section, each of these areas is discussed.

Program Design and Instructional Practice: State of the Field

Adult ESL programs serve a diverse population through a variety of funding streams depending on learners' status (e.g., immigrants, refugees, or asylees), goals (e.g., basic or functional literacy, family literacy, workplace education, and citizenship preparation), and circumstances (e.g., farm workers, displaced workers, and incarcerated youth and adults). The diversity of learner populations served, program settings, systems of delivery, and instructional philosophies embraced result in a wide range of program designs and instructional practices. In general, the hallmark of adult ESL programs is flexibility. To be effective, programs need to offer classes that vary in terms of

scheduling, location, duration, and content in order to maximize learning opportunities while accommodating the realities and constraints of adult learners' lives.

Given the increasing demand for adult ESL instruction, large classes or classes of learners with widely varying English language proficiency levels (multilevel classes) are not uncommon (Mathews-Aydinli & Van Horne, 2006; National Center for ESL Literacy Education, 1998; Teachers of English to Speakers of Other Languages, 2003). Instruction can also be provided in one-to-one tutoring or small-group or large-group sessions (Bell, 2004; Corley, 2005; Mathews-Aydinli & Van Horne, 2006). Some states and local ESL programs provide distance education opportunities for learners who cannot come to class consistently. The amount of instructional support that these programs offer also varies. A combination of self-study and teacher support has shown promise in helping learners learn the language and also getting them into classroom-based programs (Center for Impact Research, 2002). Support may take the form of in-person appointments or periodic group meetings with an instructor or instructional aide (Ramirez & Savage, 2003).

ESL programs seldom provide only language and literacy instruction. They also often provide English language learners with access to information, practices, and concepts that they need to survive and succeed in a variety of life roles such as parents, employees, consumers, and life-long learners in their new land. (See descriptions of adult education for English language learners in Burt & Mathews-Aydinli, 2007; Hughes & Karp, 2006; Mathews-Aydinli, 2006; National Center for ESL Literacy Education, 1998; Taylor, 1997; Teachers of English to Speakers of Other Languages, 2003; Weinstein-Shr

& Quintero, 1995; Wrigley & Guth, 1992.) The most common contexts in which instruction is offered for adult English language learners include the following:

- *Lifeskills or general ESL classes* focus on development of general English language skills. These classes usually address language skills development in the context of topics or functions of daily life, such as going to the doctor, getting a job, shopping, or managing money.
- *Family literacy programs* address the family as a whole, providing English language and literacy instruction for adults and children. Often these programs include parenting elements and information that parents can use to further their children's literacy and general educational development. Some programs, such as Even Start, are collaborations between K–12 and adult education programs.
- *English literacy/civics (EL/civics) programs* integrate English language instruction with opportunities to learn about civil rights, civic participation and responsibility, and citizenship. While instruction of this type has been offered in some programs for some time, there has been new interest in developing EL/civics classes since a specific EL/civics initiative was enacted by the U.S. Department of Education in fiscal year 2000.
- *Vocational ESL (VESL) programs* prepare learners for jobs. These programs may concentrate on general pre-employment skills such as finding a job or preparing for an interview, or they may target preparation for jobs in specific fields such as horticulture or hospitality.

- *Workplace ESL classes* are offered in work settings and focus on development of language that is directly relevant to that setting.

Across these settings, there are two recent areas of emphasis in program improvement. One is the development of English language acquisition content and program standards to ensure the quality and consistency of the content and program provided to learners. The second is the emphasis on transitioning learners to programs in which they can attain their goals.

Content standards are broadly defined as what learners should now and be able to do in a certain subject or practical domain (American Institutes for Research and U.S. Department of Education, Office of Vocational and Adult Education, 2005; Kendall, 2001). They are the foundation for designing curricula, instruction, and assessment, but they do not stipulate the types of lesson plans, activities, or teaching methodologies that should be used. They provide teachers and program administrators a shared vision for adult ESL education and provide students guideposts to follow as they make progress in learning English (Schaezel & Young, 2007; Young & Smith, 2006). There are no national content standards; states and two adult education national organizations – CASAS and University of Tennessee at Knoxville (UTK) – have developed content standards. Though there are similarities across states' content standards, each state's content standards reflect the unique approaches to teaching and learning of adult English language learners that has developed in the state. The Office of Vocational and Adult Education, U.S. Department of Education, has established a Content Standards Warehouse (www.adultedcontentstandards.ed.gov) to facilitate states' development and use of content standards. The Warehouse features state standards from twelve states and two

national organizations; a guide for establishing content standards; and field resources, including examples of standards from other countries and information about how to implement content standards.

In addition to content standards to guide instruction and learning, *program standards* have also been developed by the Teachers of English to Speakers of Other Languages (TESOL) organization to define the components of a quality ESL education program (TESOL, 2003). Program indicators in eight areas (program structure, administration, and planning; curriculum and instructional materials; instruction; learner recruitment, intake, and orientation; learner retention and transition; assessment and learner gains; employment conditions and staffing; professional development and staff evaluation; and support services) can be used to review an existing program or as a guide in establishing a new program (Peyton, 2005).

The second area of recent emphasis is on *transitioning English language learners* through the upper levels of English as a second language courses and into and through programs that will help them attain their goals, such as those leading toward a two year associate's degree in a vocational program. A study by the Council for Advancement of Adult Literacy (CAAL) of ESL service at community colleges examined five community colleges that exceed national norms and the norms of their states for ESL learner gains and transitions. The study showed that these colleges had developed innovative strategies for improving ESL service to help learners progress and attain their goals. Three highly effective strategies identified for increasing learner gains were to deliver high-intensity programs with managed enrollment, to expand learning outside the classroom, and to adapt curricula to learner needs. These colleges also had effective strategies to increase

ESL student transition rates: 1) integrate English language learning with college preparation, 2) co-enroll students in English and content community college classes, 3) design vocational ESL (VESL) programs, 4) offer the GED in Spanish, and 5) offer strong learner guidance and counseling systems. (Chisman & Crandall, 2007). Mathews-Aydinli (2006) also highlights the importance of addressing nonacademic factors, such as counseling services, providing orientation to students, addressing academic factors (ie.g., using content-based ESL instruction), and strengthening programs through cooperation (e.g., forming a strong relationship between the ESL program and associated postsecondary education institutions).

If English language learners have moved through beginning levels of ESL classes and can attend a workforce program, they are more likely to complete the program and attain their goals for English and work. A 2005 evaluation report on pilot ESL Integrated Basic Skills Training (I-BEST) (vocational education) programs in the state of Washington found that ESL students in these programs were five times more likely to earn college credits and were 15 times more likely to complete workforce training than were traditional ESL students during the same amount of time (Washington State Board for Community and Technical Colleges, 2005).

Technology is used in ESL programs in a range of different contexts: in the classroom, in distance education, and in extended self-study options. ESL teachers use technology both as an instructional tool (e.g., integrating multimedia packages and PowerPoint presentations into instruction) and as instructional content itself (e.g., learning word processing programs, using the Web to access information, and using English through email communications). Distance learning has become an area of interest

for many adult educators (National Center for the Study of Adult Learning and Literacy, 2003). The Office of Vocational and Adult Education is exploring the feasibility of developing a national portal for adult learning, *Strengthening Programs through Technology* (Office of Vocational and Adult Education Review, 2005). While computers and the Internet play a growing role in adult ESL learners' and teachers' lives at work and at home, there are still segments of both populations that could benefit from easier access to this type of technology and the information it conveys (Children's Partnership, 2000; Terrill, 2000).

Educators report a wide range of expertise and resources in adult ESL programs (Florez & Burt, 2001; Hayes, 2000; National Center for ESL Literacy Education, 1998; Schaetzel, Peyton, & Burt, 2007; Van Duzer, 2002; Wrigley, Chisman, & Ewen, 1993; Wrigley & Guth, 1992; Young, 2005). The reasons for this include the following:

- immigration and settlement trends that bring English language learners to areas of the country in which program and instructional staff are unaccustomed and untrained to work with English language learners
- uneven and insufficient funding
- the diversity of learners and their needs, including an increasing number of adolescent learners
- the overwhelming need for English language instruction
- an insufficient number of trained adult ESL teachers who can teach a diverse learner population
- inadequate professional development opportunities for teachers

Funding for major research efforts in adult education, including adult ESL, has not been extensive to date (Sticht, 2002), and research dissemination efforts of the National Center for the Study of Adult Learning and Literacy (NCSALL) ended on March 31, 2007, with the end of the Center's federal funding. However, there is a substantial body of information about promising practices based on descriptive information (e.g., case studies, ethnographic research, and teacher research) from the field (e.g., articles in refereed professional journals such as *TESOL Quarterly*, *Applied Linguistics*, *Language Learning*, and *Language Testing*) and the research base on adult second language acquisition (SLA) and reading development. The following section describes the research that informs adult ESL instruction.

Applicable Research on Adult ESL Instruction

Recent efforts to fund major research studies that either focus on adult ESL instruction or include adult ESL populations and programs will expand the somewhat limited research base that exists now. These studies include such efforts as the Adult Reading Components Study (ARCS), conducted by the National Center for the Study of Adult Learning and Literacy (NCSALL) (Strucker & Davidson, 2003). This study focused on the various types of readers enrolled in US adult basic education programs, including native speakers of English and those for whom English was an additional language. Of the ESL learners tested in the ARCS study, 78% were native speakers of Spanish. The study found that 80% of the native Spanish speakers had adequate or better native language literacy skills, their reading ability in Spanish was directly related to years of Spanish school completion; and all native Spanish speakers in the study were weak in perceiving and in producing English consonant sounds. These findings may help

practitioners and policymakers better understand the characteristics and challenges of adult English language learners as readers and how to design instruction to strategically meet their learning needs.

The Adult ESL Lab School managed by Portland State University has conducted research on dyadic interaction (interaction between pairs of students) and microgenetic (individual case) studies of language development. Even though the core funding for the Adult ESL Lab School has ended, the dyadic interaction studies are continuing with a grant from the National Science Foundation. This focuses on ESL learners with low first language education and literacy skills. The school is also recording and studying new ESL classes targeting academic genres of language needed for postsecondary education (S. Reder, personal communication, March 21, 2008).

The Adult Literacy Research Network – a partnership of the National Institutes of Child and Human Development (NICHD), the National Institutes for Literacy (NIFL), and the Office of Vocational and Adult Education (OVAE)) – has funded six projects for 80 research sites in six states. Two of these projects examine the literacy skills of English language learners as well as native English speakers: The Illinois Health Literacy Research Project and Improving Literacy Instruction for Adults. Preliminary findings in the Illinois Health Literacy Research Project show that though ABE/ASE and ESL groups are vulnerable in their health literacy knowledge, ESL learners are at greater risk, which appears to be related to their level of literacy (McCardle, 2006)

The National Institute for Literacy has commissioned background papers on adults with limited literacy; career pathways for adult English language learners, focusing on healthcare; and uses of technology in adult English language and literacy education.

When the studies described here are completed and released, the field will know more not only about promising practices, but also about how to implement them in the ESL classroom.

Finally, programs of study that focus on second language acquisition and reading development inform specific aspects of adult English language learning.

Research on Second Language Acquisition

Research on second language acquisition (SLA)—how people learn to speak a language other than their native language—guides the practice of teaching English to speakers of other languages. Recent research has focused on learner motivation, opportunities for interaction, task-based learning, focus on form in instruction, and the development of English literacy.

Motivation. Studies by Gardner and his colleagues support the theory that integrative motivation—the learner wants to learn a language to become part of the target community—promotes SLA (Gardner, 1985; Masgoret & Gardner, 2003). Moreover, these studies have found that integrative motivation promotes SLA regardless of the age of the learner or whether the language is being learned as a second or a foreign language. Motivation research also suggests that socially grounded factors affect students' attitudes, effort, classroom behavior, and achievement. Therefore, teachers should encourage group cohesion in the classroom in order to foster a conducive learning environment and should cultivate opportunities outside the classroom that can foster language use outside regular class hours (Clement, Dörnyei, & Noels, 1994).

Opportunities for interaction. Another area of SLA research focuses on the role of interaction in second language learning. Interaction provides learners with opportunities

to receive comprehensible input and feedback (Gass, 1997; Long, 1996; Pica, 1994) as well as to make changes in their own linguistic output (Swain, 1995), because it allows learners to “notice the gap” (Schmidt & Frota, 1986, p.311) between their command of the language they are learning and correct, or targetlike, use of the language. While much of the research on interaction in SLA investigates theoretical issues, other research is focused on the language classroom. Included in this latter category are, among other topics, research on task-based language learning and teaching, and focus on form.

Task-based and problem-based learning. A general definition of a task is “an activity which requires learners to use language, with emphasis on meaning, to attain an objective” (Bygate, Skehan, & Swain, 2001, p. 11). Research suggests that interactions are most successful when tasks contain elements that are new or unfamiliar to the participants; require each learner to exchange information with his or her partner or group members; have a specific, or closed, outcome; involve details; center on a problem, especially an ethical one; and involve the use of naturally occurring conversation and narrative discourse (Ellis, 2000). Similar to task-based learning, problem-based learning is more specific because the core focus is solving real, open-ended problems to which there are no fixed solutions (Ertmer, Lehman, Park, Cramer, & Grove, 2003). Because problem-based learning shifts the emphasis of the learning activity from the teacher to the students, it can help students become more autonomous learners and transfer the skills they learn in the classroom to their lives outside the classroom (James, 2006).

Focus on form. Research has examined the role of focus on the grammatical forms of language in instruction. In a focus-on-form approach to language teaching, rather than teaching grammar in isolation, learners’ attention is drawn to grammatical

form in the context of meaning, and teachers' attention to form is triggered by learners' problems with comprehension or production (Long, 2000). A meta-analysis of research studies has found that instruction that uses a focus-on-form approach—incorporating form with meaning—is as effective as more traditional grammar-teaching approaches (Norris & Ortega, 2001). The use of focus on form in communicative lessons can result in high levels of learner uptake—that is, learners may be more likely to incorporate new learning into their language use (Ellis, Basturkmen, & Loewen, 2001; Pica, 2008; Schmidt, 2004).

Research on Learning to Read

The National Center for ESL Literacy Education (NCLE) reviewed what is known about how adult English language learners learn to read in English and published *Research on Reading Development of Adult English Language Learners: An Annotated Bibliography* (Adams & Burt, 2002). This bibliography was developed to present a comprehensive view of the research that has been conducted on reading development among adult English language learners in the United States in the last 20 years (with some additional research conducted in Australia, Canada, New Zealand, and the United Kingdom). In addition to experimental research studies, descriptive studies, case studies, and practitioner research were included, as were theoretical studies describing models of reading processes. Research on adult English language learners in adult education programs or in intensive English programs (IEP)s were included.

From the research in this bibliography, a synthesis paper, *Reading and Adult English Language Learners: A Review of the Research* was developed (Burt, Peyton, & Adams, 2003). It summarizes research on adult English language learners reading

English, offers adult ESL teachers and administrators suggestions for practice, and points to areas where further research is needed.

The paper reviews the kinds of native language literacy that English language learners bring to the ESL classroom and the ways that native language literacy affects learning to read in English. Huntley (1992) describes four types of literacy in the first language (L1) that affect English literacy development and should be considered in adult ESL literacy instruction: preliterate, nonliterate, semiliterate, and non-Roman-alphabet literate. Birch (2002) adds to these types nonalphabet literate, and Birch and others (Hilferty, 1996; Strucker, 2002) add Roman-alphabet literate.

The paper also discusses four reading skills that researchers have identified as necessary for English language learners to develop in order to read fluently (see, e.g., Coady, Mgoto, Hubbard, Graney, & Mokhtari, 1993; Davidson & Strucker, n.d.; Jones, 1996; Koda, 1999; McLeod & McLaughlin, 1986; Strucker, 1997, 2002; Tan, Moore, Dixon, & Nicholson, 1994):

- *Phonological processing*: Recognizing and reproducing letters and other graphic symbols related to the language.
- *Vocabulary development*: Creating an ever-growing vocabulary bank.
- *Syntactic processing*: Understanding and applying grammar and usage conventions and identifying and using structural and organizational features common to English.
- *Schema activation*: Initiating appropriate strategies for reading comprehension (e.g., identifying and setting a purpose for reading, gaining

meaning from context, using pictures and other graphics, predicting, and skimming and scanning).

The National Literacy Panel on Language-Minority Children and Youth released its report in 2006 (August & Shanahan, 2006) and, even though this report focused on children and youth, two important research findings emerged that are relevant to all English language learners. First, teaching specific reading and writing elements can be beneficial to second language learners; for example, explicit vocabulary instruction led to improved knowledge of the words studied. Second, learners need to have sufficient knowledge of oral English while learning English literacy. Instruction in the components of reading alone is not enough: Instruction must teach these components while fostering extensive oral English language development.

The Pathways Project, a cognitive strategies intervention developed by the University of California-Irvine Writing Project, teaches secondary school students thinking tools, such as activating prior knowledge or establish a purpose, and teaches teachers instructional and curricular approaches that support the development of thinking tools (Olson & Land, 2007). The project involved fifty-five teachers in all the secondary schools in a California district where 93% of students speak English as a second language. After being taught these thinking tools, Pathway students had greater achievement in writing for seven consecutive years and outperformed non-Pathway students in grade point averages (GPAs) standardized tests, reading assessment, high school exit exams, and community college placement tests.

Promising Practices

Some SLA research informs instructional practices that are employed in the adult ESL field. Giving students the opportunity to interact with the teacher and with each other, planning instruction around tasks that promote these activities, and teaching language forms in the context of meaningful learning activities are applications of second language research to the classroom environment (Butler, 2003; Ellis, 2003; Florez & Burt, 2001; Mathews-Aydinli, 2007; Moss & Ross-Feldman, 2003; National Center for ESL Literacy Education, 1998; Olson & Land, 2007; Smith, Harris, & Reder, 2005; Teachers of English to Speakers of Other Languages, 2000; Van Duzer, 2002; Wrigley, Chisman, & Ewen, 1993; Wrigley & Guth, 1992). The following promising instructional strategies for adult ESL educators have emerged from second language acquisition and reading research:

- Incorporate principles of adult learning, adult second language acquisition, and ways to work with multicultural groups;
- Begin with an assessment of learners' needs and goals (e.g., where and why do they use or want to use English) to establish instructional content that is relevant to and immediately usable by speakers of other languages;
- Employ a number of different approaches to language acquisition and ESL techniques that match the diverse needs, motivations, and goals of the learners and provide opportunities for interaction, problem solving, and task-based learning where learners can use English;
- Acknowledge and draw upon learners' prior experiences and strengths with language learning;

- Include ongoing opportunities for language assessment and evaluation of learner progress in becoming proficient English language users;
- Provide courses of varied intensity and duration with flexible schedules to meet needs of learners who may be new to this country and burdened with settlement demands or multiple jobs; and
- Use technology to expand or individualize learning inside and outside the classroom in accordance with learners' language proficiency, preferences, and needs and to potentially reach learners who cannot attend classes (e.g., individualized activity stations, self-access learning labs, and online courses; Butler, 2003; Burt, 1999; Gaer, 1998; Hacker, 1999; Hawk, 2000; Terrill, 2000).

IV. Practice and Trends in Professional Development and Teacher Quality

State of the Field

The demand for qualified personnel to work with adult English language learners has greatly increased in recent years as a result of ever-increasing demands for classes (Schaetzel, Peyton, & Burt, 2007). While the demand for classes is not new, changing immigration patterns and demographics have had an impact on professional development. As a result, new teachers are entering the field, experienced teachers are being asked to take on greater challenges, and many adult basic education teachers are working with English language learners in classes along with native English speakers. Much of this is occurring in areas where the adult ESL infrastructure is limited or nonexistent. Professional development is crucial for these teachers (Teachers of English to Speakers of Other Languages, 2000).

Applicable Research

Though research on professional development in adult education is scanty at best, the few studies that have been done shed light on the opportunities and constraints in designing and delivering professional development to teachers of adult English language learners. In addition to research studies in adult education and K-12 professional development, *An Environmental Scan of Adult Numeracy Professional Development Initiatives and Practices* developed by the American Institutes for Research (Sherman, Safford-Ramus, Hector-Mason, Condelli, Olinger, & Jani, 2006) provides the first comprehensive look at what constitutes quality professional development for adult

educators. *An Environmental Scan of Adult Numeracy Professional Development Initiatives and Practices* and relevant research point to seven focus areas important in the design and delivery of professional development for teachers of adult learners, including those learning English.

Examine data to see what teachers are needed and what they need. In planning and designing professional development for teachers of adult English language learners, it is important to look at data to see what teachers are needed at which levels and to see what teachers need (Sherman, Kutner, Tibbetts, & Wiedler, 2000; Smith, Hofer, Gillespie, Solomon, & Rowe, 2003). Areas that teacher needs assessments should cover are: 1) areas of strength, 2) areas for improving instruction, 3) individual learning preferences, and 4) preferred approaches to professional development (Sherman, et al., 2000). As a result of their study *How Teachers Change*, Smith et al. (2003) recommend that teachers think about what they need to know and work closely with professional developers to design professional development activities that are most relevant to their needs.

Model professional development to reflect what we know about how adults learn. What we know about the ways that adults learn most effectively needs to be incorporated into the design of professional development activities. Dennison and Kirk (1990) describe the cyclical nature of adult learning in their cycle of “do, review, learn, apply, do, review, learn, apply” model. Through the cyclical nature of adult learning, adults build on what they already know. Teachers can use their professional wisdom and their knowledge of their classrooms and add to what they already know in professional development activities.

Garet, Porter, Desimone, Birman, and Yoon (2001), in their evaluation of the Eisenhower Professional Development Program, a program supporting professional development for math and science teachers, indicate three core factors that teachers reported as being important to their learning and changes in classroom practice. These are characteristics of good instruction for adult learning. First, professional development activities need to focus on content knowledge. Teachers want to increase their content knowledge through their professional development. Second, professional development needs to give participants opportunities for active learning. If activities are designed so that participants can do, review, learn, and apply, then their learning will be active. Third, professional development needs to be coherent with other learning opportunities teachers have.

Provide a professional development program that is coherent. Many researchers argue that in order for professional development to become a natural part of teachers' lives and program goals, it is important to build a shared vision for it across a broad range of practitioners (Belzer, 2005; Joyce & Showers, 2002; Belzer, et al., 2001; Marcinkiewicz, 2001; Senge, 1990). A shared vision for professional development needs to reflect teachers', tutors', program directors', and state education officers' needs and goals. These, in turn, need to be incorporated into professional development offerings.

Encourage collective participation. In designing professional development activities that are coherent, Garet et al. (2001) found that it is effective to have the collective participation of teachers from the same program or subject area. Much K-12 professional development presumes collective participation because it is delivered to a grade level, subject group of teachers, or a school. Collective participation is more

challenging in an adult education setting because there are few times during a term that teachers within a subject area or an entire program meet together (Smith & Gillespie, 2007).

Increase the time and duration of professional development. To improve professional development, it is important to focus on the duration of the professional development activity (Garet et al., 2001). One-day workshops with little or no follow-up do not have lasting impact on teaching practices (Sherman, Safford-Ramus, Hector-Mason, Condelli, Olinger, & Jani, 2006). In Garet et al.'s study, two measures of duration, time span and contact hours, were shown to have substantial influence on what they term the core features of professional development (content, active learning, and coherence). The National Center for Education Statistics (2005) reports that K-12 teachers received 25-33 hours of professional development in the 1999-2000 school year. Few adult educators receive 25-33 hours of professional development in one calendar year. Smith & Gillespie (2007) report that working part-time, as many adult educators do, makes participating in professional development regularly or for extended periods of time challenging.

Provide a system for professional development and administrators who are committed to and involved in professional development. In order to design and deliver professional development that is timely, based on data, and coherent a state needs to have a system to facilitate its delivery (Belzer, et al., 2001; Brancato, 2003; Senge, 1990; Smith, et al., 2003). A system for professional development will provide the context necessary for teacher change. Such a system will include English as a second language

content standards; teacher quality standards and credentialing; a shared vision for the state, programs, and teachers; and planning processes that begin with needs analysis.

In their analysis using the nationally representative Schools and Staffing Survey, Smith and Rowley (2005) found that schools with a stronger commitment strategy (defined as a school organizational design that uses collaborative and participatory management strategies to improve teaching quality and student achievement) may be better able to achieve their reform goals because of increased teacher participation in content-related professional development activities. When administrators support professional development activities and teachers have influence over policy, the impact of professional development is greater and there is less teacher turnover.

Provide access to professional development opportunities. Smith and Gillespie (2007) chronicle many of the challenges related to making professional development accessible to teachers of adult English language learners, for example, the part-time nature of employment and limited funding to attend professional development. One possible way to make professional development opportunities more accessible to practitioners teaching adult English language learners is through the use of technology. This is being explored and if adequate attention is given to instructional design and content, online professional development can help overcome geographic and time barriers and ease teachers' access to relevant, personalized, and meaningful professional development. Emerging applications include development of Web-based courses and training programs that integrate face-to-face meetings with Internet-based, video-based, or teleconferencing components (Mathews-Aydinli & Taylor, 2005). For example, the California Adult Literacy Professional Development Project (CALPRO) and the Virginia

Department of Education offer an online orientation courses for new ESL teachers. National online projects for adult ESL teacher professional development include *ESL/CivicsLink*, which is managed by Kentucky Education Television and offers short online courses on teaching adult ESL and civics (see www.pbs.org/literacy/esl for more information), and the National Reporting System training courses (see <http://nrsweb.org> for more information). Hamline University in Minnesota offers an online graduate certificate for teachers of adult English language learners.

Promising Practices

Educators have described recent professional development efforts that show promise (Crandall, Ingersoll, & Lopez, 2008; Farrell, 2004; Florez & Burt, 2001; Schaetzel, Peyton, & Burt, 2007; Sherman, et. al., 2006; Smith & Gillespie, 2007; Smith & Hofer, 2002). Key factors in these efforts include

- building teachers' knowledge in the areas of adult learning principles (in ESL contexts), second language acquisition processes, effective second language teaching approaches, and techniques for working with multicultural groups;
- ensuring that professional development is designed using data to determine which topics and delivery methods are most relevant to practitioners, and implemented and evaluated so that professional development and its followup can have an impact on the instruction learners receive;
- exploring ongoing professional development formats with opportunities for the application of new ideas, collaboration, and feedback (as well as integrating one-time workshops, workshop series, and conferences into these formats);

- using technology-based approaches to offer professional development options that optimize financial resources, reach scattered teachers and programs, and promote collaboration and community;
- promoting reflective practice and professional communities through efforts such as mentoring, practitioner research groups, reading circles, and peer teaching;
- encouraging teachers to bring theory, SLA and reading research, and practice together through practitioner research or joint projects between researchers and teachers;
- developing new models for credentialing and certification based on the skills and knowledge that adult ESL teachers need to be able to demonstrate;
- focusing on delivering quality professional development that meets guidelines for quality such as those being developed by the Association of Adult Literacy Professional Developers (in press); and
- focusing on professional development within other national efforts such as *Program Standards for Adult Education ESL Programs* (2003) and *Standards for Teachers of Adult English Language Learners* (in press) both created by Teachers of English to Speakers of Other Languages.

V. Trends in Assessment and Accountability

State of the Field

Learner assessment is a priority in adult education. Many adult education programs use a variety of assessment tools to place learners in classes, inform instruction, evaluate learner progress, and report outcomes of instruction. These assessment tools include standardized tests, materials-based and teacher-made tests, portfolios, projects, and demonstrations. Needs assessment and goal-setting activities also play an important role in determining in what areas (e.g., language skills, content areas, functional life skills, literacy) the learner needs the most work.

The National Reporting System for Adult Education (NRS) is the accountability system for federally funded adult basic education, adult secondary education, and English as a second language (ESL) education in the United States. Upon enrollment in an adult ESL program, students place into one of six ESL educational functioning levels based on their pretest scores on an approved standardized assessment. Their progress through these levels is reported each year by state departments of education to the U.S. Department of Education, Office of Vocational and Adult Education (OVAE). Each state negotiates a target percentage of students at each educational functioning level that will advance at least one level (educational level gain) each year. A state can set different standards for different service providers or for different levels of proficiency. For example, the percentage of learners expected to move from the lowest proficiency level could be lower than the percentage expected to move from higher proficiency levels. This recognizes that a learner who enters a program with no literacy skills may require a great deal of instruction before showing level gain.

Following the NRS state assessment policy guidelines (www.nrsweb.org), states identify standardized assessments and procedures that programs can use to determine learners' functioning levels, establish timeframes for assessments to be given (either at specific times during the year or after a given number of hours of instruction), and train program staff to administer the assessments.

Educational level gain in language and literacy is measured by pretesting students with an approved standardized assessment, then posttesting them with an equivalent form of the same assessment after a predetermined number of instructional hours or at the end of an instructional cycle. The minimum number of instructional hours recommended between pretesting and posttesting for NRS-approved assessments ranges from 40 to 120 hours. For reporting purposes, adult ESL programs must pretest and posttest all students who attend 12 or more hours of class annually.

OVAE has designated six NRS ESL educational functioning level descriptors (see Appendix A) for adult ESL students that describe what students know and can do in (a) speaking and listening, (b) reading and writing, and (c) functional and workplace skills at each level. Educational gain in student language and literacy is illustrated as follows:

[p. 7] ... local programs assess students on intake to determine their educational functioning level. There are ... six levels of ESL. Each level describes a set of skills and competencies that students entering at that level can do in the areas of reading, writing, numeracy, speaking, listening, and functional and workplace areas. Using these descriptors as guidelines, programs determine the appropriate initial level at which to place students using a standardized assessment procedure (i.e., a test or a

standardized performance-based assessment). The program decides the skill areas in which to assess the student based on the student's instructional needs and goals... [p. 15] . . . After a set time period or number of instructional hours set by the State, students are again assessed to determine their skill levels. If their skills have improved sufficiently to be placed one or more levels higher, an "advance" is recorded for that student (U.S. Department of Education, Office of Vocational and Adult Education, 2007b, p. 7; p. 15).

These educational functioning level descriptors (see Appendix A) are intended to provide examples that guide assessment and instruction, but are not complete descriptions of all of the skills a student may possess at any given level. These descriptors were recently revised to reflect the larger number of adult ESL learners at the lower levels and the need to show more progress among the lower levels (see Figure X). The descriptors focus on what students can actually do with the language in daily life outside of the classroom.

Figure 2.

Original and Revised NRS Levels

<i>Original (PY 1999-2000 to 2005-2006)</i>	<i>Revised (PY 2006-2007 to present)</i>
Beginning ESL Literacy	Beginning ESL Literacy
Beginning ESL	Beginning ESL Low
	Beginning ESL High
Intermediate Low	Intermediate Low
Intermediate High	Intermediate High
Advanced Low	Advanced
Advanced High	

In language testing terms, the focus of the NRS is language proficiency. The American Council on the Teaching of Foreign Languages (ACTFL) defines language proficiency as "language performance in terms of the ability to use the language effectively and appropriately in real-life situations" (Buck, Byrnes, & Thompson, 1989, p. 11). Proficiency distinguishes itself from achievement in that, when measuring language skills, proficiency is not necessarily confined to what is taught in the classroom. For adult language learners, that means using the language in everyday life (Kenyon & Van Duzer, 2003).

In order to measure educational gain, states use standardized assessments that are approved by OVAE and meet psychometric criteria for test development, reliability, and validity (see Kenyon & Van Duzer, 2003 for discussion). Assessments that are currently approved for use in one or more states for NRS reporting include BEST Literacy, BEST

Plus, CASAS, CELSA, Compass ESL, REEP Writing Assessment, and TABE ESL. In January 2008, OVAE issued new regulations in the federal register detailing the process through which adult ESL assessments must be submitted and approved prior to being used for accountability requirements in the NRS. Test publishers must begin submitting their applications for approval in April 2008, with an annual application to be made to the Secretary of OVAE by October 1 of every subsequent year. These regulations are intended to “formalize the process for the review and approval of tests for use in the NRS... [which will] facilitate test publishers’ submissions of tests to the Department for review and will help strengthen the integrity of the NRS as a critical tool for measuring State performance on accountability measures” (U.S. Department of Education, Office of Vocational and Adult Education, 2008, p.1).

Although educational gain is measured by the percentage of learners that move from level to level during the funding year, there is no research to support how long it takes to advance one NRS level. Because it takes several years to learn a language well (Thomas & Collier, 1997), the time it takes to show level gain on a proficiency scale is dependent on both program and learner factors. Due to these factors, it has not been possible to show under what exact conditions (with which combinations of learner and program factors) NRS level gains are achievable.

The adult ESL field faces a number of challenges in the selection, use, and development of assessments for accountability reporting. Adult ESL staffing concerns, such as inexperienced instructors and volunteers, high teacher turnover rates, part-time and temporary employment, and limited professional development may affect practitioners’ knowledge of assessment, its purposes, and its alignment with instruction.

Program administrators may not know how to use assessment and NRS data to make decisions about instruction, program needs, and professional development. The students themselves may attend class sporadically, making it difficult for teachers to align instruction and assessment and to show educational gain for accountability. The growing emphasis on assessments aligned with content standards adds another layer to instructional practice and test selection.

Adult education programs are often tailored to take advantage of the few hours that adult learners are available to study (typically 4-8 hours per week). Instruction may focus on a limited number of learner goals (e.g., finding a better job or helping children with their homework). The results of standardized assessments will have meaning to learners and teachers only if the test content is related to the goals and content of the instruction (Van Duzer & Berdán, 1999). If the items in a standardized test reflect the actual curriculum, then the test may accurately assess achievement of the learners. However, if the items do not reflect what is covered in the classroom, the test may not adequately assess what learners know and can do.

There is also a concern that standardized tests may not be able to capture the incremental changes in learning that occur over short periods of instructional time. Test administration manuals usually recommend the minimum number of hours of instruction that should occur between pre- and posttesting, yet the learning that takes place within that time frame is dependent on the program and learner factors discussed previously. In the effort to make sure that learners are tested and counted before they leave, program staff may be posttesting before adequate instruction has been given. In such cases,

learners may not show enough progress to advance a level unless they pretested near the high end of the score ranges for a particular NRS level.

Key Concepts in Assessment

Current research on appropriate, valid, and reliable assessments is informing practice in the adult ESL field. The National Research Council (2002) outlines the following:

Appropriate Assessments

Appropriate assessments determine the relationship between learner outcomes and the various factors that influence those outcomes. These include curriculum, classroom instruction, and factors outside the educational setting (learner personality and learning styles, prior education and life experiences, and opportunities to use English outside the instructional program). One type of assessment that is appropriate is performance assessment, which requires test takers to “demonstrate their skills and knowledge in a manner that closely resembles a real-life situation or setting,” such as reading a pay stub or job schedule and answering questions about it (National Research Council, 2002, p. 7). Although performance assessments are not easy to develop, administer, score, and validate, they are valuable tools, and some performance assessments are in use in adult ESL programs.

Valid Assessments

Validity is the degree to which the information gained from an assessment matches the inferences or decisions that programs make about learners, or actions that

they take as a result of that information (American Educational Research Association, American Psychological Association, & National Council in Measurement in Education, 1999; Messick, 1989). Whether or not an assessment is valid depends on the uses of the outcomes achieved with it.

Reliable Assessments

Reliability is the consistency of the measurement when the testing procedure is repeated on a different population of individuals or groups (American Educational Research Association, American Psychological Association, & National Council in Measurement in Education, 1999). Reliability depends first on test developers and distributors, who determine that an assessment is reliable. However, it also depends on those who create the conditions for testing and administer and score the test.

Applicable Research

In response to the needs and challenges described above, staff at the Center for Applied Linguistics (CAL) conducted an exploratory study to examine the state of adult ESL assessment, particularly as it is implemented in federally-funded adult ESL programs. The goals of the project were to (1) identify the gaps that exist in testing instruments currently available to adult ESL programs and (2) provide recommendations for the future of assessments that measure adult English language learners' growth in speaking, listening, reading, and writing in English. CAL staff worked with a panel of seven external advisors over a period of 18 months to meet these goals (Kenyon, Van Duzer, & Young, 2006).

The findings of the review of all 19 assessments pointed to the following limitations in many of the assessments currently used in adult ESL education: limited connections between test constructs and theories of second language acquisition; poorly defined test purposes, uses, and language constructs that can be operationalized; lack of evidence of psychometric rigor in the test development process; lack of equivalent alternate test forms or research to support the equivalence of existing forms; limited consideration of logistical factors that may impede or invalidate test implementation or assessment results; and limited consideration of the potential role of technology in administering and scoring assessments.

Overall, the review identified the need for more adult ESL assessments that cover a greater range of proficiency levels and language skills and that provide complete and well-researched links to the six NRS ESL educational functioning levels. However, NRS reporting will not be the only purpose needed for future adult ESL assessments. Adult English language learners want to see how they are progressing, teachers want feedback on the effectiveness of their instruction, program administrators need proof of program success in meeting the goals of the program and the needs of the learners, and funding agencies must determine if their money is being well spent. A single assessment may not meet all of these demands. For example, an assessment that relates scores to broadly defined NRS proficiency levels and is useful for determining level gain may not be able to provide diagnostic information related to mastery of specific ESL content standards.

Promising Practices

The findings of the review and study described above were ultimately incorporated into a design plan document that offered recommendations regarding the

development of future adult ESL assessments and/or the revision of existing ones to bring them in line with the needs of the adult ESL field. These promising practices in assessing adult English language learners in appropriate, reliable, and valid ways include the following themes:

- The development and operationalization of adult ESL assessments are informed by a variety of perspectives, including new research into language learning processes, psychometrics, educational measurement, and revised or expanded curricular frameworks and instructional content areas.
- Adult ESL assessments have a clear purpose and a defined construct, or “definitions of abilities that permit us to state specific hypotheses about how these abilities are or are not related to other abilities, and about the relationship between these abilities and observed behavior” (Bachman, 1990, p. 255), for the knowledge or language skill being assessed, within the context of the National Reporting System. Tests used in this context and for this purpose must be able to reliably show that student gains can be measured over a certain period of time if pretested and posttested with an appropriate, valid, and reliable standardized assessment (Kenyon & Van Duzer, 2003).
- Adult ESL assessments meet standard psychometric requirements related to appropriateness, reliability, validity, standardization, bias review, and test development procedures, as well as meeting the Office of Vocational and Adult Education requirements for test approval (see, e.g., U.S. Department of Education, 2006, p. 3).

- Documentation supporting the recommended number and intensity of instructional hours necessary to show learner progress accompanies adult ESL assessments, in order to better inform state assessment policies, to better prepare teachers for effective instruction, and ultimately to provide better feedback to learners regarding their progress; if the assessment is used for NRS purposes, evidence must also be provided that the instrument can validly place students into one of the federally designated adult ESL educational functioning levels.
- Adult ESL assessments should evaluate language proficiency in a performance-oriented, standardized way. Proficiency descriptors such as the NRS ESL educational functioning levels provide information about content, structure, and quality for language-use performance tasks to be developed indicating a learner's progress through or mastery of the these levels. For each of the NRS functioning levels, tasks need to be developed and validated that would represent completion of each proficiency level; scoring rubrics and guidelines for evaluating performance need to be in place; and administrators and evaluators need to be trained.
- Adult ESL assessments need to be useful for all stakeholders by positively impacting teaching and learning through timely, clear, and accessible scoring, interpretation, and reporting of assessment results. Adult ESL program administrators and teachers are able to read, understand, and make sound educational decisions based on assessment scores, while providing useful feedback to learners about their progress that will allow them to identify their own strengths and weaknesses, and formulate goals and strategies for improvement.

- Adult ESL assessments consider the role that technology might play in assessing students, as well as providing a positive influence on their familiarity with, understanding of, and use of technology. Such roles may include allowing content to be tailored to the learner's background; item difficulty to be tailored to the learner's skill level (e.g., an adaptive test); scoring to be automated (and thus reduce the risk of human error); and low-level literacy or visually impaired students to be accommodated by alternative response mechanisms, such as touch-screen systems or larger fonts. Multimedia technology makes multiple input formats available to allow for more extensive assessment of all four language skills. Technology has the potential to assess knowledge and skills that cannot be measured by traditional paper and pencil tests. In addition, the use of technology may reduce the risk that construct-irrelevant factors such as the size of printed words or unfamiliar response mechanisms like bubbling in response sheets affect student performance on the assessment. Technology also allows more flexibility in scheduling tests, Web-based scoring, and new item assessment formats by influencing how results and relevant data are scored, transported, converted, and kept within an instructional program.
- Adult ESL assessments are cost effective and incorporate an understanding of ESL program limitations in terms of funding, personnel, time, materials, logistics, and support, in implementing an operational testing program.
- Assessment procedures should be carried out within the context of a comprehensive program evaluation plan. State and program staff, learners, and external stakeholders should work together to set goals and objectives for the

program, develop measures to assess progress toward those goals and objectives, and identify how progress will be determined. A comprehensive plan allows learners to know how they are progressing, teachers to assess the effectiveness of instruction, administrators to monitor progress toward program goals and to gain feedback for program improvement, and external stakeholders to see the results of their investment (Holt & Van Duzer, 2000).

VI. Future Directions for Lifelong Learning

For immigrants in the U.S. workforce, as for native-born workers, success is related to educational attainment and literacy levels. That is, those with higher education and better literacy skills in English earn more and are more likely to be continuously employed than those without (Greenberg, Macías, Rhodes, & Chan, 2001). Better educated and more literate parents also have an impact on their children's educational progress and success (Martinez & Wang, 2005). English knowledge and ability will become increasingly significant if proposed immigration reform takes place in the United States, requiring undocumented immigrants to demonstrate mastery of English. A redesigned citizenship test is set to be released in October 2008, affecting millions of lawful permanent residents whose naturalization status may be affected by their performance on the test.

The adult ESL field is connected to and affected by a variety of workforce and postsecondary education initiatives. These initiatives, in turn, are affected by a greater number of tasks in daily American life that require knowledge of computers and new technologies. Adult immigrants may not only depend on technology for these tasks, but also for learning English when a traditional ESL classroom is not available or attendance is not feasible.

The National Reporting System collects information about learner outcomes beyond educational functioning levels to include information about obtaining and retaining employment, earning a high school degree or equivalency diploma, and entering a postsecondary educational program. For example, in 2004-2005, 34% of all 2,581,281 learners enrolled in adult basic education (ABE, ASE, and ESL) entered postsecondary

education or training at the conclusion of instruction (U.S. Department of Education, Office of Vocational and Adult Education, 2007a). 37% of all students entered the workforce, while 64% of all students retained employment. English language learners comprised 44% of these 2.5 million students. Because Hispanics made up the largest single group of enrollees during this time – 43% or 1,118,504 were Hispanic – one can assume that many of the learners who got and kept jobs, and at least some of those who achieved their GED, were English language learners. The statistics have not been disaggregated for English language learners.

In terms of employment and education outcomes, nonnative English speakers can clearly benefit from improved literacy and proficiency in English. Martinez & Wang (2005) report a 46% wage differential between immigrants who speak English and those who don't. Even after adjusting for education and work experience, those who spoke English earned 12% more than those who didn't. Several initiatives to address and provide these benefits are outlined below:

- *Workforce training and instruction for those not yet employed or those who are working in low-skilled, low-paying jobs.* The National Work Readiness Credential was released in 2007 to provide a means of demonstrating workers' capabilities, based on the Equipped for the Future standards of learning, to perform in entry-level positions by identifying them as “work ready” or “needs more skill development to be work ready” (National Work Readiness Council, 2007). The credential is granted with a passing score on the four modules (situational judgment, oral language, reading with understanding, and using math to solve problems) of the National Work Readiness assessment,

with nine related skills identified by business as critical for success in a global economy.

1. Speak so others can understand
2. Listen actively
3. Solve problems and make decisions
4. Cooperate with others
5. Resolve conflicts and negotiate
6. Observe critically
7. Take responsibility for learning
8. Read with understanding
9. Use math to solve problems

The National Work Readiness Credential is designed to provide clear and accurate information to learners and educators in determining what the learner's skills and needs are, what goals they have for instruction, and aligning instruction for the needs of business. An accompanying curriculum guide, *Getting Ready for the National Work Readiness Credential* (2007) complements the Equipped for the Future Standards Framework – both of which can be used by workforce preparation trainers and instructors to guide workforce instruction in a way that is responsive to the demonstrated needs of the learners.

- *Workplace instruction, vocational classes, and adult ESL classes for those already employed.* These classes can provide opportunities to learn workplace content and to practice English literacy skills and the communication skills

needed for success in the workplace. They can also provide cultural information: For example, for ESL participants who come from cultures where assertiveness, ambition, and speaking up on the job may not be valued, direct instruction in these areas may be necessary. Advancing in the U.S. workplace is a cross-cultural skill, which, like language and literacy skills, must be taught. However, there are strengths and challenges associated with each type of instructional program that must be carefully considered when selecting the most appropriate method of workforce preparation (Burt & Mathews-Aydinli, 2007).

- *Workforce training and pathways to careers in health care for immigrants who may or may not have medical training in their home countries.* Due to the fact that health care services represent one of the fastest-growing areas of employment in the United States, significant training of the workforce will be required to meet these employment needs (Dohm & Shniper, 2007). Labor market research identifies labor shortages in all areas of health care (Chisman & Spangenberg, 2005), and an aging population will bring an even greater need for health care workers at all levels. Turnover among those currently employed as Certified Nursing Assistants is very high. Non-white racial and ethnic groups will comprise a majority of the American population later in this century, requiring greater racial, ethnic, and linguistic diversity among health professionals. The need to create career pathways in health care for immigrants will be a focus of adult and workforce education and training for

the foreseeable future. (See Crandall, Spence, & Wrigley, in press, for more information.)

- *Distance education (e.g., videos, telecourses) for those unable to attend traditional, face-to-face instructional programs.* Because video-based and online distance education can use an asynchronous delivery method, learners who work at more than one job and whose responsibilities conflict with the time of regular class offerings can study whenever they have time. Those with transportation or childcare problems can study without leaving their homes. Learners who need to acquire new skills expediently can progress through the materials at a rapid pace; others may need or want to move through the program at a slower pace. Creating a free and accessible Web-based Portal to help immigrants learn English is one of the U.S. Department of Education's planned projects (see www.ed.gov/about/offices/list/ovae/pi/AdultEd/index.html for more information).
- *More complete information about new and current adult English language learner populations in the United States.* Expanded and disaggregated demographic information is needed on the adult immigrant population and labor force in the United States, adult populations who self-identify as limited English proficient, and adult populations who are enrolled in public and private English language instructional programs. Recent data show a significant number of adult immigrants with low literacy levels in English and/or in their native languages. On the other hand, members of Generation

1.5 (people who immigrate to a new country before or during their early teens) and of second and third generation immigrant families are increasingly enrolled in K-12, adult, postsecondary, and vocational education. These learners may have fluency in both English and another language that may benefit the United States in the fields of health care, education, or security if they have the education necessary to fulfill these careers. More information is needed about these populations' native language backgrounds and literacy levels, English proficiency in all four language skills, educational levels, and goals in order to better meet their educational and employment needs. For example, the English for Heritage Language Speakers (EHLS) project is being carried out from 2005-2010 to help heritage speakers of critical languages develop their English proficiency to high levels, with a particular focus on language skills specific to the federal workplace. (See www.cal.org/ehls for more information.)

- *Transitions to postsecondary education and training.* At the higher NRS educational functioning levels, thought must be given to next steps for adult English language learners in their educational progress: What kinds and levels of English will they need to obtain a secondary credential, enter into postsecondary education, or advance in their employment – and how will that be measured?

VII. Conclusion

Currently, 44% of the adult education population served in federally funded programs are English language learners. Population trends and projections for the next 10 years indicate that the number of adult English language learners in the United States will continue to grow. The adult education system is committed to providing quality instruction for this population. The current emphases on learner assessment and program accountability, professional development, standards, transitioning to postsecondary or vocational education, and uses of technology will help meet this goal. However, more research needs to be conducted and disseminated on how adults learn English, what instructional and assessment methods are most useful, how practitioners implement professional learning in the classroom, and how technology can be best used for learner instruction and teacher training. Efforts in these areas have begun, and we look forward to their development and fruition in the near future.

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Appendix I : NRS Functioning Level Table

Outcome Measures Definitions			
EDUCATIONAL FUNCTIONING LEVEL DESCRIPTORS—ENGLISH AS A SECOND LANGUAGE LEVELS			
Literacy Level	Listening and Speaking	Basic Reading and Writing	Functional and Workplace Skills
<p>Beginning ESL Literacy</p> <p><i>Test Benchmark:</i></p> <p>CASAS scale scores:</p> <p>Reading: 180 and below</p>	<p>Individual cannot speak or understand English, or understands only isolated words or phrases.</p>	<p>Individual has no or minimal reading or writing skills in any language. May have little or no comprehension of how print corresponds to spoken language and may have difficulty using a writing instrument.</p>	<p>Individual functions minimally or not at all in English and can communicate only through gestures or a few isolated words, such as name and other personal information; may recognize only common signs or symbols (e.g., stop sign, product logos); can handle only very routine entry-level jobs that do not require oral or written communication in English. There is no knowledge or use of computers or technology.</p>
<p>Low Beginning ESL</p> <p>Test benchmark:</p> <p>CASAS scale scores</p> <p>Reading: 181–190</p> <p>Listening: 181–190</p> <p>Writing: 136–145</p> <p>Oral BEST 16–28 (SPL 2)</p> <p>BEST Plus: 401–417 (SPL 2)</p> <p>BEST Literacy: 8–35 (SPL 2)</p>	<p>Individual can understand basic greetings, simple phrases and commands. Can understand simple questions related to personal information, spoken slowly and with repetition. Understands a limited number of words related to immediate needs and can respond with simple learned phrases to some common questions related to routine survival situations. Speaks slowly and with difficulty. Demonstrates little or no control over grammar.</p>	<p>Individual can read numbers and letters and some common sight words. May be able to sound out simple words. Can read and write some familiar words and phrases, but has a limited understanding of connected prose in English. Can write basic personal information (e.g., name, address, telephone number) and can complete simple forms that elicit this information.</p>	<p>Individual functions with difficulty in social situations and in situations related to immediate needs. Can provide limited personal information on simple forms, and can read very simple common forms of print found in the home and environment, such as product names. Can handle routine entry level jobs that require very simple written or oral English communication and in which job tasks can be demonstrated. May have limited knowledge and experience with computers.</p>

Appendix I : NRS Functioning Level Table

Outcome Measures Definitions			
EDUCATIONAL FUNCTIONING LEVEL DESCRIPTORS—ENGLISH AS A SECOND LANGUAGE LEVELS			
Literacy Level	Listening and Speaking	Basic Reading and Writing	Functional and Workplace Skills
<p>High Beginning ESL Test benchmark: CASAS scale scores Reading: 191–200 Listening: 191–200 Writing: 146–200</p>	<p>Individual can understand common words, simple phrases, and sentences containing familiar vocabulary, spoken slowly with some repetition. Individual can respond to simple questions about personal everyday activities, and can express immediate needs, using simple learned phrases or short sentences. Shows limited control of grammar.</p>	<p>Individual can read most sight words, and many other common words. Can read familiar phrases and simple sentences but has a limited understanding of connected prose and may need frequent re-reading.</p> <p>Individual can write some simple sentences with limited vocabulary. Meaning may be</p>	<p>Individual can function in some situations related to immediate needs and in familiar social situations. Can provide basic personal information on simple forms and recognizes simple common forms of print found in the home, workplace and community. Can handle routine entry level jobs requiring basic written or oral English communication and in which job tasks can be demonstrated. May have limited knowledge or experience using computers.</p>
<p>Low Intermediate ESL Test Benchmark: CASAS scale scores: Reading: 201–210 Listening: 201–210 Writing: 201–225 Oral BEST: 42–50 (SPL 4) BEST Plus: 439–472 (SPL 4) BEST Literacy: 47–53 (SPL 4)</p>	<p>Individual can understand simple learned phrases and limited new phrases containing familiar vocabulary spoken slowly with frequent repetition; can ask and respond to questions using such phrases; can express basic survival needs and participate in some routine social conversations, although with some difficulty; and has some control of basic grammar.</p>	<p>Individual can read simple material on familiar subjects and comprehend simple and compound sentences in single or linked paragraphs containing a familiar vocabulary; can write simple notes and messages on familiar situations but lacks clarity and focus. Sentence structure lacks variety but shows some control of basic grammar (e.g., present and past tense) and consistent use of punctuation (e.g., periods, capitalization).</p>	<p>Individual can interpret simple directions and schedules, signs, and maps; can fill out simple forms but needs support on some documents that are not simplified; and can handle routine entry level jobs that involve some written or oral English communication but in which job tasks can be demonstrated. Individual can use simple computer programs and can perform a sequence of routine tasks given directions using technology (e.g., fax machine, computer).</p>

Appendix I : NRS Functioning Level Table

Outcome Measures Definitions			
EDUCATIONAL FUNCTIONING LEVEL DESCRIPTORS—ENGLISH AS A SECOND LANGUAGE LEVELS			
Literacy Level	Listening and Speaking	Basic Reading and Writing	Functional and Workplace Skills
<p>High Intermediate ESL</p> <p>Test Benchmark: CASAS scale scores: Reading: 211–220 Listening: 211–220 Writing: 226–242</p> <p>Oral BEST: 51–57 (SPL 5) BEST Plus: 473–506 (SPL 5) BEST Literacy: 54–65 (SPL 5-6)</p>	<p>Individual can understand learned phrases and short new phrases containing familiar vocabulary spoken slowly and with some repetition; can communicate basic survival needs with some help; can participate in conversation in limited social situations and use new phrases with hesitation; and relies on description and concrete terms. There is inconsistent control of more complex grammar.</p>	<p>Individual can read text on familiar subjects that have a simple and clear underlying structure (e.g., clear main idea, chronological order); can use context to determine meaning; can interpret actions required in specific written directions; can write simple paragraphs with main idea and supporting details on familiar topics (e.g., daily activities, personal issues) by recombining learned vocabulary and structures; and can self and peer edit for spelling and punctuation errors.</p>	<p>Individual can meet basic survival and social needs, can follow some simple oral and written instruction, and has some ability to communicate on the telephone on familiar subjects; can write messages and notes related to basic needs; can complete basic medical forms and job applications; and can handle jobs that involve basic oral instructions and written communication in tasks that can be clarified orally. Individual can work with or learn basic computer software, such as word processing, and can follow simple instructions for using technology.</p>
<p>Advanced ESL</p> <p>Test Benchmark: CASAS scale scores: Reading: 221–235 Listening: 221–235 Writing: 243–260</p> <p>Oral BEST 58–64 (SPL 6) BEST Plus: 507–540 (SPL 6) BEST Literacy: 66 and above (SPL 7)</p> <p>Exit Criteria: CASAS Reading and Listening: 236 and above</p> <p>CASAS Writing: 261 and above</p> <p>Oral BEST 65 and above (SPL 7) BEST Plus: 541 and above (SPL 7)</p>	<p>Individual can understand and communicate in a variety of contexts related to daily life and work. Can understand and participate in conversation on a variety of everyday subjects, including some unfamiliar vocabulary, but may need repetition or rewording. Can clarify own or others' meaning by rewording. Can understand the main points of simple discussions and informational communication in familiar contexts. Shows some ability to go beyond learned patterns and construct new sentences. Shows control of basic grammar but has difficulty using more complex structures. Has some basic fluency of speech.</p>	<p>Individual can read moderately complex text related to life roles and descriptions and narratives from authentic materials on familiar subjects. Uses context and word analysis skills to understand vocabulary, and uses multiple strategies to understand unfamiliar texts. Can make inferences, predictions, and compare and contrast information in familiar texts. Individual can write multi-paragraph text (e.g., organizes and develops ideas with clear introduction, body, and conclusion), using some complex grammar and a variety of sentence structures. Makes some grammar and spelling errors. Uses a range of vocabulary.</p>	<p>Individual can function independently to meet most survival needs and to use English in routine social and work situations. Can communicate on the telephone on familiar subjects. Understands radio and television on familiar topics. Can interpret routine charts, tables and graphs and can complete forms and handle work demands that require non-technical oral and written instructions and routine interaction with the public. Individual can use common software, learn new basic applications, and select the correct basic technology in familiar situations.</p>



NATIONAL ASSESSMENT OF VOCATIONAL EDUCATION

FINAL REPORT TO CONGRESS

2004

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Office of the Under Secretary
Policy and Program Studies Service

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Contents

	Page
List of Tables	v
List of Figures	xiii
Acknowledgments	xvii
Executive Summary	xix
Chapter 1 Introduction	1
A. 1998 Perkins Act.....	2
B. Context for Evaluating Federal Support for Vocational Education	6
C. National Assessment of Vocational Education	12
D. Overview of this Final Report to Congress	15
Chapter 2 Secondary Vocational Education	17
A. Organization of Vocational Education at the Secondary Level	19
B. Access and Participation	24
C. Implementation: Program Quality and Improvement Efforts	52
D. Coordination with Other Reforms	93
E. Outcomes and Effects.....	99
Chapter 3 Postsecondary Vocational Education	123
A. Organization of Vocational Education at the Postsecondary Level.....	125
B. Access and Participation	129
C. Implementation: Program Quality and Improvement Efforts	148
D. Coordination with Workforce Investment Act.....	158
E. Outcomes and Effects.....	165
Chapter 4 Tech-Prep Education	183
A. Organization of Tech-Prep.....	184
B. Access and Participation	186
C. Implementation.....	195
D. Outcomes and Effects.....	206
Chapter 5 Program Management: Funding and Accountability	209
A. Overview of Perkins Funding and Accountability Provisions.....	211
B. Perkins State Grant Funding at the Secondary Level	220

C. Perkins State Grant Funding at the Postsecondary Level.....	241
D. Perkins Tech-Prep Grant Funding.....	252
E. Perkins Accountability Systems and Their Implementation.....	259
Chapter 6 Conclusions and Potential Future Directions for the Perkins Act.....	281
A. Conclusions.....	281
B. Options for Future Directions	299
References.....	315
Independent Advisory Panel.....	329
NAVE Study Reports.....	333

Note:
**This Excerpt includes only the Chapter on
Postsecondary Vocational Education.**

**The full report is located at:
[http://www.ed.gov/rschstat/eval/sectech/nave/navefinal.
pdf](http://www.ed.gov/rschstat/eval/sectech/nave/navefinal.pdf)**

3. Postsecondary Vocational Education

Vocational education is offered at both the postsecondary and high school levels, but at each level the mission of the educational institutions that provide it and the objectives of the students who participate are quite different. In reauthorizing the Perkins Act, policymakers may therefore wish to consider (1) whether postsecondary vocational education is sufficiently distinct from secondary vocational education to warrant separate treatment in the legislation, and (2) if a new law should focus on particular problems in postsecondary vocational education (e.g., improving students' completion rates or easing their transitions from high school), or as is currently the case, allow grantees to decide. These issues are particularly important if postsecondary vocational education is to be better coordinated with the workforce development system, an outcome Congress promoted in Perkins III.

To help inform these overarching policy concerns, this chapter provides background on how postsecondary vocational education is organized (Section A) and addresses four main questions:

1. Who enrolls in postsecondary vocational education and what are their objectives? (Section B)
2. To what extent are the strategies promoted in Perkins III implemented at postsecondary institutions that provide vocational education? (Section C)
3. What role does postsecondary vocational education play in formulating state and local workforce development strategies? (Section D)
4. What are the economic benefits of participating in postsecondary vocational education? (Section E)

Key Findings

- ***Postsecondary vocational education provides economic benefits to most participants, with the minority who earn a credential reaping the greatest benefits.***

Important economic benefits are associated with participation in postsecondary vocational education. Even those who leave occupational programs without obtaining a degree or certificate earn between 5 and 8 percent more per year for each year they participate in postsecondary vocational education than do high school graduates with similar characteristics. However, credentials do matter. The benefits of completing a vocational associate degree are significantly higher: females who have such a degree earn nearly 47 percent more than females with a high school diploma, and their male counterparts earn 30 percent more. In addition, entry into fast-growing fields such as health care and information technology increasingly depends upon completing some type of credential—either a college degree or an industry-based certificate.

Despite the added economic advantage associated with earning a credential, less than half of all postsecondary vocational participants earn a credential of any kind—an institutional certificate or associate or baccalaureate degree. Most (68.3 percent) complete a year or less of course work. Although about half of the students appear to be seeking a certificate or degree, many others may not enroll with that objective in mind. Taking student goals and characteristics into account, the completion rate for vocational majors is similar to that of academic majors, although vocational participants are more likely to earn a shorter-term credential (e.g., certificate) than the one they originally sought.

► ***Postsecondary vocational education serves a large, diverse population with varied needs and objectives.***

The postsecondary vocational education enterprise is large, serving nearly one-third of all undergraduates and two-thirds of students enrolled at community and technical colleges who have declared a major. A significant proportion of these students are “economically disadvantaged” (21.2 percent are from households in which the annual family income is less than \$20,000) or are “academically disadvantaged,” while others have previously earned postsecondary credentials, most commonly certificates (30.4 percent). Nationally, about half enroll in postsecondary vocational education within a few years of graduating high school, while the other half are more than 23 years old. Given their diverse characteristics, it is no surprise that these students enroll with different objectives in mind. About half are specifically seeking a credential (certificate, associate degree, or a baccalaureate degree), while one-third say they enrolled to obtain job skills; the remainder participate for personal enrichment purposes. Understanding why students choose to enroll in postsecondary vocational education is crucial to determining what they subsequently accomplish and whether those outcomes are adequate.

► ***Some Perkins improvement strategies are consistent with vocational education practice in postsecondary institutions, but the extent to which Perkins “drives” these strategies is unclear.***

A number of improvement strategies promoted in both Perkins II and Perkins III—e.g., the involvement of employers, use of current technology, articulation agreements—are standard in many community and technical colleges. Other strategies, such as the integration of academic and vocational education, receive less emphasis. The prevalence of these practices, however, may be mostly related to how postsecondary institutions carry out their training missions. Several factors are likely to limit the impact of Perkins legislation on the implementation of postsecondary vocational education: (1) the small amount of Perkins funds received by any individual postsecondary institution (on average 2 percent of their yearly expenditures); (2) the perception that improvement strategies emphasized in Perkins III are based on the needs of high schools; and (3) the historic independence of postsecondary institutions, in some cases even from state agencies.

- ▶ *Community and technical colleges had limited involvement in the early implementation of the Workforce Investment Act (WIA), citing low emphasis on training and reporting requirements as disincentives.*

In the early stages of WIA implementation—during a period of economic expansion and job growth—the emphasis was primarily on organization and the delivery of job information rather than the kinds of training activities Perkins-eligible institutions typically provide. For example, in 2000, nearly three-quarters of those who participated in the previous federal job training system (the Job Training Partnership Act) received training, while only one-third of WIA registrants did so. There is some evidence that, with the recent economic downturn, the proportion of training vouchers is increasing, as is policy interest in training. However, the lack of coordination—primarily at the state and local levels—between WIA and Perkins accountability measures still entails substantial costs for participating institutions.

A. Organization of Vocational Education at the Postsecondary Level

The Perkins Act primarily funds community and technical colleges, but the postsecondary vocational education enterprise as a whole includes many other providers—business, industry associations, unions, and for-profit schools. This broad group of institutions offers a wide range of postsecondary training opportunities including credit and noncredit courses offered in programs of varying length. Increasingly students also can decide whether they want to receive their instruction in conventional classroom settings or online. This diverse and evolving environment, though, presents challenges for federal policy.

The Perkins Act defines vocational education as programs preparing individuals for occupations requiring less than a baccalaureate degree (P.L. 105-332, Section 3(29)). Based on this definition, two key terms are most relevant for examining vocational education at the postsecondary level:

- ▶ **All sub-baccalaureate:** Refers to programs offered in less-than-four-year institutions or those that lead to less than a baccalaureate degree (including no degree) at a four-year institution. Sub-baccalaureate students are those who participate in these programs. Because of the stipulation in Perkins policy, this level of activity is the main focus of NAVE analysis.
- ▶ **Sub-baccalaureate vocational students:** Defined as sub-baccalaureate students by their major, according to the National Center for Education Statistics (NCES) classifications.¹

¹ Vocational fields include agriculture and natural resources; business, management, marketing, and support services; allied health professions, services, and health technicians; home economics and family and consumer sciences; personal services; legal support services; protective services; computer and information sciences; engineering and related technologies and science technologies; communications technologies; construction; mechanics and repair; precision production; and transportation and materials moving (Levesque et al. 2000).

Postsecondary vocational education consists of credit and noncredit courses offered at a variety of institutions.

Vocational education at the postsecondary level is a complex enterprise with many types of providers, only some of which are eligible to receive Perkins funding. Postsecondary vocational education includes for-credit programs leading to various credentials, in addition to single, noncredit courses to fulfill the diverse objectives of participants. Most providers, including those eligible for Perkins grants, offer a full array of these offerings and can determine which of the many choices to support with Perkins funds, including those that do not lead to a credential.²

• ² However, under Perkins III, grantees must use funds to support programs that consist of a sequence of courses and opportunities for competency-based learning. As a result, some offerings (e.g., single-course or limited leisure programs) cannot be funded with Perkins grants.

- *Perkins-funded institutions, especially community colleges, are the main providers of for-credit vocational programs, while institutions not eligible for Perkins grants are the main providers of noncredit courses.* Based on student counts in 1999, 40.4 percent of those participating in for-credit vocational courses—those that could lead to a postsecondary credential—did so at a community college (Table 3.1). Fewer participated in for-credit courses at proprietary institutions (22.6 percent) or at any other type of postsecondary institution. In contrast, business or industry was the single most important provider of the noncredit, job-related classes, seminars, and training programs offered nationally (36.7 percent of participants took advantage of these offerings). Only a small share of job-related noncredit participants reported taking their courses at “formal” postsecondary education institutions, such as a four-year college or university (11.9 percent), a community college (4.3 percent), or a public two-year vocational or technical school (1.9 percent).

Table 3.1
Percentage Distribution of Adults Participating in For-credit and
Noncredit Job-Related Courses,¹ by Type of Provider: 1999

Provider	Credit	Noncredit
Area vocational centers	0.9	4.3
Two-year community college	40.4	4.3
Public two-year vocational or technical school	13.5	1.9
Four-year college or university	5.2	11.9
Proprietary school	22.6	9.1
Adult learning center	2.2	1.3
Business or industry	5.2	36.7
Professional association or labor union	2.0	10.4
Government agency and public library	4.9	11.6
Community, religious, or other organization	3.1	8.6
Total	100.0	100.0

SOURCE: Bailey, Leinbach, et al. forthcoming. Analysis of the National Household Education Survey, 1999.

¹According to the NCES taxonomy, “credit” courses and programs are defined as job-related if they are vocational.

- ▶ ***Institutions that receive Perkins funds (primarily community colleges) predominantly serve vocational students through for-credit courses and programs.***³ About two-thirds of students with a vocational emphasis at community colleges enroll in for-credit courses.⁴ Noncredit offerings at these institutions, although significant, do not represent their primary business activity.

The following describes the vocational programs and courses usually offered by postsecondary vocational providers, including those that receive funds under the Perkins Act.

- ▶ ***Associate degree programs (terminal or transfer-up):*** Generally made up of both academic and vocational for-credit course work (totaling roughly 60 credits), these programs can take two or more years to complete, depending on how many credits students earn each semester.⁵
- ▶ ***Institutional certificate programs:*** Typically designed to upgrade job-related skills, these programs usually require about one year’s worth of full-time instruction in for-credit courses (24–30 credits), and compared to associate degree programs, involve far less, if any, academic courses.⁶ However, certificates can be of varied duration and can be earned for quite diverse activities.⁷ They are distinct from the increasingly popular industry skill certificates described below.
- ▶ ***Industry skill certifications:*** Developed and recognized by industry, these certificates are designed to signal proficiencies and are awarded to students based on their demonstrating well-defined skills (often through a test). Although postsecondary institutions and other training providers offer preparation for these tests, self-study is also a frequent strategy. An industry association or employer group, not the training provider, grants the certificates.
- ▶ ***Noncredit course work:*** Intended mostly to accommodate those seeking specific job-related skills—e.g., Introduction to Windows (three hours) and Real Estate License Exam Preparation (20 hours)—or personal enrichment activities—e.g., ceramics or aerobics. Like courses within certificate programs, noncredit courses are diverse in their content and

• ³ State financing policies, which vary from state to state, may play a role in the extent of noncredit offerings at public postsecondary institutions. For example, in Arizona, the state does not pay individual institutions for noncredit courses, and perhaps as a result, for-credit enrollments are proportionally higher than in other states. In contrast, Texas reimburses its postsecondary institutions for enrollments in noncredit courses, and participation in these courses is relatively high. The prevalence of noncredit courses varies widely from institution to institution as well. In Florida “supplemental vocational courses”—noncredit courses for people seeking to enhance their job skills—are about 25 percent of a given institution’s headcount (Teitelbaum 2001, descriptive information from Florida state data). In contrast, a community college in Michigan reports that noncredit courses are less than 10 percent of their course offerings and less than half of those are job-related (Jacobs 2001).

• ⁴ NAVE internal analyses of NPSAS 2000.

• ⁵ Descriptive information from Florida state data.

• ⁶ Descriptive information from Florida state data.

• ⁷ Examples range from a floral arranging program lasting only a few weeks to a two-year certificate program in airframe and power plant mechanics.

contact time. These can be stand-alone courses or sequenced courses in a nondegree-granting program (sometimes similar or even indistinguishable from for-credit courses offered in vocational degree or certificate programs).⁸ Under Perkins III, funds can be directed only at programs that consist of a sequence of courses and that include competency-based learning (Section 3(29); Sections 134 and 135); thus, single courses and most enrichment activities are technically no longer supported by federal grants.

It is important to distinguish between for-credit and noncredit offerings at Perkins-eligible institutions because Perkins policy appears to favor for-credit course work. First, postsecondary Perkins grants are allocated within states to postsecondary institutions based on a formula weighted toward the number of Pell grant (federal financial aid) recipients the institutions serve.⁹ This provision has the effect of placing greater emphasis on institutions that promote degrees and credentials because Pell grants are available only to income-eligible students who pursue for-credit (degree-oriented) course work. Second, Perkins III accountability provisions include “completion of a postsecondary degree or credential” as a key measure of performance (P.L. 105-332, Section 113(b)). However, there is no explicit language in the law that prevents institutions from using Perkins funds to support noncredit vocational course work or participants, as long as participation is in a sequence of courses that meets the federal requirements (Sections 134 and 135). Thus, this chapter examines both credit and noncredit participation to some extent.

B. Access and Participation

An increasing number of occupations require education beyond high school, and, for many students, postsecondary vocational education provides an avenue to enter them. The most recent Bureau of Labor Statistics (BLS) projections indicate that occupations requiring a postsecondary vocational credential accounted for 29 percent of all jobs in 2000 but will represent 42 percent of the total job growth from 2000 to 2010 (Hecker 2001). The extent to which postsecondary vocational enrollments match labor market needs and include those who have historically faced barriers to employment success is of considerable policy interest.

1. Trends and Patterns of Enrollment

Although a majority of high school students aspire to earning bachelors’ degrees (Sanderson et al. 1996), by some key measures, 6 out of 10 postsecondary students actually enroll in sub-baccalaureate programs including vocational ones.¹⁰ About 3 in 10 undergraduates major in a vocational field at the sub-baccalaureate level.

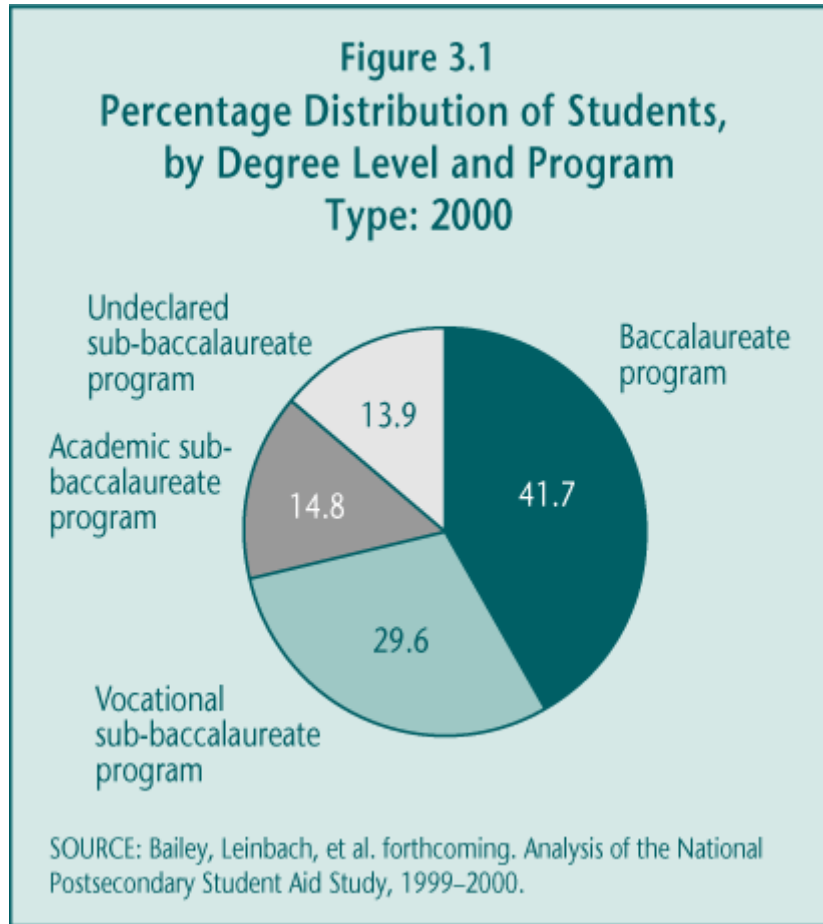
• ⁸ Descriptive information from Florida state data.

• ⁹ This provision was intended to promote equal access to vocational programs by providing relatively more financial support to institutions serving large numbers of economically disadvantaged students (as approximated by financial aid criteria). Under Section 132(b), the law permits the secretary of education to approve alternative formulas.

• ¹⁰ National data on postsecondary enrollment are reported in different ways. Most commonly, the figures are based on fall enrollments provided by individual institutions of higher education (e.g., to NCES through the Integrated Postsecondary Education Data System (IPEDS)). However, limiting enrollment data to the fall greatly reduces the number of reported participants at the sub-baccalaureate level because many of these students enroll throughout the year. In addition, IPEDS

Sub-baccalaureate vocational programs continue to be a significant part of postsecondary education and of community college enrollments.

In 2000, just under one-third of all postsecondary undergraduates in for-credit programs (Figure 3.1)—an estimated 4.9 million youths and adults¹¹—were enrolled in sub-baccalaureate vocational education.



- ▶ ***All sub-baccalaureate students outnumber baccalaureate students.*** Among those pursuing for-credit course work, a higher proportion of students participate in sub-baccalaureate programs (58.3 percent, the combined total of students in vocational, academic, and undeclared sub-baccalaureate programs) than in baccalaureate programs

enrollment data are reported by institution type (four-year and two-year). Because 13.5 percent of sub-baccalaureate programs are offered at four-year institutions, when aggregate IPEDS enrollment figures are reported just for two-year institutions, participation in sub-baccalaureate programs is underreported (Bailey, Leinbach, et al. forthcoming).

- ¹¹ Calculation based on 29.6 percent (see Figure 3.1) of the total number of undergraduates. The total number of undergraduates (16,539,461) enrolled in for-credit courses is estimated from NPSAS 2000 (e-mail communication with NCES project officer Andrew Malizio).

(41.7 percent). If noncredit participants were included, then the share of all postsecondary students who are enrolled in sub-baccalaureate education would be even greater.

- ▶ ***At the sub-baccalaureate level, more students enroll in a vocational than in an academic major.*** Among sub-baccalaureate students, twice as many (50.8 percent) choose a vocational major as an academic major (25.4 percent). The remaining are “undeclared” (23.9 percent), a category that has been growing somewhat since the early 1990s (up from 18.0 percent in 1996) (Silverberg et al. 2002).

Postsecondary vocational participants are more likely to enroll in associate degree programs than in institutional certificate programs.

Postsecondary institutions supported by Perkins grants traditionally have offered both associate degree and institutional certificate programs, each resulting in a different credential based on institutional and, in some cases, state requirements. Both credentials are conferred by higher education institutions and are included in the data collection efforts of NCES. Although the number of industry-developed certificates conferred has increased over time, they are not included in NCES collection efforts because educational institutions do not confer such credentials.

- ▶ ***Enrollment in associate degree programs far exceeds that of institutional certificate programs.*** Among students declaring a vocational major, two-thirds aim to obtain associate degrees, while only one-third intend to pursue institutional certificates. Although the proportion of vocational students seeking an institutional certificate appears to have grown between 1996 and 2000 (from 29.8 percent to 33.3 percent), the difference is not statistically significant (Bailey, Leinbach, et al. forthcoming; Silverberg et al. 2002).
- ▶ ***Although the number of industry-developed certificates conferred is growing, the role of Perkins-eligible institutions in this growth is unclear.*** Although NCES data do not provide information on certificates conferred by employers or by national industry, trade, and professional associations, the groups themselves report that the number of certificates offered and granted is increasing. For example, there was nearly a tenfold increase in Microsoft Certified Systems Engineer (MCSE) certificates awarded between 1997 and 2000—from about 35,000 to more than 280,000. Much of this activity, however, may be taking place outside of Perkins-eligible postsecondary institutions.¹²

Enrollments in vocational associate degree programs appear to respond somewhat to shifts in the labor market.

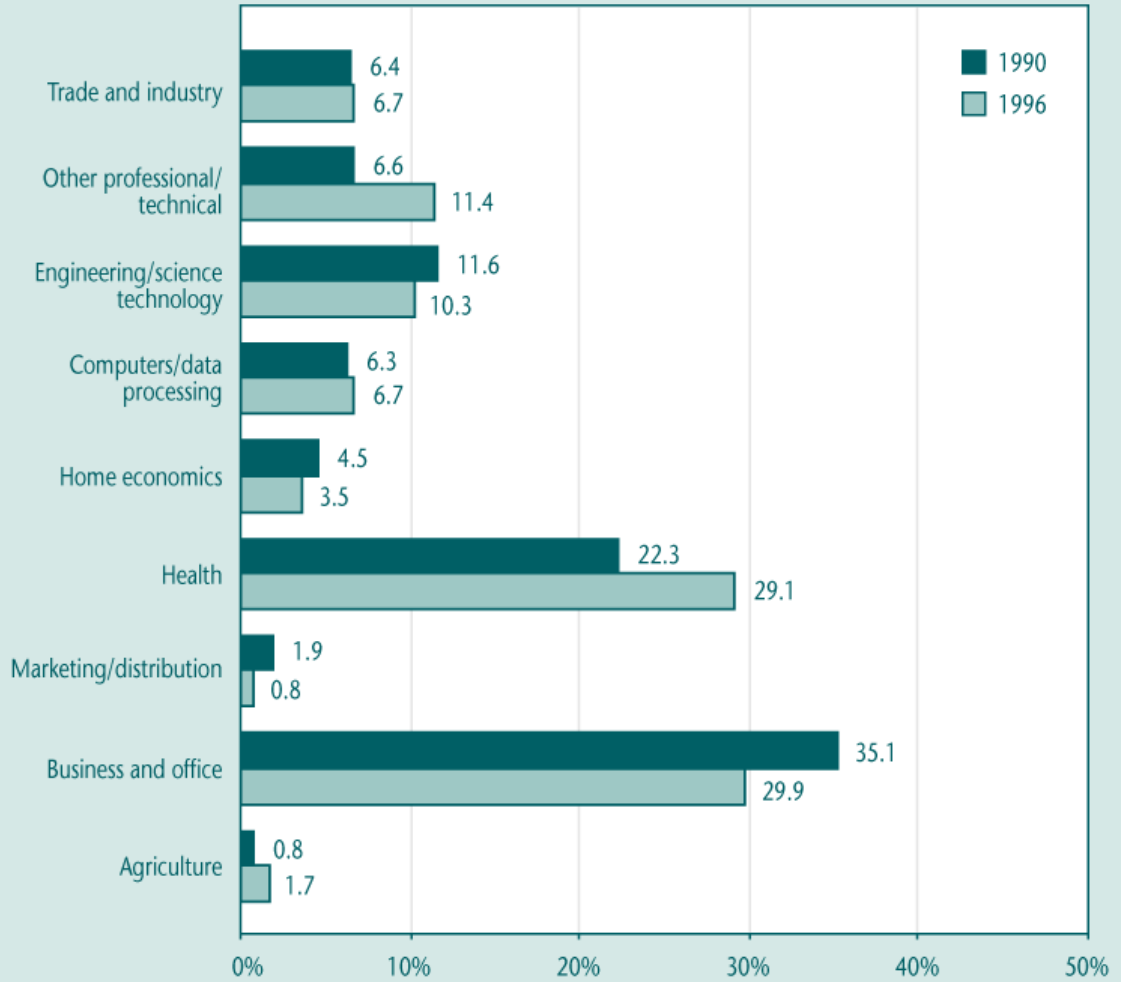
• ¹² At least in the prominent area of information technology (IT), much of the growth in courses occurs outside the formal postsecondary education system (i.e., courses offered by commercial training providers) (Adelman 2000). A recent survey of community colleges (Haimson and Van Noy forthcoming) indicates that only about a quarter offer courses that prepare students for IT certification in Novell, Microsoft, or Cisco.

The primary purpose of postsecondary vocational education is to prepare individuals to enter and succeed in specific occupations in the labor market. The ability of postsecondary institutions to offer up-to-date programs that respond to fluctuations in employment supply and demand is crucial to maintaining program quality. Of course, student demand—i.e., enrollments—is an important factor in the choices that institutions make. Therefore, examining the relationship between national labor market trends and patterns of enrollment in postsecondary vocational education provides a measure of that responsiveness.¹³

- ▶ ***Enrollments in vocational programs have grown substantially since the 1980s.*** Overall enrollments in postsecondary education have increased since the early 1980s, with enrollments at the sub-baccalaureate level remaining consistent with that trend. Between 1989–1990 and 1995–1996, enrollments in various vocational associate degree programs grew (Figure 3.2a) by 27.0 percent overall, perhaps in response to strong employment growth during that period in fields that require such training (Silverberg et al. 2002). More recent data suggest that postsecondary enrollments in general and, for the most part, those in sub-baccalaureate vocational programs, leveled off between 1990 and 2000.

• ¹³ Findings presented here emphasize associate degree enrollments. Enrollments in institutional certificate programs appear to be somewhat responsive to labor market shifts as well (see Silverberg et al. 2002).

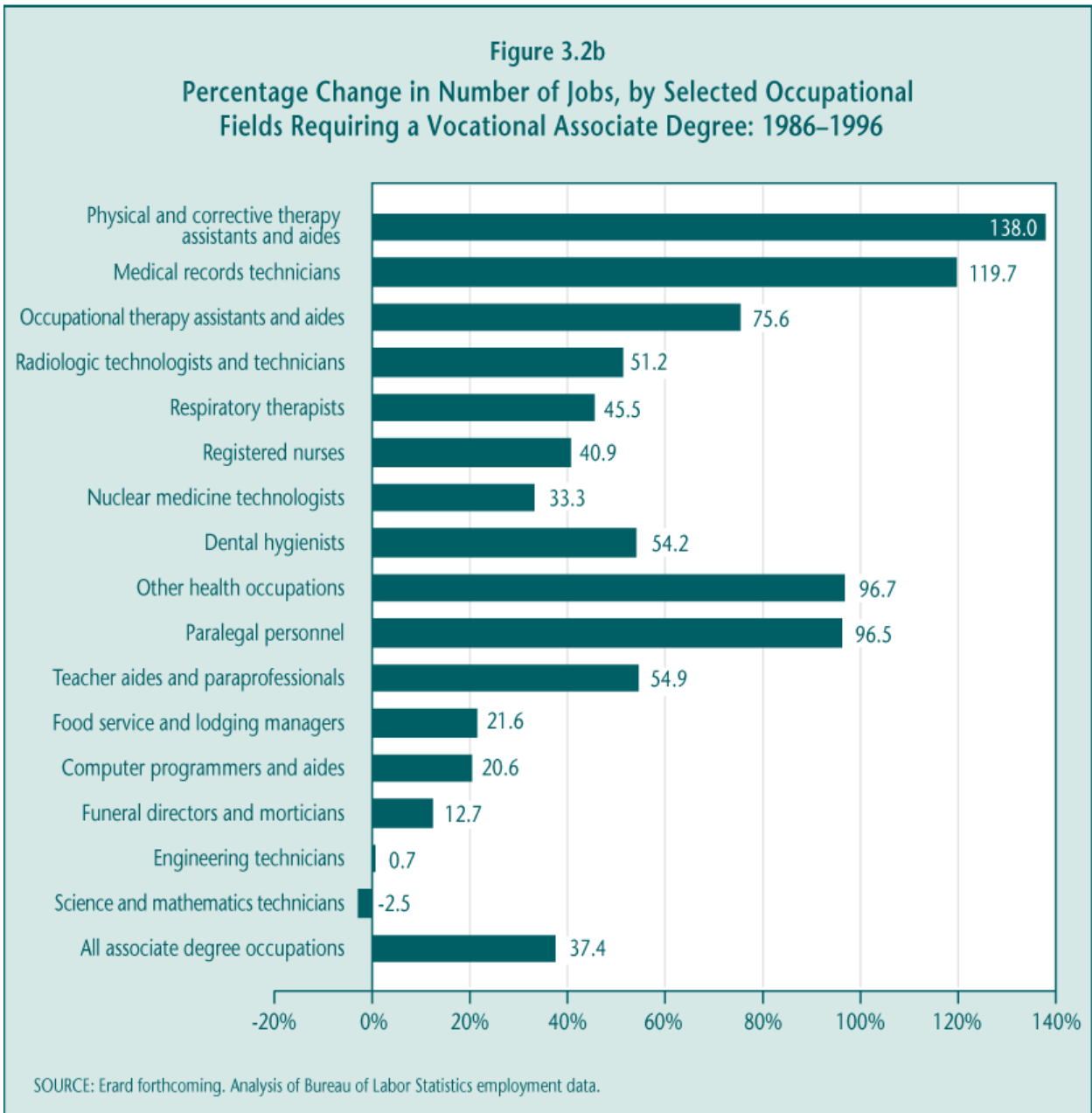
Figure 3.2a
Percentage Distribution of Students Enrolled in Vocational Associate Degree Programs, by Field of Study: 1990 and 1996



SOURCE: Erard forthcoming. Analysis of the National Postsecondary Student Aid Study, 1989–1990 and 1995–1996.

NOTE: Percentages may not add to 100.0 due to rounding.

► **Postsecondary vocational enrollment patterns are generally consistent with labor market shifts by occupational field.** The most recent analysis of the correspondence between enrollments in postsecondary vocational education and job growth focused on changes that occurred between 1990 and 1996 in particular fields of study and occupations (Erard forthcoming). Both health- and computer-related fields experienced substantial job growth from 1986 to 1996 (Figure 3.2b) and, perhaps in anticipation of robust employment opportunities, the proportion of sub-baccalaureate vocational students enrolled in these programs also increased (Figure 3.2a). Fields with relatively slow or even declining job growth between 1986 and 1996—such as business—experienced declines in their postsecondary vocational enrollments.



More recent data generally show consistent patterns in enrollment and labor market demand. For example, enrollments in computer and data processing associate degree programs nearly doubled between 1996 and 2000, possibly in response to past and projected job growth. Health, a large sub-baccalaureate program, may be a notable exception. Despite continued favorable employment projections, enrollments have remained relatively steady since 1996 (Hecker 2001; Bailey, Leinbach, et al. forthcoming).

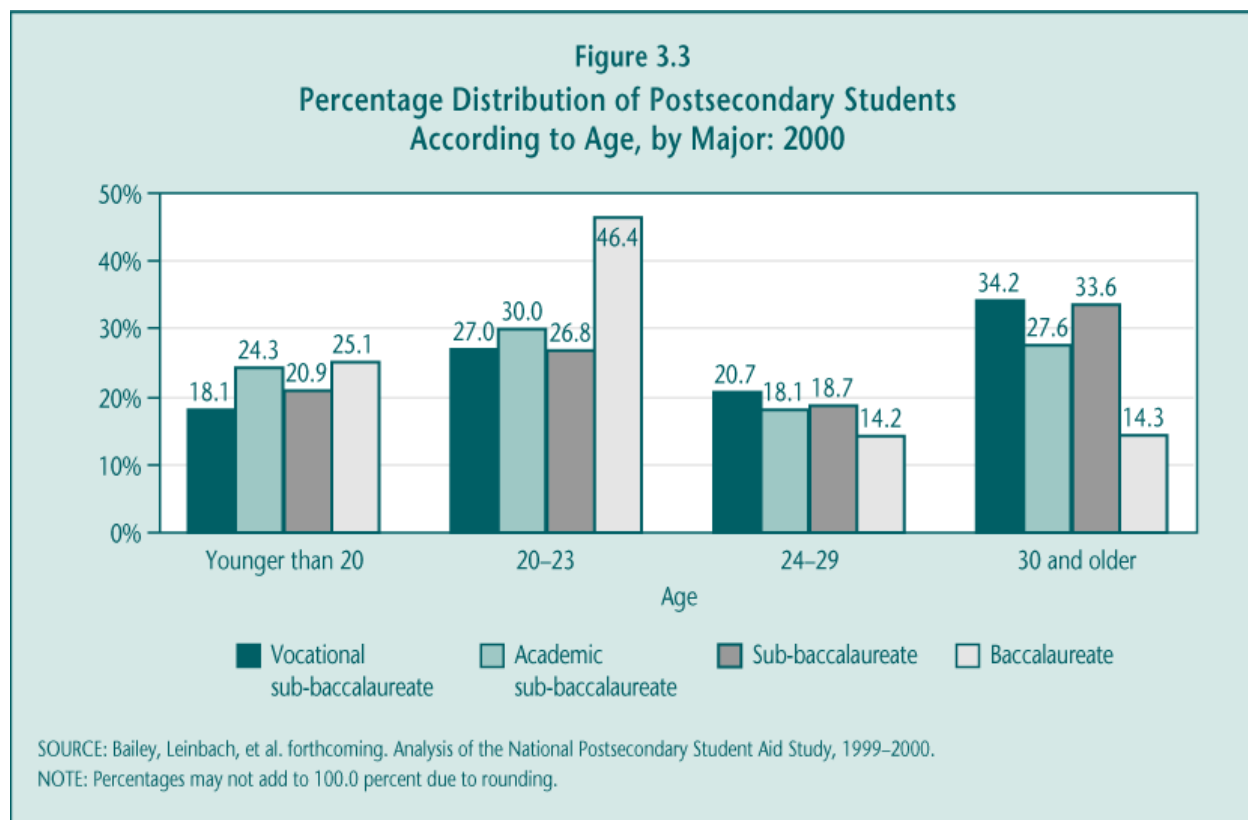
2. Characteristics of Participants: Special Populations and Other Students

Postsecondary vocational programs serve a diverse group of students. Participants include students of all ages as well as those identified as “special populations” in Perkins III (more detail on these students is provided below and in Chapter 2). If policymakers choose to reexamine the role of Perkins at the postsecondary level, it will be important to have an accurate picture of the kinds of students vocational programs serve.

Sub-baccalaureate students differ from students in bachelor degree programs in several important ways. They are older, somewhat more disadvantaged (both academically and economically), and more likely to pursue postsecondary education at any time (not just immediately following high school) and to pursue it with less intensity and continuity. In contrast, there are fewer differences between sub-baccalaureate students who choose vocational rather than academic programs.

Postsecondary vocational students are older than students in either baccalaureate or other sub-baccalaureate programs.

Postsecondary vocational programs serve both students who recently graduated from high school and older students who may have substantial work experience and prior postsecondary education (Figure 3.3). This diversity in students’ age, employment experiences, and educational backgrounds, as discussed later, has implications for the programs they seek and their goals in doing so.



► **Vocational programs serve younger and older students at similar rates.** More than half (54.9 percent) of students who declare a vocational major are age 24 and older, with students age 30 and older making up 34.2 percent of all vocational students.¹⁴ These figures leave a similar and sizable proportion of students (45.1 percent) who are younger and have made a recent transition into postsecondary vocational education from high school. Perhaps most important for federal policy, the younger students represent 56.3 percent¹⁵ of those who enrolled in degree or certificate programs, excluding participants who have returned for a second (or even third) credential.

• ¹⁴ By comparison, less than half (45.7 percent) of the sub-baccalaureate students enrolled in an academic program are age 24 and older, and only 27.6 percent are age 30 and older.

• ¹⁵ NAVE internal analyses of NPSAS 2000.

- ▶ ***Sub-baccalaureate participants are significantly older than baccalaureate participants.*** Combining both vocational and academic majors, just over half (52.3 percent) of sub-baccalaureate students are age 24 and older. This proportion stands in sharp contrast to that of baccalaureate students (28.5 percent) who are in that age category. Together, percentage distributions by age suggest that sub-baccalaureate institutions, and vocational programs in particular, serve a much broader population than do four-year colleges and universities.

Academically disadvantaged students are slightly more likely to enroll in vocational programs than in academic sub-baccalaureate programs.

Sub-baccalaureate students, overall, often enter college lacking the necessary academic skills to succeed (Coley 2000). For example, nearly two-thirds of students enrolled in community colleges take some remedial courses (Wirt et al. 2000, p. 152). These statistics signal educational needs that are particularly important for federal policy to address, because academic ability and prior academic preparation are among the strongest predictors of the rates at which students persist in and complete postsecondary education (Horn and Kojaku 2001). Postsecondary vocational students, at least those in for-credit courses and programs, may face some particular challenges.

- ▶ ***Younger postsecondary vocational students tend to enter programs with lower levels of academic achievement and preparation than their counterparts in academic programs.¹⁶*** Among younger sub-baccalaureate students, those who enter vocational programs are more likely (66.5 percent) than those who enter academic programs (56.2 percent) to have tested in the bottom half (lowest two quartiles) on a 12th-grade academic skills assessment.

• ¹⁶ Detailed high school preparation and academic test score data are available only for high school students (the National Education Longitudinal Study (NELS)) and therefore do not represent all postsecondary vocational students.

In addition, like their academic peers, vocational students in sub-baccalaureate programs have not typically taken the rigorous academic curriculum that is required for those who pursue baccalaureate programs. Although most sub-baccalaureate students met the “New Basics”¹⁷ standard for high school academic course taking—a total of 81.1 percent, including those who were enrolled in a high school vocational program (10.0 percent) and those who were not (71.1 percent)—postsecondary vocational majors were less likely (79.0 percent) than their academic counterparts (84.7 percent) to have met the standards. The proportions of both vocational and academic sub-baccalaureate students who met the “New Basics” requirements are well below that of their baccalaureate counterparts (94.5 percent) (Table 3.2).

Table 3.2
Percentage Distribution of Baccalaureate and Sub-baccalaureate Students, by High School Test Score Quartiles and Program: 1992

Program	Standardized Reading and Math Test Quartiles		High School Program ¹			
	Lowest Two Quartiles	Highest Two Quartiles	At Least New Basics ²	Both Vocational/ New Basics	Vocational	General
Baccalaureate	22.4	77.6	90.8	3.7	0.7	4.8
Sub-baccalaureate	61.2	38.9	71.1	10.0	5.1	13.9
Vocational	66.5	33.5	67.5	11.5	7.0	14.1
Academic	56.2	43.8	76.1	8.6	2.7	12.6

SOURCE: Bailey, Leinbach, et al. forthcoming. Analysis of the National Education Longitudinal Study, 1992.

¹Based on high school transcripts.

²The “New Basics” core curriculum is defined as four years of English or language arts and three years each of math, science, and social studies.

NOTE: Percentages may not add to 100.0 due to rounding.

• ¹⁷ The “New Basics” core curriculum is defined as four years of English or language arts and three years each of math, science, and social studies.

- ***An increasing percentage of postsecondary students with vocational majors already possess a postsecondary credential.*** Federal education policy has long promoted students' attainment of a postsecondary credential, although some have argued that such a goal is less relevant for federal vocational policy because so many participants already possess a credential. In fact, between 1996 and 2000, the percentage of students in sub-baccalaureate vocational programs who had already earned a degree (baccalaureate or associate) or certificate increased from 22.8 percent to 30.4 percent (Table 3.3). Sub-baccalaureate students in academic programs were less likely to already possess a postsecondary credential, and this pattern has held steady.

Table 3.3
Percentage of Sub-baccalaureate Students, by Type of Program
and Highest Prior Degree: 1996 and 2000 and 1995 and 1999

Type of Program	Year	Highest Prior Degree				Any Credential
		None	Certificate	Associate	Baccalaureate	
For-credit						
Vocational	1996	77.2	14.6	7.1	1.1	22.8
	2000	69.6	19.2	6.1	5.1	30.4
Academic	1996	80.5	8.8	8.1	2.7	19.5
	2000	76.8	11.5	4.8	6.8	23.2
Noncredit						
Job-related	1995	47.6	n/a	13.6	38.8	52.4
	1999	43.3	n/a	16.8	39.9	56.7

SOURCE: Bailey, Leinbach, et al. forthcoming. Analysis of the National Postsecondary Student Aid Study, 1995–1996 and 1999–2000, and the National Household Education Survey, 1995 and 1999.

n/a = not available or missing data.

Although just under a third of vocational students in credit programs already have postsecondary credentials, an increasing share have already earned a baccalaureate degree. In 1996, only 1.1 percent of postsecondary vocational program participants entered with a baccalaureate degree, but that figure rose to 5.1 percent in 2000. The proportion who entered with a certificate also increased, from 14.6 percent to 19.2 percent, and the certificate remains by far the most commonly held postsecondary credential among those pursuing for-credit vocational course work. In contrast, more than a third of those enrolled in noncredit courses at postsecondary institutions report their highest educational attainment as a baccalaureate degree or higher.¹⁸

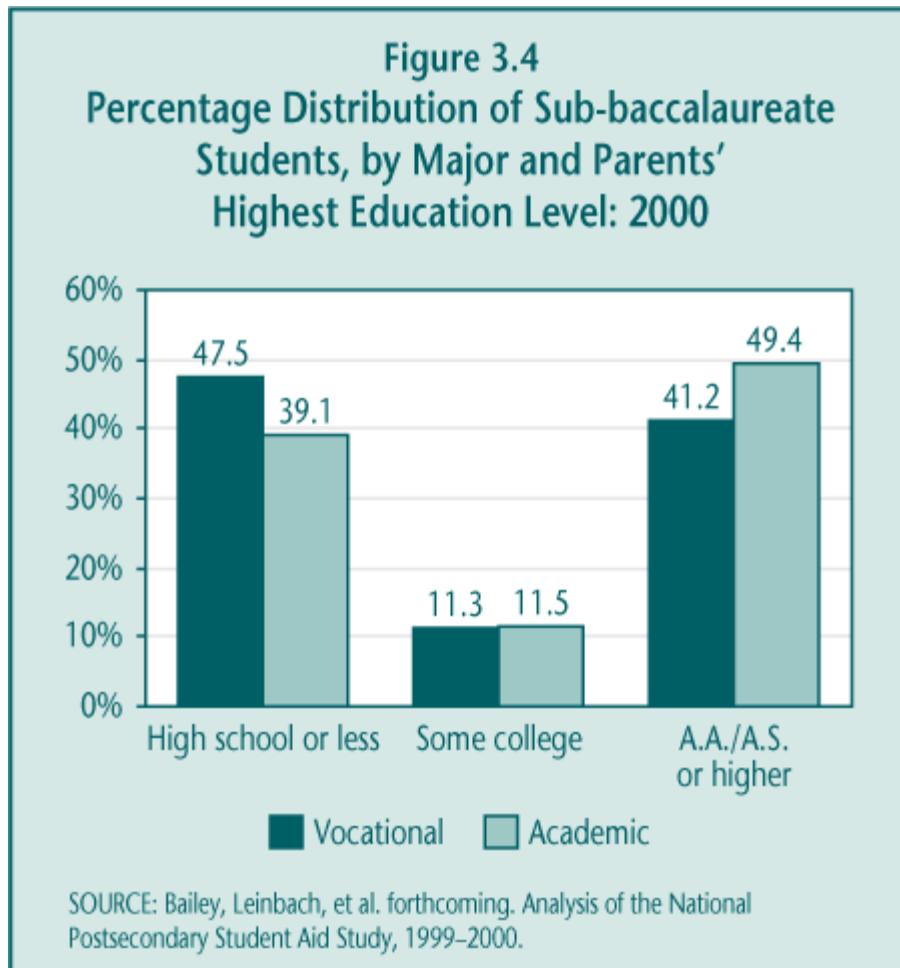
Vocational students are slightly more economically disadvantaged than academic sub-baccalaureate students.

Perkins III emphasizes serving students in special populations, such as those who are economically disadvantaged. Although financial aid is the primary legislative tool to support these students, by encouraging the provision of special support services, Perkins III may encourage low-income students to become successful participants in postsecondary vocational education.

- ▶ ***Vocational programs serve a somewhat higher share of economically disadvantaged students than do academic programs.*** Among dependent students—those who live with their parents—a greater proportion pursuing vocational programs (21.2 percent) than academic programs (15.8 percent) live in low-income households (earning less than \$20,000 a year). Among independent students, similar proportions of low-income students participate in vocational programs (43.5 percent) as in academic programs (44.6 percent) (Bailey, Leinbach, et al. forthcoming).

• ¹⁸ Analyses conducted by the American Association of Community Colleges (AACC) and ACT Inc. suggest that over a quarter of students who enrolled in noncredit courses at community colleges had already attained a bachelor's degree or higher (Phillippe and Valiga 2000).

- **Many vocational students are the first in their families to attend college.** Being the first in the family to attend college is highly associated with limited economic resources and significant barriers to postsecondary enrollment and success (Warburton, Bugarin, and Nuñez 2001). Vocational students are more likely than their academic counterparts at the sub-baccalaureate or baccalaureate levels to be first-generation postsecondary students (Figure 3.4). However, the proportion of first-generation students in postsecondary vocational programs has declined since 1996 (from 55.9 percent to 47.5 percent) (Silverberg et al. 2002).



Students from other special population groups are well-represented in vocational programs.

For nearly four decades, federal vocational policy has encouraged students from specific groups that Congress believed to be underserved or facing particular barriers to involvement in postsecondary education to participate in vocational programs and ultimately in the labor market. Whether due to these legislative provisions or simply individuals’ personal preferences and circumstances, in the 1990s many of the “special populations” were well-represented in sub-baccalaureate vocational programs as well as in academic programs.

As described in Chapter 2, these designated “special populations” include individuals with disabilities, individuals from economically disadvantaged families, individuals preparing for nontraditional training and employment, single parents, displaced homemakers, and individuals with other barriers to educational achievement, including limited-English proficiency. Nationally representative data on the postsecondary participation of each of these groups are limited and available only for those students taking for-credit courses.

- ▶ ***Vocational programs are more likely than academic programs to serve single parents.*** A higher share of sub-baccalaureate vocational students (19.7 percent) than academic students (12.0 percent) were single parents in 2000, a group that until the passage of Perkins III in 1998, was the focus of targeted programs with set-aside funding. Single parents represented an increasing share of vocational program participants in 2000, up from 16.1 percent in 1996 (Silverberg et al. 2002; Bailey, Leinbach, et al. forthcoming).
- ▶ ***Students with disabilities are about equally likely to be enrolled in a vocational program as in an academic program.*** Students with disabilities make up a small share of either baccalaureate or sub-baccalaureate students (less than 2 percent each). These students participated in vocational and academic sub-baccalaureate programs at similar rates in both 1996 and 2000.
- ▶ ***Enrollments in vocational programs preparing students for “high-wage”¹⁹ sub-baccalaureate occupations follow traditional patterns by gender, but neither males nor females are clearly advantaged.*** Females increasingly dominate enrollments in fields such as nursing and social work, while males continue to dominate enrollments in engineering, mechanics, and electronics. However, among other majors that prepare students for high-wage occupations (such as finance, mortuary science, and graphic illustration, industrial, interior, or product design), enrollment is fairly balanced by gender, and that balance has not changed substantially between 1996 and 2000 (Table 3.4).

• ¹⁹ “High-wage” occupations in 1998 were defined here as those with annual earnings of more than \$35,000.

Table 3.4
Percentage of Students Enrolled in Vocational Fields of Study Preparing Them for High-Wage Occupations,¹ by Gender: 1996 and 2000

Field of Study	1996		2000	
	Male	Female	Male	Female
Precision production (e.g., lithography, upholstery, metal work, drafting, welding)	96.3	3.7	94.2	5.9
Mechanics: Transportation	96.1	3.8	94.4	5.6
Electronics	93.1	6.9	87.6	12.5
Engineering technology	83.8	16.2	84.7	15.3
Communications technology	81.6	18.4	65.7	34.3
Computer and information sciences (hardware and software other than programming)	51.7	48.4	64.2	35.8
Computer programming	51.4	48.6	55.4	44.6
Business: Finance	49.2	50.9	52.7	47.3
Design (e.g., graphic illustration, industrial, interior, or product design)	47.3	52.7	44.2	55.8
Mortuary science	41.2	58.8	57.8	42.2
Data processing technology	30.4	69.6	n/a	n/a
Social work	28.0	72.0	11.4	88.6
Allied health: General and other	50.1	49.9	34.7	65.3
Allied health: Therapy and mental health	27.9	72.1	24.7	75.3
Allied health: Dental and medical technician	19.6	80.4	19.2	80.8
Nursing: Registered nurse	9.7	90.3	9.3	90.7
Nursing: Nurse assisting	4.3	96.7	11.6	88.4

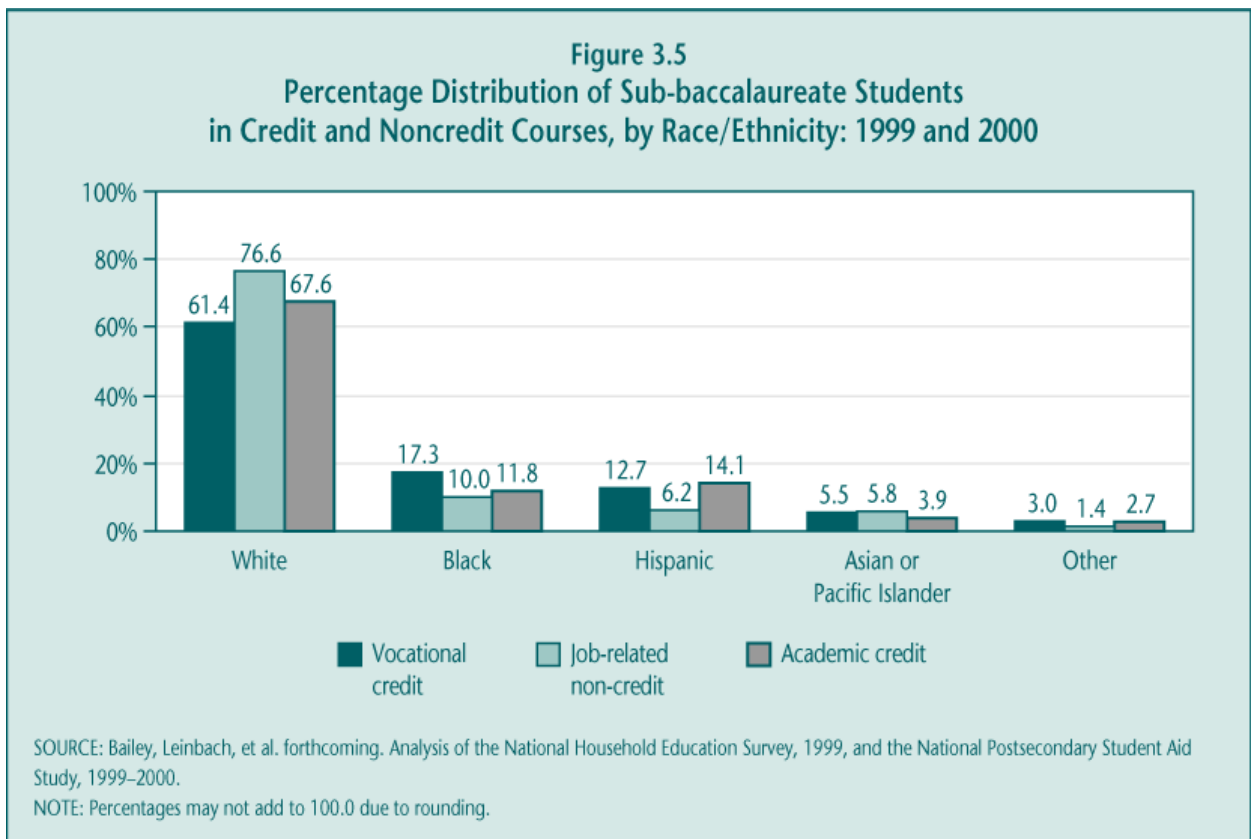
SOURCE: Bailey, Leinbach, et al. forthcoming. Analysis of the National Postsecondary Student Aid Study, 1995–1996 and 1999–2000.

¹“High-wage occupations” are defined here as those with average annual wages in 1998 that were greater than \$35,000.

n/a = not available or missing data.

In the rapidly growing and generally lucrative field of computer and information sciences (often referred to as information technology (IT)), female enrollments have not kept pace with male enrollments. By 2000, the share of males participating in IT programs was twice that of females. Further evidence from a survey of two-year colleges indicates that only about a fifth of those enrolled in some of the most popular IT certification programs (Novell, Cisco, or Microsoft programs) are female (Haimson and Van Noy forthcoming). Only a small fraction of community colleges (about 1 in 20) have programs in which the proportions of males and females enrolled are about equal.

- ***Sub-baccalaureate students are racially and ethnically diverse, although vocational programs enroll higher shares of students from racial and ethnic minority groups.*** A higher proportion of black students in 2000 chose to enroll in sub-baccalaureate vocational programs (17.3 percent) than in academic programs (11.8 percent). Hispanic students, however, were just as likely to pursue academic programs (14.1 percent) as vocational programs (12.7 percent), representing a slight relative shift among Hispanic students between 1999 and 2000 toward participation in vocational programs. Asian or Pacific Islander students and those in other racial groups (such as Native Americans) continued to be just as likely to enroll in academic as vocational sub-baccalaureate programs. Many of the noncredit vocational participants were white (76.6 percent), compared to 61.4 percent of vocational students in for-credit courses (Figure 3.5).



3. Goals and Pathways of Participants through Postsecondary Vocational Education

Many people, perhaps including policymakers, view “college participation” in a traditional way. They picture participants as 18-year-olds who attend college in the fall immediately following high school graduation and who continue to attend full-time until they obtain baccalaureate degrees approximately four years later. However, this description of college participation does not describe the majority of sub-baccalaureate students or of vocational students in particular. Vocational students typically delay entering college after high school graduation, are enrolled part-time and intermittently, and attend multiple postsecondary institutions. Each of these traits is a well-documented barrier to credential completion.

Postsecondary vocational students have primarily “nontraditional” attendance patterns.

Students participating in sub-baccalaureate programs—both academic and vocational—do not typically follow the attendance patterns often associated with “college” enrollment. “Nontraditional attendance”—part-time, at multiple institutions, with interruption—is common (Table 3.5) (Bailey, Leinbach, et al. forthcoming).

Table 3.5
Percentage of Postsecondary Students with Various Attendance Patterns, by Program: 2000

Attendance Patterns	Sub-baccalaureate		
	Vocational	Academic	Baccalaureate
Worked while enrolled	82.9	83.6	77.0
Interrupted participation ¹	30.0	39.8	25.2
Full-time, full-year participation	27.9	30.5	61.8
Delayed entry ²	52.9	42.2	22.4

SOURCE: Bailey, Leinbach, et al. forthcoming. Analysis of the Beginning Postsecondary Students Longitudinal Study, 1989–1994, and the National Education Longitudinal Study, 1988–2000.

¹“Interrupted participation” is defined here as any interruption in postsecondary participation within the five years of data collection. The numbers here are derived from data in the Beginning Postsecondary Students Longitudinal Study, 1989–1994.

²“Delayed entry” adheres to the National Postsecondary Student Aid Study definition, which includes any student who either enrolls in postsecondary education a year or more after high school graduation or is a General Educational Development (GED) recipient prior to enrollment.

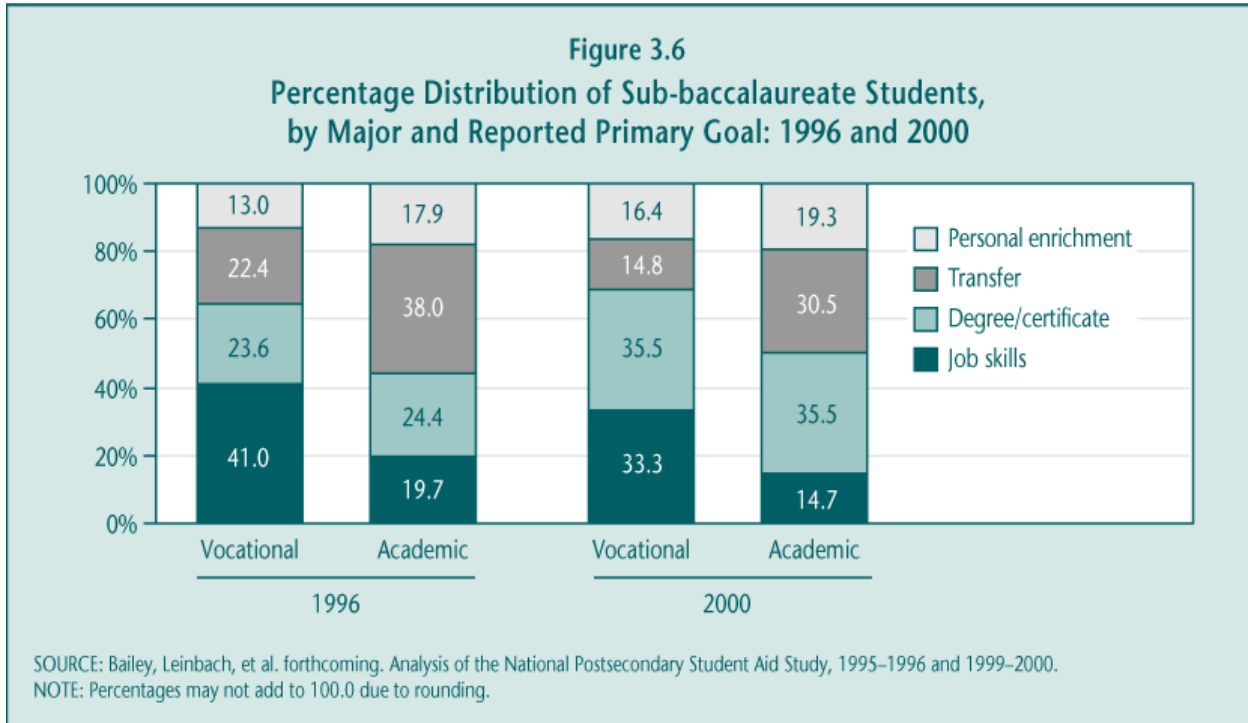
- ▶ ***Most postsecondary students, including those in vocational programs, work while enrolled; half of sub-baccalaureate students consider themselves workers first, and students second.*** A large proportion of students—about four out of five students at any level (baccalaureate or sub-baccalaureate) or major (vocational or academic)—are employed while in postsecondary education. Baccalaureate students describe themselves as primarily students (over 80 percent) and thus are likely working to defray expenses. In contrast, just over half of the employed sub-baccalaureate students describe themselves as workers who are studying.
- ▶ ***Increasingly vocational as well as academic students interrupt their postsecondary education.*** About a third of vocational (30.0 percent) and 39.8 percent of academic sub-baccalaureate students interrupt their postsecondary attendance at least once during a five-year period. Furthermore, among participants younger than age 24, the rate of interruption has doubled since the 1980s (from 15.9 percent in 1982 to 33.3 percent in 1990).
- ▶ ***Delayed entry into postsecondary sub-baccalaureate education is common, as is part-time attendance, often in multiple institutions.*** Just over half of vocational program participants (52.9 percent) begin postsecondary education more than a year after graduation from high school. This delayed entry is more likely among vocational (52.9 percent) than academic (42.2 percent) sub-baccalaureate students, but the likelihood of doing so is even greater for baccalaureate than sub-baccalaureate students (22.4 percent and 49.8 percent, respectively). Just over one-fourth of either vocational or academic students in sub-baccalaureate programs attend full-time, full-year, compared to 61.8 percent of baccalaureate participants. Recent analyses of traditional age students (ages 18 to 24) indicate that nearly half of those who started in community colleges actually attended more than one institution as an undergraduate (Adelman 2003).

On the one hand, the ability of students to attend postsecondary institutions part-time when they can and at the most convenient campus are all hallmarks of sub-baccalaureate institutions. On the other hand, these attendance patterns raise concerns about the labor market prospects for sub-baccalaureate students, including those in vocational programs, because research indicates a relationship between nontraditional enrollment patterns and lower earnings (Scott and Bernhardt 1999; Light 1995). To the extent that completion is an important factor in this relationship, federal policy may wish to continue to emphasize completion, whether defined as “credential attainment” (as is currently promoted through the accountability provisions) or something else.

Objectives of postsecondary vocational students vary, but most report seeking a credential.

Given the diversity of those who participate in sub-baccalaureate vocational education—in age, employment status, income, and other characteristics—it is not surprising that vocational courses serve a variety of purposes. Recent surveys asked students to report the primary reason they enrolled in postsecondary course work, requesting them to choose from several fixed response

categories: job skills, degree or certificate completion, transfer (to a higher-level educational institution), or personal enrichment.²⁰ Understanding the variation in students' goals and expectations is useful for judging the success of both students and institutions (Figure 3.6) (Bailey, Leinbach, et al. forthcoming).



► **Obtaining a sub-baccalaureate credential or transferring is a common objective for vocational students but less so for academic students.** Just over half of all those enrolled in postsecondary vocational programs in 2000 reported wanting to earn a degree or certificate (35.5 percent) or to transfer (14.8 percent). This pattern represents a change from 1996, with less emphasis in 2000 on transferring (down from 22.4 percent) and more emphasis on attaining a sub-baccalaureate credential (up from 23.6 percent) as a primary goal.²¹ Younger students are most likely to be seeking these objectives: in 2000 most vocational majors younger than age 20 reported earning a credential (33.9 percent) or transferring to further education (26.7 percent) as their primary reason for participating.

The goal of obtaining a degree or certificate or of transferring to another institution is even more common among students in sub-baccalaureate academic majors than in vocational majors (a total of 66.0 percent compared to 50.3 percent). The biggest difference by major is that fewer vocational students (14.8 percent) than academic students (30.5 percent) cite transferring as their primary reason for enrolling in postsecondary vocational programs. These differences in objectives are consistent with differences in students' stated

• ²⁰ Even though students were asked to select a primary reason, these reasons may not be mutually exclusive.
• ²¹ Academic majors report similar shifts in objectives.

educational aspirations. Vocational students are less likely (74.0 percent) than academic students (88.4 percent) to expect to complete baccalaureate-level or higher degrees. Instead, those who enroll in postsecondary vocational programs more frequently aspire to earn certificates or associate degrees. Between 1996 and 2000, there was no statistically significant shift in the aspirations of either vocational or academic participants.

- ▶ ***Many students enrolled in sub-baccalaureate vocational programs want to increase their job skills.*** Among those choosing a vocational major, a significant share (33.3 percent) do so to enhance their job skills, probably with the intention of obtaining better employment. In contrast, only 14.7 percent of academic students cite improving their job skills as their primary reason for enrolling.

Older vocational students are most likely to pursue this goal. Still, less than half (41.6 percent) of those age 30 and older cite increasing their job skills as their primary reason for participating in vocational courses and programs. For many older students (39.7 percent) obtaining a credential is still important (Bailey, Leinbach, et al. forthcoming).

- ▶ ***Some vocational students participate for enrichment purposes.*** Far fewer students, both vocational (16.4 percent) and academic (19.3 percent), cite personal enrichment as their primary reason for enrolling in postsecondary course work.

C. Implementation: Program Quality and Improvement Efforts

Perkins III provides funding to improve the quality of vocational programs at both the secondary and postsecondary levels and offers a set of strategies intended to aid in that progress. However, the effects of the law at the postsecondary level are difficult to assess for several reasons. First, postsecondary institutions are historically autonomous—from each other and from state agencies—yet Perkins policy is intended to be promoted through state efforts. Second, Perkins funds represent a very small share—about 2 percent²²—of these institutions’ yearly expenditures. Finally, at the postsecondary level, where participants pay to receive their education and training, vocational programs are most likely driven by rapidly changing labor market needs. Postsecondary institutions’ response to the challenge of providing up-to-date technical training and education may be consistent with federal policy but not largely affected by it.

Still it is worth examining the prevalence of Perkins program improvement strategies.²³ Among the most relevant for postsecondary programs are the integration of academic and vocational instruction, links between secondary and postsecondary institutions, employer involvement, education standards, upgrading technology, and assistance for special populations. Professional development and other efforts to promote teacher quality are also important and frequently supported with Perkins funds.

• ²² See Chapter 5 for a discussion of the 2 percent estimate.

• ²³ See Chapter 2 for a more detailed discussion of these practices and how the law promotes them.

Employer involvement takes many forms, largely influenced by labor market trends.

Employer involvement in postsecondary vocational programs is considered particularly important because it helps ensure that the content and focus of these programs are relevant to the labor markets they serve. Unlike high school vocational students, many of whom will pursue postsecondary education and eventually jobs outside their local areas, community college students are likely to work and live in their communities. Therefore, most postsecondary vocational institutions try to pursue strategies that are consistent with what will be rewarded in their local labor markets.

- ▶ ***Employer involvement in community college advisory committees may be growing.*** Industry- or community-based advisory committees, while not new to these institutions, appear to be gaining influence. The proportion of employers reporting that they participated in these committees at the secondary or postsecondary level increased from 12.4 percent in 1993 (Boesel et al. 1994b) to 14.1 percent in 2000,²⁴ although evidence from case studies suggests that much of the increase has been at community colleges. Advisory committees actively contribute to vocational programs by providing advice on individual courses and programs as well as offering off-campus learning experiences for students and faculty. This level of employer involvement is in contrast to that provided by previous advisory committees that only met once or twice a year and had little influence over program design or curricular content.
- ▶ ***Employers increasingly use community colleges for customized contract training.*** As part of a growing emphasis on economic and workforce development, community colleges have increased their customized contract training. The proportion of employers reporting their use of such training increased significantly during the 1990s, from 9.9 percent in 1993 (Boesel et al. 1994b) to 17.2 percent in 2000. Although customized contract training is often distinct from postsecondary vocational education programs, because training is conducted at another part of campus, uses separate funds, and is often taught by a different faculty, the general trend may be indicative of a broader effort by community colleges to meet local labor market needs.
- ▶ ***Employer collaboration on curriculum is geared more toward local needs than national skill standards.*** According to case studies, community college curriculum is shaped mostly by a determination of which skills contribute to employability in the local area (Hudis, Blakely, and Bugarin forthcoming). National skill standards matter, but only if they have value in the marketplace. So, while community colleges have been quick to create course work that complements information technology networking certifications that are nationally recognized, such as Microsoft's or Cisco's, the colleges have been much less

• ²⁴ NAVE internal analyses of the National Employer Survey, 2001.

likely to organize curricula around Microsoft’s Microsoft Office User Specialist (MOUS) certification program, a credential that lacks employer support.

Upgrading equipment remains a focus of community college efforts, but the contribution of Perkins is proportionately less than it is at the secondary level.

“Developing, improving or expanding the use of technology in vocational and technical education” is a required activity for states and postsecondary institutions that receive federal vocational funds (Section 135(b)). Given the pervasiveness of new technologies in the workplace, there is constant need for technological resources and technology instruction in community colleges and adult vocational schools. Employers increasingly demand technological skills and expect graduates of sub-baccalaureate courses and programs to have knowledge of and facility with these technologies (Hudis, Blakely, and Bugarin forthcoming). Meeting these demands and expectations, though, is a primary mission of these colleges.

- ▶ ***Perkins funds are a relatively small contribution to postsecondary equipment budgets.*** Postsecondary vocational institutions, in contrast to vocational programs at the secondary level, typically have a substantial technology budget. Therefore, ongoing equipment needs are largely funded by private donations, business partners, state grants, and college revenues, while state and local Perkins funds are simply additional but not central contributions. In addition, community colleges combine Perkins funds with other federal grants to train faculty to use the new equipment.
- ▶ ***Some states use Perkins funds to support distance learning or development activities such as planning for emerging occupational areas.*** For example, North Carolina has made distance learning a priority in its community colleges, reaching more than 12,500 students via the Internet, satellite transmission, and teleconferencing. In Michigan, some Perkins state leadership funds are used to fund Emerging Technologies Consortium Grants, which are intended to encourage vocational programs to plan for new occupations in high-technology or other emerging occupational areas.

Support for special populations generally continues.

Previous vocational legislation placed special emphasis on serving particular groups of students known as “special populations.” In Perkins III, Congress continued this focus but through accountability provisions rather than funding set-asides.²⁵ The emphasis on these groups persists among postsecondary institutions, which often refer to Perkins funds as their “special populations” money (see Chapter 5 for more information on funding and accountability).

• ²⁵ Perkins II required that at least 3 percent be set aside from the basic state grant for programs and services to eliminate gender bias as well as at least 7 percent set aside for programs and services to meet the needs of single parents, displaced homemakers, and single pregnant women. These set-asides were eliminated in the subsequent reauthorization in 1998 (Perkins III) and replaced by accountability provisions that require states to report progress related to educational and employment outcomes for these groups.

Preliminary evidence suggests that, in general, the goal of serving special populations has been institutionalized. At the local level, where most activities supporting special populations take place, many programs continue to serve their special needs, and these activities have not changed much even with the elimination of the set-aside funding streams under Perkins III (Hudis, Blakely, and Bugarin forthcoming).

- ▶ ***Support services for special populations funded by Perkins cover a broad range of activities at both the local and state levels.*** Most postsecondary institutions assist existing special population students rather than conduct outreach, because they view access as best provided through student aid.²⁶ Both states and local institutions also provide professional development support and activities for faculty serving special population students. A primary focus of local institutions is to help students successfully complete courses and programs through basic academic support services, such as tutoring, note-taking services, testing, and the provision of interpreters. Additional services—such as childcare and transportation—are more focused on the needs of particular populations.
- ▶ ***Postsecondary institutions provide services to help special population students make the transition into employment.*** These services, typical of community colleges, include career counseling, job seminars, and skill-training programs, but they are often tailored to meet the special needs of particular groups and funded at least in part by Perkins. Florida and Texas have developed accountability systems to make sure that community colleges are placing special population students in good jobs. At the local level, for example, a North Carolina community college offers classes that give students a broad orientation to the labor market to meet the needs of older students who are making transitions into the workforce for the first time (e.g., students on welfare, displaced homemakers, and single mothers) (Hudis, Blakely, and Bugarin forthcoming).
- ▶ ***Elimination of set-asides appears to have made services available to a broader population.*** Some local practitioners indicate that, because of the new legislation, special vocational programs and services can now serve GED students, economically disadvantaged students, and individuals with limited English proficiency, in addition to single parents or single pregnant women and individuals preparing for nontraditional employment.

Other program improvement strategies emphasized in the law are not emphasized at the postsecondary level.

In addition to the strategies discussed above, Perkins promotes linkages between secondary and postsecondary education and the use of curriculum integration. However, Tech-Prep and articulation agreements between high schools and community colleges, in addition to integrating

• ²⁶ It should be noted, though, that some colleges support access to financial aid by providing services—funded by Perkins—to help special population students navigate the complex student financial aid system.

academic and vocational curricula, are largely viewed by postsecondary staff as high school programs and strategies designed to raise expectations among secondary vocational students.

- ▶ ***Limited linkages exist between secondary and postsecondary education.*** Community colleges have played active roles in developing and updating articulation agreements as part of Tech-Prep, but few of them have actually changed their offerings or activities as a result of this initiative (see Chapter 4). Other types of coordination, such as outreach activities—e.g., bringing students to campus and arranging meetings between college and high school personnel to discuss student test scores and required preparation for college—are generally low intensity (Hudis, Blakely, and Bugarin forthcoming). Perkins-funded state leadership spending at the postsecondary level suggests that secondary-postsecondary linkages (7.7 percent of these funds nationally) are not as high a priority as other activities (e.g., more than 15 percent of state leadership funds are used for each of these efforts: upgrading technology, integration, and data reporting; White et al. forthcoming).
- ▶ ***Dual enrollment is so far a limited, but promising, strategy for linking secondary and postsecondary vocational education.*** Although neither widely taken advantage of by high school students nor exclusively or specifically designed for students in vocational programs, this strategy is increasing in popularity (Bailey, Hughes, and Karp 2002). High school students can enroll in courses at community colleges that allow them to earn both secondary and postsecondary credit. As a result, they can have a wider selection of courses and learn more about community college life and course expectations.
- ▶ ***Curriculum integration remains relatively rare at the postsecondary level, despite continued emphasis in the law and reported state activities.*** Certainly, some states and community colleges are using Perkins funds for faculty workshops on integrating curriculum. Nationally, strengthening integration of academic and vocational content is one of the top two expenditure categories of state leadership funds (15.3 percent). For example, Michigan awarded grants to produce new curricula, and Florida is developing new certificate programs that require an integrated course curriculum. One Michigan grant, for example, brought together 80 faculty members from 15 community colleges to work on producing integrated curricula that they could use in classrooms. California has also used state leadership funds to support statewide conferences and workshops on curriculum integration. However, these efforts have not translated into widespread action. According to site visits, most community colleges and their faculties lack the curriculum materials or professional development opportunities to achieve meaningful integration (Hudis, Blakely, and Bugarin forthcoming).

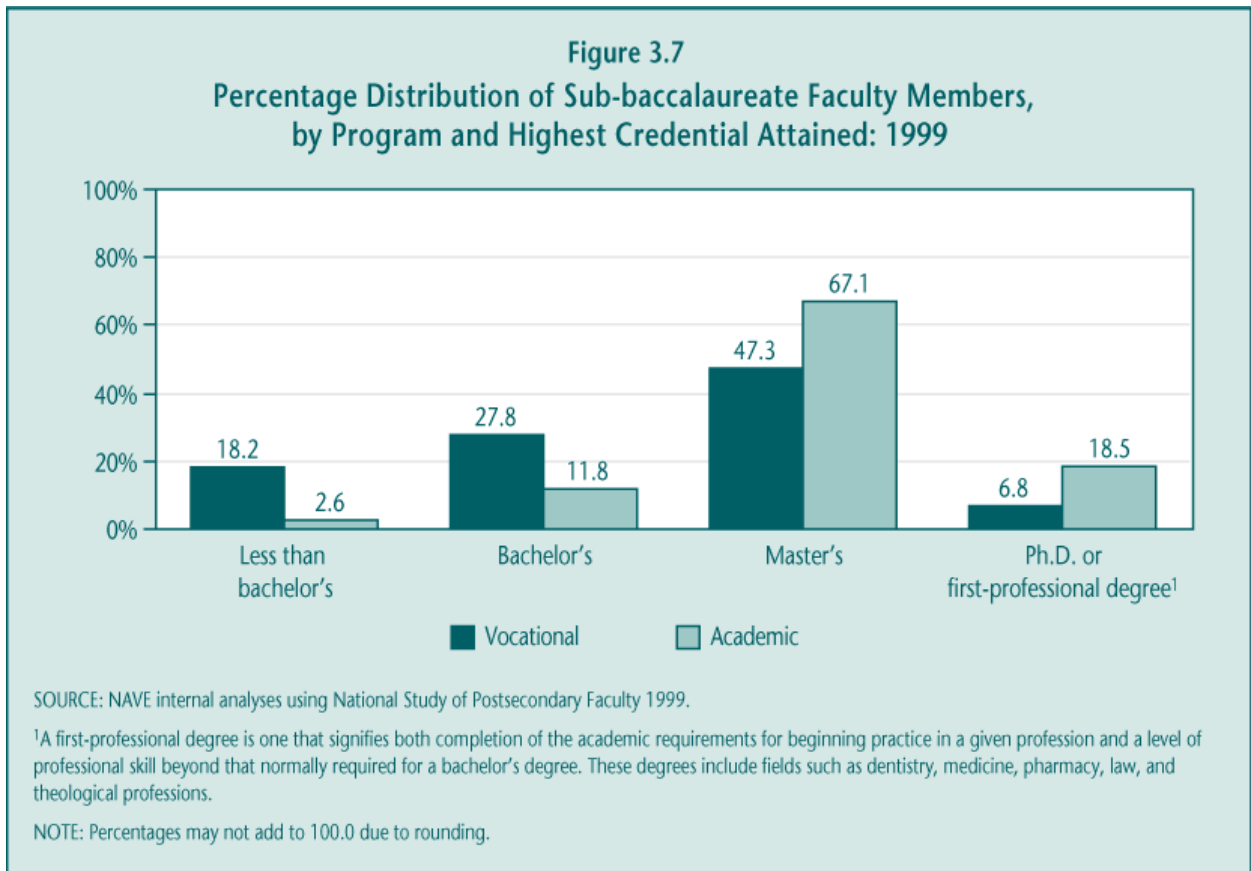
Improving the quality of vocational faculty, a goal that Perkins supports to some extent, remains a challenge.

Perkins III encourages professional development as a way to improve teacher quality. States, in particular, but also individual postsecondary institutions, at times combine Perkins funds with

workforce development and general education funds to compensate teachers for time and expenses spent at professional meetings, to offer workshops and conferences, and to support teacher externships. However, many of the most crucial issues involve hiring and retaining faculty with the appropriate mix of skills, and doing so in a way that is responsive to labor market demands. It is less clear what kind of role Perkins can assume in those efforts.

- ▶ ***Some individual institutions and states use Perkins funds to offer professional development activities to promote technical and teaching skills.*** These efforts are limited and often primarily include state-sponsored conferences covering a wide array of professional development issues. Few faculty members from any single institution appear to participate, and such once-a-year professional development activities are often considered fairly ineffective. In short, there is little evidence of systematic professional development efforts on behalf of vocational faculties (Hudis, Blakely, and Bugarin forthcoming).

► ***Sub-baccalaureate vocational faculties have lower academic credentials than academic faculties.*** In 1999, a significant share of vocational faculty members (46.0 percent), compared to their academic peers (14.4 percent), had bachelors’ degrees or less. Academic faculty members were far more likely than vocational faculty members to have masters’ degrees, Ph.D.s, or first-professional degrees²⁷ (85.6 percent compared to 54.1 percent).²⁸ These percentages have remained unchanged between 1993 and 1999 (Figure 3.7).²⁹



• ²⁷ A first-professional degree is one that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. These degrees include fields such as dentistry, medicine, pharmacy, law, and theological professions.

• ²⁸ The proportion of faculty with a bachelor's degree or less is most characteristic of faculty in the trade and industry field (65.8 percent). However, the proportion without advanced degrees is still significant in other vocational fields, ranging from a low of 27.3 percent in business to a high of 43.0 percent in health. Part-time vocational faculty are also the most likely to be without advanced degrees (47.6 percent among part-time and 33.7 percent among full-time faculty) (Internal NAVE analyses of NSOPF 1999).

• ²⁹ In 1993, the proportion of vocational faculty members with a bachelor's or less is 46.5 percent and 19.7 percent for academic faculty members. Similarly, the proportion of vocational instructors with a master's as their highest credential attained is 45.6 percent and 64.8 percent among academic faculty members (Internal NAVE analyses of NSOPF 1993).

In vocational fields, a conflict exists between the need for academic skills and the need for hands-on technical skills for high-quality teaching. Industry skill certifications may be equally or even more important for instructors than academic credentials, particularly in fields such as information technology and automotive repair. On-the-job experience or teaching while employed are important ways for faculty to keep technical skills current, especially because local institutions seem to have few systems in place to support ongoing professional development. However, in an environment of increasing academic sophistication in many vocational fields, academic qualifications may become more important.

- ▶ ***Many vocational instructors, like their academic counterparts, teach part-time, have multiple jobs, and may work in jobs related to the courses they teach.***³⁰ In 1999, the majority of vocational (60.0 percent) and academic (66.3 percent) sub-baccalaureate faculty members taught part-time. These proportions have not changed since 1993. Among part-time vocational instructors, most reported a preference for teaching part-time (80.7 percent).

Teaching part-time is often thought to be an indicator of lower teacher quality, reflecting poorer qualifications or more tenuous connections to the sub-baccalaureate institution. In the case of vocational education, though, working part-time may allow vocational faculty members to remain employed in jobs related to the courses they teach. In fact, the majority of vocational faculty reported having another job (71.1 percent), and most said they work outside of postsecondary institutions (92.6 percent). Although information about these other jobs is limited, many may be employed in occupations in their teaching field (e.g., 49.4 percent of health faculty worked in a hospital as their additional job).

- ▶ ***Changes in faculty composition and student enrollment are consistent with labor market trends—growth in information technology and declines in business, engineering, and home economics.*** Two-year institutions, and community colleges in particular, are often thought to be especially adept at adjusting their offerings in response to fluctuating enrollment shifts, which often reflect changing labor market trends. The ability to hire and retain faculty in sufficient numbers, particularly in high-demand fields, to maintain reasonable student-to-faculty ratios is crucial to maintaining the quality of postsecondary vocational education.

• ³⁰ NAVE internal analyses based on National Study of Postsecondary Faculty (NSOPF), 1993 and 1999.

Data from the National Postsecondary Student Aid Study (NPSAS) and National Study of Postsecondary Faculty (NSOPF) confirm a link between changes in the percentage of faculty who teach and students who enroll in two-year institutions by vocational field (Table 3.6). Since 1993, the rates of enrollment in information technology (IT) and trade and industry have increased, as have the proportions of vocational faculty teaching IT and trade and industry courses, presumably in response to increases in enrollment. Between 1993 and 1999, vocational enrollments shifted away from business, home economics, and engineering—most likely reflecting reduced demand for occupations requiring such training. Correspondingly, during that period, the percentage of vocational faculty teaching in each of these three fields declined. In other fields—health and agriculture—no significant changes were observed in the proportions of students and faculty in two-year institutions.

Table 3.6
Percentage of Students and Percentage of Faculty in Two-Year Institutions,
by Vocational Field: Selected Years 1990–2000

Vocational Field	Year	Percentage of Students	Percentage of Faculty
Agriculture	1990	0.8	
	1993	3.0	1.7
	1996	2.0	
	1999–2000	1.0	1.9
Business	1990	41.0	
	1993	35.6	29.1
	1996	32.9	
	1999–2000	32.0	24.9
Health	1990	25.4	
	1993	32.1	30.8
	1996	33.2	
	1999–2000	25.9	31.5
Home economics	1990	4.0	
	1993	1.7	2.0
	1996	3.6	
	1999–2000	2.2	0.6
Technical education	1990	24.2	
	1993	20.1	23.3
	1996	18.4	
	1999–2000	25.4	28.0
Information technology	1990	6.8	
	1993	9.5	12.2
	1996	6.1	
	1999–2000	16.7	18.8
Engineering	1990	13.3	
	1993	8.9	8.5
	1996	11.6	
	1999–2000	6.3	6.6
Trade and industry	1990	4.7	
	1993	7.5	13.1
	1996	10.0	
	1999–2000	13.5	13.2

SOURCE: Internal NAVE analyses using NPSAS:1990, 1993, 1996, and 2000 and NSOPF:1993 and 1999.

- ▶ ***The proportion of vocational faculty members at two-year institutions declined, and academic faculty members increased during the 1990s.*** Although both academic and vocational enrollments in community colleges leveled off in the 1990s after a decade of growth,³¹ the number and proportion of vocational faculty members at two-year institutions declined by 8 percent (from 98,741 to 90,771), while the proportion and number of academic instructors increased by 20 percent (from 160,831 to 193,333).³² There are several potential explanations for this shift in resources. First, there may have been a change toward having academic faculty teach the academic course work required in vocational programs rather than offering these courses as “applied” academic courses taught by vocational faculty. Second, in recent years, some institutions have paid more attention to providing students with options to transfer to a baccalaureate degree program, which may also have increased academic offerings and thus faculty. Finally, an increase in academic faculty may reflect a growing need for faculty to teach developmental education courses.

It is hard to gauge the implications of these changes. On the one hand, the quality and rigor of academic courses may be superior and thus more beneficial to vocational students. On the other hand, if such courses are less likely to be connected to particular vocational learning requirements, then it is unclear whether vocational students, who often have not been successful in traditional academic course work, will be able to benefit from the shift in emphasis.

D. Coordination with the Workforce Investment Act

Coordinating vocational programs with workforce development efforts is a major issue at the postsecondary level. When Congress enacted both the Perkins III and the Workforce Investment (WIA) Acts in 1998, it responded to GAO reports that multiple job training programs created an excessive administrative burden upon states and discouraged individual access to services (U.S. General Accounting Office 1994a, 1994b, 1994c, 2000). Many policymakers argued that the system—and, in particular, federal funding—needed streamlining, and Congress considered combining the two laws. In the end, however, Congress passed separate acts with provisions to encourage coordination between activities funded under WIA Title I and Perkins III. The extent of that coordination, even at this early stage of implementation, is worth examining.³³

Several features of WIA can affect postsecondary vocational education.

• ³¹ From 1990 to 1993, enrollments at two-year institutions spiked, most likely in response to the 1991 recession. Corresponding to the economic recovery, enrollment figures returned to 1990 levels, with no statistically significant difference between enrollments in 1990, 1996, or 2000.

• ³² NAVE internal analyses using NSOPF: 1993 and 1999.

• ³³ Given that the Workforce Investment Act and the reauthorization of Perkins allow for a transition year, the findings discussed in this report are early indicators of the implementation of the two laws.

- ▶ **State Workforce Investment Boards:** These boards assist in the development of the WIA state plans, and the law includes the chief executive officers from community colleges among the list of required members (Section 111(b)).
- ▶ **One-Stop Career Centers:** Governed by Workforce Investment Boards (WIBs) at both the state and local levels, these centers are expected to provide information to job seekers and access to a broad array of employment and training services. Although in some states and localities postsecondary vocational institutions were involved with past workforce development efforts under the old Job Training Partnership Act (JTPA), WIA requires that these institutions be included in the WIBs. Including them provides new opportunities for previously nonparticipating postsecondary institutions to become involved with workforce development. Their involvement as one of the required partners in One-Stop centers is an indicator that at least some coordination should exist between postsecondary vocational education and workforce development systems.
- ▶ **Available services:** Up to three possible types of services are now provided sequentially, depending on individual needs and eligibility: (1) core services—primarily information on job options—are available to all individuals; (2) intensive services, for those needing more assistance, include individualized assessments, case management services, and short-term prevocational services such as basic adult education courses; and (3) training services are primarily offered to income-eligible individuals for whom the two previous services are not sufficient in helping them obtain employment.³⁴ This sequencing of services places greater emphasis on job placement, in contrast to the past emphasis on increasing an individual's human capital through job training. Individuals eligible for job training are provided Individual Training Accounts (ITAs) that can be used to purchase training from any eligible provider. This practice contrasts with the past one of offering individuals prepaid negotiated training services. It is not yet clear whether this new structure is more or less conducive to the involvement of postsecondary vocational education in workforce development.

Perkins institutions have not played a major role in WIA decision making and management in most states.

In the first few years since the passage of WIA, states have primarily directed their attention to establishing organizational structures to implement the act—e.g., state and local workforce investment boards and One-Stop centers. The role that postsecondary vocational institutions played in these decisions is likely to affect their participation in future workforce development activities.

• ³⁴ WIA requires states and local programs to give priority to low-income individuals for intensive training services when funds are limited (Sec. 134(d)(4)E) of WIA).

- ▶ ***Postsecondary vocational institutions generally were not involved in early efforts to establish the infrastructure of One-Stop Career Centers.*** As required in the law, states did include representatives from community colleges to serve in the new WIBs. However, in most states and localities, past relationships formed under JTPA determined the organization and governance for the workforce development system under WIA. An early Department of Labor report (D’Amico et al. 2001) indicates that half of the states simply adopted their existing state workforce investment board, although most local boards were more likely to be newly formed.

In states where community colleges historically had played a significant role in either JTPA or economic development (e.g., North Carolina and Florida), the relationship generally has continued and made seamless service delivery systems more likely, although the extent of local participation even in these states is idiosyncratic. In most cases, though, community colleges and the postsecondary education system have played a more limited role in setting up the workforce development system and its rules of governance. For example, the Massachusetts State Board of Higher Education that oversees community colleges was not included among the partner organizations that established the workforce development system. Similarly, in California, the Community College Chancellor’s Office envisions participating in the system only after it is implemented (Hudis, Blakely, and Bugarin forthcoming).

- ▶ ***Most One-Stop centers are operated without much involvement from postsecondary institutions.*** Most states are neutral about having community colleges become managers of and service providers for One-Stop centers. But some have discouraged that participation. Despite initial plans for two-year colleges to be given major responsibilities in planning the new system, Texas curtailed postsecondary involvement by prohibiting operators of local One-Stop centers from providing both core and training services; thus, if two-year colleges want to provide training, they cannot operate a One-Stop center. In Massachusetts, none of the centers are operated by community colleges. Although the state established a competitive process to select One-Stop center operators, none of the 15 community college and 16 WIB service delivery areas overlap, perhaps accounting for the colleges’ limited participation. In contrast, in both Florida and North Carolina, where community colleges are key local participants in the workforce system, these institutions are well-represented among those operating One-Stop centers; for example, in 2000 a quarter of the centers in North Carolina were located on community college campuses, and close to 20 percent of Florida’s centers were administrated or operated by community colleges (Hudis, Blakely, and Bugarin forthcoming).

Involvement in a One-Stop partnership can be important because it can lead to many referrals for training, although that has not occurred in most communities. The services available at One-Stop centers allow individuals to find out about various educational options. Even if individuals do not use individual training accounts, they may pursue

postsecondary education using other resources such as Pell grants and student loans (King 2002).

- ▶ ***Historical participation in training programs influences the extent of WIA participation.*** The strongest predictor of a community college's participation in WIA is its previous involvement in JTPA-funded training activities. Postsecondary institutions that were active and major providers of services under JTPA generally have continued to play important roles under WIA. For example, a Massachusetts community college that was a significant training provider under JTPA continues to work closely with the workforce system despite the fact that a smaller number of students are served under WIA. Even in states with systems favorable to community colleges, such as Florida and North Carolina, there appears to be a strong correlation between current participation in WIA and past participation in JTPA (Hudis, Blakely, and Bugarin forthcoming).

Involvement of Perkins institutions in providing WIA services has been limited.

Postsecondary vocational education generally has yet to become actively involved in providing WIA services. Because community colleges primarily provide education and training, and early WIA implementation emphasized job search and other core services, community college participation and interest in WIA activities have been limited.³⁵

• ³⁵ Florida and, to a lesser extent, North Carolina are again exceptions. In both states, community colleges either played a central role in workforce development (under JTPA) or economic development. Presumably because of these ties, community colleges in these states tended to be involved in WIA beyond training services (e.g., they run One-Stop centers and have greater involvement in state and local WIBs).

► **Early emphasis on core services favored the involvement of entities other than vocational postsecondary institutions.** Core services—providing information about job opportunities and available support services—are not a primary part of the mission of community colleges. Even intensive services (e.g., aptitude and occupational interest testing and very short-term prevocational services) are not central services that postsecondary educational institutions offer. Early indications are that most WIA resources were used for these services as well as to create the new infrastructure, leaving little money for vocational training supported by individual training accounts—the most natural activity for Perkins postsecondary institutions.³⁶ When comparing JTPA carryover and WIA services provided in 2000, at least two-thirds of JTPA client carryovers in the adult programs (73.6 percent) and dislocated worker programs (65.8 percent) received training services. By comparison, only about a third in either program (32.3 percent and 39.6 percent, respectively) received training under WIA (Table 3.7).

**Table 3.7
Service Emphases: 2000**

Percentage of Exitters Who Received:	Adult Program		Dislocated Worker Program	
	JTPA Carryovers	WIA Registrants	JTPA Carryovers	WIA Registrants
Core services only	10.1	32.6	11.4	19.4
Intensive services, no training	16.3	35.1	22.8	41.1
Training services	73.6	32.3	65.8	39.6

SOURCE: Wandner and O’Leary forthcoming. Analysis of the Workforce Investment Act Standardized Record Data (WIASRD) for 2000.
NOTE: Data are based on the 535 local areas that submitted Program Year 2000 WIASRD data.

In general, community colleges report being sent few students with ITAs. For example, in 1999, only 12 students with ITAs were referred to a California campus, although a North Carolina community college reported 170 WIA referrals (Hudis, Blakely, and Bugarin forthcoming). On the other hand, some states—including Michigan and California—report serving large numbers of potentially WIA-eligible individuals in community colleges.³⁷ However, these students are not referred by One-Stop centers and are not using ITAs.

• ³⁶ Florida is a notable exception in that state policy requires local WIBs to set aside 50 percent of their WIA funds for training (Hudis, Blakely, and Bugarin forthcoming).

• ³⁷ Based on the characteristics of recent students, about 10 percent of the for-credit participants have characteristics similar to WIA participants who might receive training services. Although this is a relatively small proportion of the postsecondary population, the absolute number is large (about half a million) (Internal NAVE analyses of NPSAS 2000).

- ▶ ***Several factors may to lead to greater community college participation in providing WIA services.*** Although the number of ITAs issued in the first few years since the passage of WIA has been limited, several trends are beginning to make training more of a priority. First, states have mostly completed creating the WIA infrastructure (WIBs, One-Stops centers, contracting mechanisms), making it possible for them to focus on other activities and services. Second, in some states and communities, an emphasis on “work-first” is giving way to greater balance in determining the appropriate emphasis on training (Barnow and King 2003). Finally, as unemployment has risen in 2001 and 2002, making employment for the most “unemployable” more difficult, the number of ITAs issued appears to be increasing (Administrative Data Research and Evaluation (ADARE) Project 2003).

Divergent accountability systems, poor state data systems, and limited awareness among participating agencies hinder efforts to coordinate Perkins and WIA.

Accountability systems serve as the foundation for both Perkins III and WIA. Federal law stopped short of folding Perkins into WIA or explicitly aligning WIA and Perkins accountability provisions, although the intention was for states to coordinate them (see Chapter 5 for more detail on accountability under Perkins).³⁸

- ▶ ***Differences in Perkins and WIA accountability measures are a disincentive for community colleges to participate in workforce systems.*** First, despite the shared emphasis on accountability and the intention to coordinate, the two laws mandated somewhat different outcome indicators; for example, WIA requires reporting of employment and earnings outcomes, while Perkins requires reporting of educational, skill attainment, and employment outcomes. Even where the indicators overlap—e.g., employment indicators—the measures states have required local programs to use for Perkins and WIA performance reporting are often different. For example, Section 136 of WIA specifies a six-month follow-up period to verify employment retention, whereas Perkins allows states to determine the follow-up period, and many states have chosen periods other than six months.³⁹ This lack of coordination results in an increased data collection burden for institutions that are both participating WIA providers and receive Perkins funding (Hudis, Blakely, and Bugarin forthcoming; White et al. forthcoming).

• ³⁸ Dec. 17, 1998 Memo from Department of Education and Department of Labor, www.doleta.gov/usworkforce/documents/misc/dol-edu-memo.htm (accessed January 15, 2003).

• ³⁹ For example, for Perkins employment reporting, Massachusetts requires information nine months after leaving education, while Michigan requires information after only three months; neither requirement coincides with the WIA six-month definition.

- ▶ ***Extensive recertification requirements are also a disincentive to participation.*** Most Perkins institutions were determined to be eligible training providers in the first year of WIA implementation.⁴⁰ However, in subsequent years, performance and training cost information provided by the institutions was required to determine eligibility. Many colleges claimed that the small number of WIA participants they received, juxtaposed with the costs of the additional WIA accountability recertification requirements, acted as a strong disincentive to their continued participation in the workforce system support by WIA (Hudis, Blakely, and Bugarin forthcoming).⁴¹
- ▶ ***Many states lack adequate structures to support extensive data collection.*** Although collecting extensive accountability data can be costly, such costs are compounded in states without central data collection systems. Meeting WIA reporting requirements to provide performance data by program and campus is difficult compared to what postsecondary institutions routinely have reported in the past. Typically, community colleges in states with extensive data collection supports have been far less critical of the accountability system. Even if they had not previously been collecting the specific data elements now required, the existing data collection capacity enabled them to adapt more readily (Hudis, Blakely, and Bugarin forthcoming).
- ▶ ***Participating state agencies are generally not coordinated.*** So far, the agencies involved in workforce development continue to operate as separate entities within their state governments. Despite the fact that some states earned WIA incentive payments for adequate performance, interviews with these states revealed that their successful records were built on effective performance by individual agencies rather than any coordinated effort.⁴² Agencies tend to be unaware of each other's goals, accomplishments, and performance.

In summary, early implementation of WIA has involved substantial development of workforce investment boards, One-Stop centers, and other service delivery infrastructure. Even in states where a transition to a WIA-like system took place in the early 1990s, many elements still needed to be constructed. Even where One-Stop centers and their partners were in place before WIA, it was necessary to develop eligible provider certification and recertification requirements and accountability measures consistent with the new law. Finally, developing management information systems, from scratch or by adapting existing systems, to reflect the integrated

• ⁴⁰ The law guaranteed eligibility as training providers to institutions eligible to receive federal funds under Title IV of the Higher Education Act of 1965. Most community colleges, the main recipients of Perkins postsecondary funds, were therefore automatically eligible.

• ⁴¹ Recertification requirements vary by state but in general involve substantial paperwork including periodic reporting, tracking, and documentation of outcomes for past participants.

• ⁴² Under WIA, the secretary of labor awards incentive grants to those states that exceed their state-adjusted levels of performance for Title I, Title II, and Perkins III programs to promote innovative practices.

nature of the new law required a substantial effort.⁴³ Nonetheless, progress on all these fronts has been made (D’Amico et al. 2001).

E. Outcomes and Effects

Vocational education at the postsecondary level has a fairly clear objective—to provide or improve job-related skills that enable individuals to enter the labor market, switch jobs, or advance in their current field. Policy encourages participants to complete a postsecondary program and earn a certificate, associate degree, or higher degree as a way to enhance their earnings.

A significant amount of debate surrounds the importance of attaining a credential, particularly for some participants. Some critics contend that the labor market places far less value on credentials for occupations at the sub-baccalaureate level than for occupations requiring a four-year degree, and, therefore, a policy or institutional focus on credential attainment is misplaced. They argue that even postsecondary participation in small amounts is beneficial and should be encouraged. Thus, it is important to look at who actually participates in postsecondary vocational programs and the amount of postsecondary vocational education they pursue as well as to examine their educational and earnings outcomes.

1. Attainment of a Postsecondary Credential

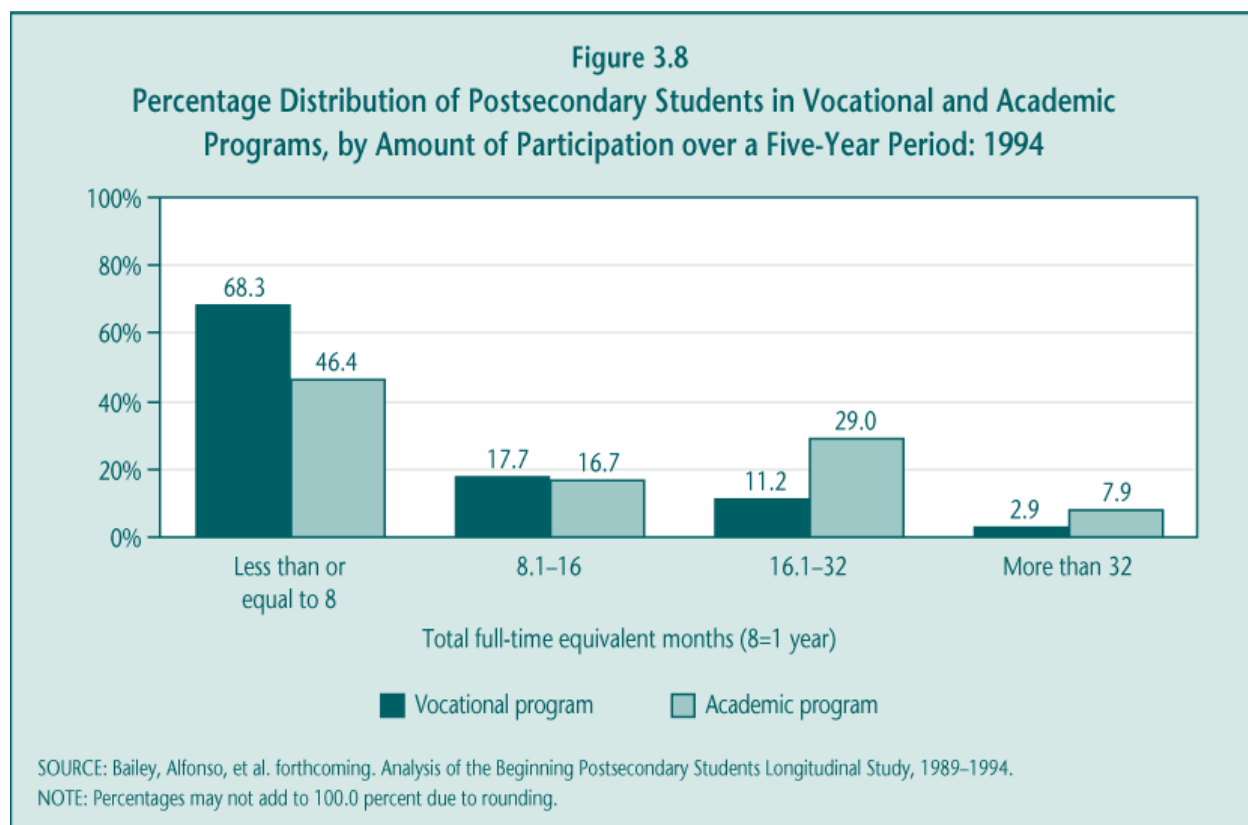
Federal policy has long supported the goals of postsecondary program completion and credential attainment. Federal student financial aid (Pell grants) and the TRIO programs established in the 1960s are designed to promote participants’ access to and attainment of a college degree. In the case of postsecondary vocational education, that would include completion of a certificate or associate degree or transfer in order to earn a baccalaureate degree.

Most (69.6 percent) of postsecondary vocational students have no prior postsecondary credential of any kind and over a third are younger than age 24, with little or no previous experience in the world of work. Some have argued that these participants, in particular, are unlikely to be well-served by small amounts of course work and may benefit most from attaining a credential (Grubb 2002).

• ⁴³ To reduce the reporting burden, most states have used existing Unemployment Insurance (UI) wage data for Perkins employment information. Although UI information is not comprehensive, it represents the most reliable and least burdensome data source currently available. However, efforts to rely on UI data for Perkins performance reporting have been complicated by a recent Department of Education interpretation of the Federal Education Rights and Privacy Act (FERPA), which now limits the extent to which a student’s personal information can be shared without his or her consent between state agencies overseeing higher education and the workforce development systems.

Postsecondary vocational participants have lower rates of persistence and completion than do academic participants.

Many students, both vocational and academic, leave sub-baccalaureate institutions and programs having completed few courses (Figure 3.8). However, students in vocational sub-baccalaureate programs appear to complete fewer courses than those in academic programs.



- ▶ ***Many postsecondary vocational students complete less than a year's worth of courses.*** Most postsecondary vocational students (68.3 percent) complete a year or less of courses within a five-year period, compared to 46.4 percent of academic students (Figure 3.8). Given these low rates of participation, a large share of both groups will fail to obtain any credential or to earn sufficient credits for transferring to a baccalaureate program.
- ▶ ***Less than half of vocational participants complete a credential of any kind.⁴⁴*** For example, among students who enroll in and state a goal of completing at least an associate

⁴⁴ These findings are based on student-reported results from BPS:1989-1994. Transcript analyses of traditional-age community college students provide corroborative evidence that less than half (45.2 percent) of students earned a credential between 1992 and 2000, even after excluding those who earned less than 10 credits (Adelman 2003). Neither analyses include industry-based certifications and are thus likely to understate somewhat potential credentials attained. For example, among case study students surveyed, about 36 percent of IT students participating in an industry-based certification program (Cisco, Microsoft, or Novell) passed a certificate test after completing related courses at a two-year college (Haimson and Van Noy forthcoming).

degree, considerably fewer vocational participants than academic participants can be considered “successful” completers. Only 38.9 percent complete a credential of any kind (a quarter of which are certificates, less than their original goal), and an additional 8.0 percent transfer to earn a baccalaureate degree within five years of first enrolling. In comparison, 52.9 percent of their academic counterparts complete some credential, and an additional 8.6 percent transfer to a baccalaureate program during the same period. In addition, among those with a bachelor degree goal, vocational students are less likely to attain any credential (27.5 percent compared to 32.4 percent) and far less likely to have transferred to a baccalaureate program (19.6 percent compared to 32.6 percent) (Table 3.8).

Table 3.8
Percentage of Students according to Highest Credential Attainment within Five Years,
by Program and Stated Goal: 1994

Credential	Sub-baccalaureate Programs	
	Vocational	Academic
Certificate goal, attain:		
Certificate	49.1	30.6
Associate degree	3.1	8.0
Bachelor degree	0.8	—
Any credential	53.0	38.6
Transfer to baccalaureate level	1.1	3.1
Associate goal, attain:		
Certificate	10.3	8.7
Associate degree	26.8	43.0
Bachelor degree	1.8	1.2
Any credential	38.9	52.9
Transfer to baccalaureate level	8.0	8.6
Bachelor goal, attain:		
Certificate	4.1	0.0
Associate degree	22.2	27.8
Bachelor degree	1.2	4.6
Any credential	27.5	32.4
Transfer to baccalaureate level	19.6	32.6
Baccalaureate Programs		
Baccalaureate goal, attain:		
Certificate		1.7
Associate degree		2.0
Bachelor degree		58.2

SOURCE: Bailey, Alfonso, et al. forthcoming. Analysis of the Beginning Postsecondary Students Longitudinal Study, 1989–1994.

Not surprisingly, completion rates are higher for vocational students in certificate programs than for those in associate degree programs. This pattern is largely due to the fact that certificate programs are shorter in duration than associate degree programs and generally require less rigorous academic preparation and course work. Even so, almost half (47.0 percent) of those who enroll in vocational certificate programs and state that they intend to attain a certificate still do not attain a credential within five years.

In contrast to the pattern for sub-baccalaureate students, students in baccalaureate programs are more likely to complete a credential even though the program is longer. Among those enrolled in a bachelor degree program, more than half (58.2 percent) attain that degree, 3.7 percent attain either a certificate or an associate degree, and an additional 19.1 percent are still enrolled five years later. A total of 81.0 percent are either still enrolled or have attained an academic credential.

The characteristics and goals of postsecondary vocational participants cannot fully explain their lower completion or persistence rates.

It is useful to examine the extent to which differences in the persistence and completion rates of academic and vocational majors are attributable to differences between the two populations of students. Some argue that vocational students spend less time than their academic counterparts in postsecondary education because they seek job skills rather than a longer-term education program culminating in a degree. Because credentials vary in length and difficulty, it makes the most sense to compare students who are pursuing similar credentials. It is not particularly meaningful to compare academic and vocational students among those seeking a certificate because almost all certificates are vocational. However, it is possible to analyze the gap in persistence and completion between academic and vocational students who pursue associate degrees.

As discussed in a previous section, even more so than their academic counterparts, vocational students have many characteristics that are traditionally linked to low persistence in and completion of postsecondary education (e.g., lower socioeconomic status (SES) and levels of academic preparation, more sporadic attendance, and less ambitious credential objectives). In addition, vocational students are much more likely to report wanting to upgrade their job skills as a primary reason for participating; earning a credential may not be part of their plans. The data suggest that these factors can affect the probability of completing a degree, but in many cases, the differences between academic and vocational students on these characteristics are not as substantial as many would think.

The following analyses look at the independent effect of various factors on the successful completion of educational objectives (Table 3.9). “Successful completion” is defined here as completing one’s stated degree objective of an associate degree or transferring into a baccalaureate program. In the main, attaining an institutional certificate is not considered “a success” because the education it requires generally falls short of the originally stated goal of an associate degree. On the other hand, a transfer is considered “a success” based on the assumption that this puts the student on a path toward a higher degree. Sensitivity testing of this definition—for example, including certificate attainment as a successful completion—suggests that, at least among the younger participants, vocational students are just as likely as their academic counterparts to attain a credential; however, they are more likely to attain a credential that requires fewer years of education than their originally stated objective (Bailey, Alfonso, et al. forthcoming).

Table 3.9
Percentage Difference in Likelihood of Successful Completion¹ among
Beginning Postsecondary Sub-baccalaureate Students
(Pursuing Vocational vs. Academic Associate Degrees): 1994

Among Those with a Stated Goal of Pursuing an Associate Degree:²	Beginning Postsecondary Students³
Actual (unadjusted) difference in vocational-academic completion rates	-18.8*
Difference controlling for demographic characteristics	-14.6*
Difference controlling for demographic, family, and SES characteristics	-16.8*
Difference controlling for demographic, family, and SES characteristics, educational background, and attendance patterns	-10.9**
Difference controlling for demographic, family, and SES characteristics, educational background, and attendance patterns and including completion of an institutional certificate and excluding transfer in the definition of completion	-10.1*

SOURCE: Bailey, Alfonso, et al. forthcoming. Analysis of the Beginning Postsecondary Students Longitudinal Study, 1989–1994.

¹“Successful completion” for an enrolled student with an original stated goal of completing an associate degree is defined as attaining an associate degree or higher or transferring toward completing a bachelor degree.

²Educational background information is limited in BPS. The National Education Longitudinal Study (NELS) provides richer prior education and better student academic achievement controls but only for a high school cohort of students.

³Students enrolled in sub-baccalaureate programs, Beginning Postsecondary Students Longitudinal Study (BPS) 1989–1994.

*Statistically significant at the 0.05 level.

**Statistically significant at the 0.10 level.

- ▶ ***Student demographic, family, and SES characteristics:*** Vocational students are more likely to be older and in the lowest SES quartile, have a parent who has attained less than a bachelor degree, and have more family responsibilities—all characteristics, based on previous research, that are associated with lower persistence and credential attainment. After taking these characteristics into account, however, the difference in rates of completion between vocational and academic students is largely unaffected (-16.8 percent vs. -18.8 percent) (Table 3.9).⁴⁵
- ▶ ***Attendance patterns:*** Enrolling less than full-time and interrupting one’s postsecondary education each decrease the estimated probability that sub-baccalaureate students will complete an associate degree. Less than full-time enrollment decreases the likelihood of completion (by 28.3 percent), as do interrupted enrollment and delaying enrollment for at least a year (-10.7 percent and -22.6 percent, respectively). Surprisingly, working students, even those who work more than half of the time they are enrolled, do not have a lower likelihood of completion.⁴⁶ Taking all of these attendance patterns into account reduces differences in rates of completion between students pursuing vocational and academic associate degrees by almost half (from -18.8 percent to -10.9 percent), but the difference is still statistically significant (Table 3.9).
- ▶ ***Student high school preparation:***⁴⁷ Among sub-baccalaureate participants in associate degree programs, students who pursued an academic track in high school were one-fifth to one-third more likely than those who pursued a vocational or general track to attain either a vocational or academic associate degree.⁴⁸ However, because vocational and academic sub-baccalaureate students are almost equally likely to have pursued an academic track in high school, differences in high school preparation do not affect the completion gap between vocational and academic students, at least among younger students.
- ▶ ***Student objectives:*** In the most recent NCES BPS survey (1996–98), students were asked to report their primary reason for enrolling in postsecondary education out of three possible reasons: “job skills,” “degree attainment or transfer,” or “personal enrichment.” As expected, students who cite “job skills” or “personal enrichment” are less likely (between

• ⁴⁵ For purposes of discussion, “successful completion” is defined as attaining an associate degree or higher or transferring for the purpose of completing a bachelor degree. Only students with an original stated goal of completing an associate degree are included in the analyses. Including transfers and excluding institutional certificates may bias completions in favor of academic students. Therefore, additional analyses were conducted and are reported below that include an institutional certificate and exclude transfer as a “success.”

• ⁴⁶ Because the analyses control for part-time status along with amount of work, this finding indicates that if working causes students to attend part-time, then their chances of completion are reduced. However, it is the part-time status, and not their working per se, that reduces their chances.

• ⁴⁷ The National Education Longitudinal Study (NELS), consisting of a 1992 high school cohort of students, is used for these analyses, and these data are not shown in Table 3.9; high school information is not available in BPS.

• ⁴⁸ Interestingly, among those who pursue a postsecondary sub-baccalaureate program, vocational concentrators are less likely than academic students to attain an associate degree, but the reduced likelihood of future success for vocational concentrators is far less than for general track students (only 20.1 percent compared to 32.3 percent for academic students).

-11.4 and -18.1 percent) to persist toward attaining a credential.⁴⁹ Despite the fact that vocational students are more likely to report these motivations, which might indicate that they were not seeking a degree, controlling for the reason students cite for participating in postsecondary education has no statistically significant influence on differences in persistence between academic and vocational students.

- ▶ ***Varying the definition of “successful completion”***: Including attainment of an institutional certificate and excluding transfer in the definition of “successful completion” have no statistically significant effect on differences in rates of completion between vocational and academic associate degree students. Specifically, vocational students are still 10.1 percent less likely to “complete” than academic students after considering all student characteristic adjustments (Table 3.9). However, when focusing on younger sub-baccalaureate students—those attending shortly after high school—differences in completion by major disappear. At least among younger students who state they want to earn an associate degree, vocational majors are more likely than academic majors to attain a certificate and less likely than academic majors to transfer. They are equally likely, though, to attain a credential (Bailey, Alfonso, et al. forthcoming).

Completion of a credential has long been a goal of federal policy. However, this preference is based largely on existing evidence about the importance of a bachelor degree for long-term success in the labor market. It is less clear whether a similar preference for credentials holds for sub-baccalaureate participants. In contrast to those pursuing a bachelor degree, many sub-baccalaureate students are older and already have substantial experience in the workforce. The importance the labor market places on obtaining a credential or even completing a substantial amount of course work is an empirical question that will be addressed in the next section.

Also, of potential interest is the finding that vocational students, especially younger ones, are more likely than their peers in academic programs to attain a credential that requires fewer years of education than they originally expected. Because academic students are more likely than vocational students to continue their education by transferring to a four-year institution, differences in attainment are mostly attributable to differences in transfer rates. Further analyses, however, do not attribute these differences in transferring to differences in educational aspirations. An alternative explanation may be that course work in many vocational programs, in contrast to that in academic programs, is not accepted for transfer credit.⁵⁰ It also turns out that vocational students who decide to shorten their education before attaining an associate degree may not have to leave “empty-handed”: they may have earned enough credits to attain an institutional certificate. Earning a credential for completed course work short of an associate degree is simply not an option in most academic programs.

• ⁴⁹ The “goals” question was included in surveys starting in 1996. Because these data have only three years of follow-up information, persistence rather than completion analyses were conducted. Persistence, however, is a strong predictor of completion (Tinto 1993; Horn 1996).

• ⁵⁰ However, community colleges are increasing their links with four-year institutions, and such efforts appear to be stronger than those established with local high schools (Hudis, Blakely, and Bugarin forthcoming).

Sub-populations among postsecondary vocational participants, including those designated as “special populations,” have completion rates that are similar to those of other participants.

Federal policy has encouraged the postsecondary vocational participation of students from specific groups—those who are economically and academically disadvantaged, individuals preparing for nontraditional training and employment, single parents, displaced homemakers, and individuals with other barriers to educational achievement, including limited English proficiency. Nationally representative data on some of these groups are limited, because the numbers of students with these characteristics in the population and in national surveys are small and only available for those students taking for-credit courses.⁵¹ The educational outcomes of younger participants are also of interest to policymakers given the efforts of Tech-Prep to improve outcomes among traditional-age participants (Table 3.10).

Table 3.10
Percentage Differences in Likelihood of Successful Completion,¹ by Select
Sub-populations (Pursuing Vocational vs. Academic Associate Degrees):
1994 and 2000

Sub-population	Percentage Difference
Economically disadvantaged (household income less than \$20,000)	6.9
Academically ² disadvantaged	-10.4

SOURCE: Bailey, Alfonso, et al. forthcoming. Analysis of the Beginning Postsecondary Students Longitudinal Study, 1989–1994, and the National Education Longitudinal Study, 1988–2000.

¹“Successful completion” for an enrolled student with an original stated goal of completing an associate degree is defined as attaining an associate degree or higher or transferring for the purpose of completing a bachelor degree.

²Detailed prior academic attainment information is available only in NELS, which follows a cohort of high school students who were scheduled to graduate high school in 1992. Students scoring in the lowest two academic test quartiles (12th-grade test) are defined as “academically disadvantaged.”

- ***Economically disadvantaged vocational students complete at low rates but do at least as well as their academic counterparts.*** Economically disadvantaged students—vocational or academic—are less likely than economically advantaged students to complete a credential (Bailey, Alfonso, et al. forthcoming). However, this disadvantage appears to affect those in vocational and academic programs about equally; among economically disadvantaged

• ⁵¹ The national data contain insufficient numbers of limited English-proficient (LEP) and disabled students to examine the outcomes of these sub-populations. However, sample sizes in state record data are sufficient to at least look at educational outcomes of LEP students and students with disabilities, and those suggestive findings are reported. Neither national databases nor most state record systems allow analysis of displaced homemakers.

students, the difference between those in a vocational and an academic program in their probability of completing is not statistically significant (-10.4 percent) (Table 3.10).

- ▶ ***Among academically disadvantaged students, academic and vocational students are equally likely to complete to a credential.*** As is true for economically disadvantaged students, there is little difference between academically disadvantaged students in vocational versus academic programs in their completion rates. Among students who scored in the lower half of the distribution on a 12th-grade academic achievement test, the likelihood of completion does not differ statistically between academic and vocational students (-10.4 percent) (Table 3.10).⁵²
- ▶ ***Differences in completion rates for special population groups are likely to mirror overall differences between sub-baccalaureate students seeking an associate degree.*** Separate analyses for other special populations of interest are not generally possible due to the small numbers of these students in national data.⁵³ However, being a single parent and having disabilities have no statistically significant effect on the completion rate of sub-baccalaureate students after controlling for other differences in background and educational preparation.

2. Earnings Benefits

Increasing earnings is a primary objective for many, if not all, students who participate in postsecondary education. Past research has generally shown that postsecondary participation enhances earnings; however, the majority of this evidence is based on the benefits of having a baccalaureate degree. Very little research focuses on those students who pursue sub-baccalaureate programs, and even fewer studies address the economic returns to vocational programs.⁵⁴ And yet, vocational programs, by their very nature, are designed to prepare students for work. Whether or not postsecondary vocational course work increases the earnings of participants beyond those of a high school graduate is potentially an important measure of the success of vocational programs.

Analyses of the economic returns to education typically require data that follow program participants over a long period of time. If education enhances labor market skills that lead to better career opportunities, the economic benefits accrue over time with both higher earnings growth and potential. Because young people, in particular, can take several years to settle into their long-term career paths, their initial earnings are not a good indicator of their earnings potential and thus the rate of return to education. Instead, to obtain a more accurate picture of the

• ⁵² Sample size issues potentially limit these analyses.

• ⁵³ Separate analyses of LEP students are possible using state administrative records data. Analyses of LEP students are suggestive of higher completion rates among LEP students who choose a vocational rather than an academic major. Even here, though, sample sizes are relatively small.

• ⁵⁴ Kane and Rouse (1999) provide evidence about the returns to baccalaureate and sub-baccalaureate degrees. Grubb (2002) provides a comprehensive review of existing research on the economic returns to sub-baccalaureate education with and without a degree.

economic returns to postsecondary education, it is necessary to gather information about an individual's income many years after he or she enters the labor market. Therefore, the analysis here is restricted to graduates from the high school class of 1992.⁵⁵ Although these data cover the early years of the cohort's career path, they provide a reasonable first snapshot of the benefits of postsecondary education.⁵⁶

Whether small amounts of postsecondary vocational course work (without attaining a credential) provide benefits depends on gender.

Because the majority of sub-baccalaureate students take relatively few courses and most do not attain a credential, it is worthwhile to examine whether more limited participation does indeed generate economic benefits (Table 3.11). These earnings returns to education were measured up to six years after a student's scheduled graduation from a two-year program. Analyses are conducted separately for male and female students because schooling and work decisions differ by gender.⁵⁷

• ⁵⁵ Also, due to limitations in information about postsecondary course work in the fourth follow-up, analyses were only possible for those students who enrolled in postsecondary education within two years—by 1994. Available data do not include information about course of study for those who enrolled after 1994.

• ⁵⁶ Earnings analyses based on data representative of the broader population served by postsecondary sub-baccalaureate programs were conducted as well (BPS:1989–1994 and state administrative records in Texas and Florida). Findings from these analyses, though, are only suggestive because the follow-up period is shortly after students participated in postsecondary education. Earnings fluctuate the most at the early stages of one's career and thus may not be representative of earnings over a longer time period. Analyses based on the National Longitudinal Survey of Youth (NLSY) indicate that very small amounts (less than four weeks) of school-based training do not appear to benefit workers. In contrast, and not surprisingly, similar amounts of short duration company training (job and company specific) do result in an immediate wage increase (Lengermann 1996).

• ⁵⁷ The findings here are generally consistent with prior studies in the literature: that is, small amounts of postsecondary education provide limited economic benefits (Grubb 2002).

Table 3.11
Adjusted Percentage Difference in Earnings between Postsecondary Vocational Program Participants and High School Graduates: 1986 and 2000

Returns to:	1986		2000	
	Male	Female	Male	Female
One year of sub-baccalaureate courses	.021 2.1%	.135* 14.5%	.057* 5.9%	.099* 10.4%
Vocational major	.039 4.0%	.122* 13.0%	.077* 8.0%	.053 5.4%
Academic major	.004 4.1%	.149* 16.1%	.036 3.7%	.152* 16.4%
Institutional certificate	.051 5.2%	.228* 25.6%	.063 6.5%	.151* 16.3%
Associate degree	.115* 12.2%	.387* 47.3%	.158* 17.1%	.365* 44.1%
Vocational	.121* 12.9%	.373* 45.2%	.264* 30.2%	.385* 47.0%
Academic	-.107 -10.1%	.292 33.9%	.022 2.2%	.335* 39.8%
Baccalaureate degree	.374* 45.4%	.582* 79.0%	.374* 45.4%	.662* 93.9%

SOURCE: Bailey, Kienzel, and Marcotte forthcoming. Analysis of the National Education Longitudinal Study, 1988–2000.

*Statistically significant at the 0.05 level.

NOTE: This table presents both regression coefficients and earnings differentials. Regression coefficients are typically reported in academic journals and formal reports. However, to provide a more meaningful metric, these coefficients have been translated into the estimated difference in earnings a postsecondary student would obtain for a given amount of course work, compared to a similar high school graduate (formula: $e^{\text{coefficient}} - 1$). For example, in 2000, male students who obtained a vocational associate degree earned 30.2 percent more than a high school graduate who has similar personal and family background characteristics and work experience as indicated in the darker bar under the regression coefficients.

- ▶ ***Even without a credential, a year's worth of postsecondary credits for male vocational students now pays off.*** In 2000, male vocational students who did not attain a certificate or degree still earned 8.0 percent more per year of postsecondary education than did similar high school graduates. This finding represents a shift from 1986, when a year of courses without earning a credential provided no real economic return for males. Perhaps newer offerings, such as IT courses, are more easily recognized and more highly valued in the current labor market than the individual courses were more than 15 years ago. In neither year did male students in academic sub-baccalaureate programs who took a year of courses but did not earn a degree do better than a high school graduate.
- ▶ ***Female vocational students who pursue a year's worth of credits without receiving a credential do not reap economic benefits.*** For female students in 2000, taking a year of course work led to earnings that were higher but not statistically different from those of female high school graduates. This finding also contrasts with the pattern 15 years ago, when course work without earning a credential did produce economic advantages. One possible reason for the change is that females enroll predominantly in health and business programs, fields in which state licensing and other credentials have become more important gateways to jobs; it is possible that it is harder now to participate in those credentialing processes without an institutional certificate. On the other hand, there appear to be large returns for females pursuing one or two years of sub-baccalaureate study in an academic field.

Those who pursue significant amounts of postsecondary education and earn a credential reap the greatest economic rewards.

Federal policy places substantial importance on attaining a postsecondary degree, in part, because of the expected economic benefits of holding that credential. However, many in the sub-baccalaureate community argue that in an environment of lifelong learning, students pursue additional education a few courses at a time, and as they can, and they may not always be seeking a formal degree or certificate. Given the potential gap between federal objectives and actual student participation, it is important to examine the relative economic benefits of earning a postsecondary vocational credential.

The evidence suggests that, for some, there are benefits to participation even if a student does not attain a credential, but those effects are relatively modest. Substantial *additional* income gains occur for those who attain a credential, bolstering the policy goal of credential attainment, at least among young participants (Table 3.11).⁵⁸ There is also evidence that the importance of a credential in the labor market may be increasing for both male and female students.

• ⁵⁸ The analyses include 12th-grade test scores and SES or family background variables to correct for biases due to selection. Also, a Hausman test confirmed that neither the instrumental variable (IV) nor Heckman estimates (that correct for selection bias) were significantly different from the estimates listed in Table 3.11. Also, these findings are consistent with those in the literature: that is, associate degrees provide significant economic benefits beyond those of high school diplomas, more so for those who attain the credential and more so for women than men (Grubb 2002).

- ***Female vocational students generally need a credential to benefit from their postsecondary vocational education.***⁵⁹ In 2000, female students who attained a vocational associate degree increased their earnings above and beyond female students with only a high school degree by 47.0 percent. These figures represent a significant benefit over completing the amount of course work necessary for the degree but not the credential itself—earnings of only 11.2 percent more than a high school graduate (derived by doubling the coefficient for a year of course work [.053] and using that coefficient in the following formula: $e^{.053 * 2} - 1 = 11.2$ percent).⁶⁰

In 2000, female students also reaped an earnings benefit over female high school graduates when they attained a certificate (16.3 percent). That benefit is higher than that of simply completing a year's worth of courses, approximately the amount needed for a certificate (5.4 percent), but the differences are not statistically significant, perhaps because of small sample sizes.⁶¹

The importance of obtaining both types of credentials may be increasing. Compared to their counterparts in 1986, female vocational students in 2000 were economically much better off when they attained a certificate or associate degree than when they completed the approximate course work needed but did not get the credential.

- ***Credentials seem to matter less for male vocational students.*** Although the general pattern for male vocational students appears similar to that for females, the results are not statistically significant. Estimates suggest that the rate of return for male vocational students who attain a degree is greater (30.2 percent) than for male participants who complete two years of course work without attaining a degree (16.6 percent⁶²). The earnings returns to completing a certificate also seem higher than the returns for one year of course work. However, we cannot conclude that, on average, the degree produces higher economic benefits or that the credential itself adds to earnings.

On the other hand, the data suggest that the importance of a credential for male vocational students, as was true for female students, increased between 1986 and 2000. That is, the economic returns to a vocational associate degree more than doubled for men during that

• ⁵⁹ Substantial participation by females in the field of health may largely explain the heightened importance of attaining a credential for females. Many of the occupations in this field require licensing, which in turn require attainment of an educational credential.

• ⁶⁰ The importance of attaining an associate degree credential may be increasing for female students. In contrast to 1986, there were no earnings benefits for completing vocational course work without a credential in 2000. But in both years, there were benefits to earning the actual degree.

• ⁶¹ Analyses based on state UI records in Texas and Florida indicate that individuals who attain a certificate generally do significantly increase their earnings. In addition, it is worth highlighting that the certificate credential, although typically a one-year program, includes a fairly diverse set of programs, some of which are much less than a year's worth of courses serving to dampen the average return to such a credential.

• ⁶² To obtain the two-year coefficient, the one-year coefficient is doubled. The percentage difference in earnings is then calculated using the following formula: $e^{\text{coefficient} * 2} - 1$.

period (from 12.9 percent more than a high school graduate to 30.2 percent more). The returns to completing course work without a credential also increased, but not by as much.

Taken together, the findings indicate that there is economic value to postsecondary vocational education and that the value increases for both male and female participants as they earn more credits. The greatest earnings are obtained by those completing an associate degree, and to a lesser extent a certificate.⁶³ Because these findings are based on students who are among the younger sub-baccalaureate participants, additional analyses were conducted with data that include a broader cross-section of students, although there was a shorter follow-up period to examine earnings.⁶⁴ The patterns in these additional analyses are generally consistent with the findings from the younger cohort.⁶⁵

Economic benefits are similar across the diverse populations served by postsecondary vocational education.

Current Perkins policy potentially affects all vocational programs and all of its participants. However, the effects of vocational education among special populations are of particular policy interest. In addition, separate funding for Tech-Prep (Title II of Perkins III) implies an extra policy concern for younger participants making the transition between high school and postsecondary education. The next section addresses the economic benefits for many of these sub-populations.

• ⁶³ The rate of return for both male and female students who earn a vocational associate degree is nearly double that of completing a comparable amount of course work (two years) without attaining a credential (47.0 percent compared to 11.2 percent for females and 30.2 percent compared to 16.6 percent for males). The program or “sheepskin” effect is only statistically significant, though, for females.

• ⁶⁴ Such analyses, though, are limited due to their short follow-up period. BPS:1990–1994 provides information about students who pursue postsecondary sub-baccalaureate programs, over a quarter of whom were age 24 or older at the beginning of the study; however, income information is gathered at most three years after students’ scheduled graduation from a two-year program; thus, the information offers very short-term estimates of the benefits to postsecondary education. State educational data records linked with UI wage information provide additional and more recent information for a population similar to the national BPS data. These data include students who enrolled in sub-baccalaureate programs beginning in 1997 and include longitudinal information through 2000; both income data prior and subsequent to their postsecondary participation are included in these analyses.

• ⁶⁵ According to findings from the national data, only females obtaining a vocational associate degree realize immediate gains from postsecondary sub-baccalaureate programs. Analyses based on state data, in which the sample size is larger and the data are more recent, indicate that both completers and noncompleters benefit from vocational programs. Again, though, economic benefits based on analyses using state data increase with vocational credit accumulation.

As is true for postsecondary vocational students generally, the evidence suggests that various groups of students are mostly well-served by vocational education, especially those who complete significant amounts of vocational course work (Table 3.12).

Table 3.12
Rate of Return to Participation in Postsecondary Education Compared to Completion of High School, by Special Sub-populations: 1994 and 2000

Returns to:	Economically Disadvantaged		Academically Disadvantaged		Total Population	
	Male	Female	Male	Female	Male	Female
One year of sub-baccalaureate courses	+	0	+	+	+	+
Vocational major	+	0	+	0	+	0
Academic major	+	0	0	+	0	+
Institutional certificate	+	+	0	0	0	+
Associate degree	+	0	+	+	+	+
Vocational	0	+	-	-	+	+
Academic	+	0	-	-	0	+

SOURCE: Bailey, Kienzel, and Marcotte forthcoming. Analysis of the National Education Longitudinal Study, 1988–2000 and the Beginning Postsecondary Students Longitudinal Study, 1989–1994.

+ = Statistically significant positive rate of return.
 - = Statistically significant negative rate of return.
 0 = No statistically significant difference.

- ▶ ***Economically disadvantaged students:*** Similar to the findings for all vocational students, students in the lowest SES quartile benefit from participating in postsecondary vocational programs. Males benefit whether they attain a credential or not. Only females who attain a credential—certificate or associate degree—have statistically significant higher earnings than their counterparts who only earn a high school diploma.
- ▶ ***Academically disadvantaged students:*** Similar to the overall findings, male, but not female, academically disadvantaged students who take a year of vocational course work increase their earnings beyond what they would earn with only a high school diploma. Both academically disadvantaged male and female students benefit from attaining an associate degree, although there are insufficient data to distinguish between the economic returns to vocational and academic associate degrees for these students. There is also no statistically significant difference in earnings between academically disadvantaged students who obtain

a certificate and those with only a high school diploma, again possibly due to the small sample size.

- ▶ ***Students from other special populations:*** The number of vocational participants in other sub-populations of interest is small, making separate analyses within these groups impossible. However, in analyses of the total population, the rate of return to vocational education is basically unchanged when these characteristics (single parent, LEP, or disability status) are taken into consideration.

- ▶ ***Younger students:*** Among students younger than age 24, vocational courses are still economically beneficial, and particularly so for those who earn a credential. Analysis of administrative records in two states suggests that earnings gains are significantly higher for those who earn a credential. In contrast, there are no statistically significant earnings gains for students who pursue sub-baccalaureate academic programs (Hoachlander et al. forthcoming).

**Addendum to the Official Report:
National Report on the Development and State of the Art of
Adult Learning and Education**

**Submissions Received in Response to a Questionnaire Posted on the
U.S National Commission for UNESCO's Website**

Submissions received from an online questionnaire posted on the U.S. National Commission for UNESCO's website

Below are submissions received in response to an online questionnaire posted on the U.S. National Commission for UNESCO's website. The questions were designed based on the Guidelines for the UNESCO National Report on the Situation of Adult Learning and Education and to solicit voluntary information about adult education organizations and programs in the United States. The information below provides excerpts of the submissions received.

1. Definitions of adult education/adult learning:

Adult Education/Adult Learning is very broadly defined ...as a field that focuses on the lifelong learning of adults. Since inception, the adult education movement has been concerned with the betterment of society. Accordingly, members of the Association are involved in the development not only of individuals but also the contexts in which the individuals navigate, hence the attention likewise to organization development, community development, societal development, as well as national and international development...[Adult] learning is viewed as an internal life-long process that encompasses non-formal, informal and self-directed learning as well. (**American Association for Adult and Continuing Education**)

[T]o advance and disseminate knowledge required for a globally aware and responsible citizenry.“(**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

[Adult education] can be seminars, conferences, courses or certificate programs. Many have to do with Workforce Development. The many offerings help people create new careers, advance their skills for promotions and help to enrich their lives through personal development courses. (**The Continuing Education Association of New York**)

2. National level coordination:

“We are a national organization that hosts an annual national conference, a website, and publishes two peer-reviewed journals: Adult Education Quarterly and Adult Learning. We also work with state and local associations of adult education in the United States and liaise with professional associations around the world.” (**American Association for Adult and Continuing Education**)

Via public radio and the World Wide Web, our programs have national and worldwide outreach although we do not coordinate activities at the national level. We are a member of the World Affairs Councils of America and therefore have input into organizing world affairs grass roots education nationally. (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

3. Areas of adult learning:

We address adult learning in all milieus. For example, our members deal with matters from literacy to doctoral candidates in adult education...We have seven Commissions: Commission of Adult Basic Education and Literacy, Commission of Affiliate Organizations, Commission of Community, Minority, and Non Formal Education, Commission of International Adult Education, Commission of Military Education and Training, Commission of Professors of Adult Education, and Commission of Workforce and Professional Development.

Our annual conference includes and addresses the research and practice of our members in the following categories, which also function as special interest groups: Adult High School, Adult Learning, Adult Learners with Disabilities, Adult Psychology, Aging, At-Risk Population, College and University, Community and Non-Formal Education, Community College, Continuing Education Administration, Cooperative Extension, Correctional Education, Counseling and Adult Learner Services, Distance Learning and Technology, English as a Second Language, Funding Sources, GED, Health Education, History and Philosophy of Adult Education, Human Resource Development, International Education, Literacy, Workforce Development, Military Education & Training, Minority and Human Rights, Popular Education, Professional Development, Professors of Adult Education, Program Management and Administration, Religious Education, Vocational and Career Education, Women's Issues, Status and Education. (**American Association for Adult and Continuing Education**)

Non-formal world affairs education. (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

We have two degree completion programs. One is [registered nurse] to [Bachelor of Science in Nursing] and the other is Organizational Leadership. (**Division of Adult and External Studies, Goshen College**)

CEANY Member colleges and universities address the following areas of learning: Computers, Test Prep, Academic Skills, Personal Enrichment, Real

Estate, Paralegal Studies, Insurance, Worker Safety, Sustainability, Arts and Humanities, Project Management, Business, Management, ESL, Healthcare, College for Kids, College for Older Adults, Corporate Training, International Studies, Entomology and Pest Control, Graphic Design, Driver Education, Personal Trainer Certification, Security Guard Training, Wealth Management, Sports, OSHA Training, Languages, ASL, Notary Public, Teacher Training.
(The Continuing Education Association of New York)

Center divisions include noncredit and customized programs, the Tennessee Small Business Development Center, leisure learning and personal development, professional development and workforce training, English as a second language, dual enrollment, online and distance education (credit), Veterans Upward Bound, Tri-county Upward Bound and the Educational Opportunity Center... Online degree programs, online workforce development training, online certificate programs for entry-level career skills and continuing education and online personal development and leisure learning are available. **(Center for Extended and Distance Education, Austin Peay State University)**

4. Program alignment with other goals and policy sectors:

Particularly germane is a multi-faceted Futures Study established, organized, and activated by AAACE dealing with Future Directions for Adult and Continuing Education in society-at-large. A key feature of the project (initiated in 2002 and ongoing) is the study as well as action currently underway to forge alliances across various segments of the adult and continuing education field as well as with other sectors in society. Pilot action projects are underway that focus on adult education for public responsibility, illuminating citizens' roles regarding local, national, and international issues and highlighting the crucial importance of collaborative planning. More extensive information is available at www.aaace.org/futures. **(American Association for Adult and Continuing Education)**

We coordinate with various sectors of the community in facilitating world affairs education relevant to the area of interest. **(Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee)**

5. Primary target groups:

Our target group is mid level employees who are 30-50 years of age.
(Division of Adult and External Studies, Goshen College)

The general public, students (K-12, college), Diaspora groups, the business community, media, government representatives. (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

Primarily post secondary to retirement. (**The Continuing Education Association of New York**)

Our programs are targeted toward and developed to serve adult learners and nontraditional college students, though many of our students are in the traditional 18-24 age bracket... The primary target for our on-site programs, both credit and noncredit, is the population of the upper middle Tennessee area, particularly Montgomery, Cheatham, Houston, Humphries and Stewart counties. Our credit and noncredit online programs are available worldwide via the Internet. (**Center for Extended and Distance Education, Austin Peay State University**)

6. Measures to mobilize learners and increase public participation:

[W]e founded the Adult Learner's Week, since diffused around the world. Recently, we have initiated a series of regional conferences to which we invite a broad range of researchers, practitioners, and policy makers so that we can jointly address trends, issues, and concerns for regional collaboration. (**American Association for Adult and Continuing Education**)

We have taken great care to make programs accessible through a low price point for face-to-face programs and to also utilize the media (public radio, public television, the internet) to reach a broad spectrum of learners. (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

Regional Conferences, Annual Conference, Website, Catalogues that reach millions of New Yorkers Community Outreach Programs. (**The Continuing Education Association of New York**)

7. Costs and funding:

Funding derives from member dues, conference revenue, publications, and Education Foundation donations. (**American Association for Adult and Continuing Education**)

We receive State and private funding; most private support comes in the form of memberships and most corporate support comes in the form of in-kind donation (ads, flights, etc...) (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

The noncredit programs included in the Center (ESL, noncredit and customized programs) are 100% self-supporting, generating revenues to cover costs for all operating expenses, salaries and benefits... Credit programs, both on site and online, are funded by student tuition and state funding. (**Center for Extended and Distance Education, Austin Peay State University**)

8. Certifications and/or national awards:

The American Association for Adult and Continuing Education (AAACE) confers several categories of awards to recognize and honor exemplary contributions to adult and continuing education. The awards are a highly visible component of the association's statement about standards of excellence in the field:

President's Award for Exceptional and Innovative Leadership in Adult and Continuing Education: This award is presented to persons from education, government, industry, or other sectors who demonstrate exceptional and innovative leadership to or in support of adult and continuing education.

Outstanding Service Medallion: This award recognizes persons who have an outstanding record of service to the profession of adult and continuing education at the state, national, or international level.

Malcolm Knowles Award for Outstanding Adult Education Program of the Year: [T]his award recognizes teams or individuals for outstanding leadership to programs, in accordance with andragogical processes, that demonstrate particular effectiveness, relevancy, creativity, immediacy, institutional cooperation or collaboration and legislative impact.

Cyril O. Houle Award for Outstanding Literature in Adult Education: It is given annually...for a book published in English in the previous year that reflects universal concerns of adult educators.

Imogene Okes Award for Outstanding Research in Adult Education: It is given annually...for a report of original research done by single or joint authors and published in English in the previous year, or a work that reflects the ideals for which Imogene Okes stood.

Curriculum Innovation Award: This award...recognizes innovative approaches to the education of adult educators.

Career Achievement Award: This award...recognizes the scholarly contributions of individuals who, over a sustained period of years, have deepened the knowledge base of the field through a solid, sustained, scholarly agenda.

Early Career Award: This award honors individuals who are in the early stages of their academic career, and who have made significant contributions in scholarship and service to the field.

The Commission on Military Education and Training (CMET) offers the following awards:

The Tilton Davis, Jr. Military Educator of the Year Award: This award is presented to an educator, military or civilian, associated with any of the Services or institutions serving a military population.

The Ray Ehrensberger Award for Institutional Excellence in Military Education: This award seeks to recognize an accredited institution providing educational services for a predominantly military population.

The Leon Y. McGaughey Adult Military Learner of the Year Award: The recipient of this award must have been a student or self-directed learner during the 12 months prior to the nomination date, must be or have served in the military while pursuing the educational objective for which nominated, and have notable responsibilities beyond him- or herself and/or a challenging work situation.

The Major General (MG) Kathryn G. Frost Award for Exceptional and Innovative Leadership in Continuing Education: A nominee for this award will have a professional history (at least ten years) in continuing education that is characterized by an ability to envision a new reality and aid in its translation into concrete terms.

(American Association for Adult and Continuing Education)

We have established an annual issue brief competition for graduate students; this is an international competition, but most participants are national. **(Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee)**

9. Quality provision methods:

Peer review of journal articles, peer review of conference proposals, peer review of conference presentations and the conference as a whole.

Also, the Commission of Professors of Adult Education (CPAE), decades ago, established and endorsed the “Standards for Graduate Programs in Adult Education,” providing a guide as to what constitutes “best practices” for graduate degree programs in the field. The document, available at www.aaace.org/cpae, but currently being updated, offers guidelines and standards for high quality planning, administration, and evaluation, as part of a voluntary internal or external assessment process. (**American Association for Adult and Continuing Education**)

Quality is ensured by using entrance and exit surveys of the students. We also evaluate the syllabus used in all the courses to make sure the desired material is covered in the degree completion process. (**Division of Adult and External Affairs, Goshen College**)

All programs sponsored by the Center are monitored using student and instructor evaluations to evaluate performance and student satisfaction. (**Center for Extended and Distance Education, Austin Peay State University**)

10. Surveys/studies on learner motivation and/or non-participation and groups that are difficult to reach:

Since 1934 the Association and its predecessors have published during each decade a Handbook of Adult and Continuing Education. (**American Association for Adult and Continuing Education**)

We do an exit survey with each group who graduate from our program. It shows a high motivational level for our students. (**Division of Adult and External Affairs, Goshen College**)

I have conducted qualitative research (phenomenological) to look describe adult learners' lived experiences as participants in world affairs educational programs, how they make meaning of content and delivery, and how past experience and culture may impact this meaning making. Results include: 1) self-identified culture influences participants' selection of program; as a result program designers should pay attention to cultural differences related to logistics 2) and participants' learning preferences influence their choice of program participation; therefore, offering educational opportunities for participants through lecture, discussions, and web formats can appeal to a more diverse group of learners. (**Institute of World Affairs, Center for International Education, University of Wisconsin-Milwaukee**)

11. Innovations and examples of good practice:

[I]t is through the research, writings, presentations, and collaborative efforts of AAACE and other like organizations that cutting-edge technologies evolve into innovative solutions that truly support the learner and result in an effective presentation of relevant course materials.
(American Association for Adult and Continuing Education)

We have one total cost for the program – no hidden costs; meet on one night per week -do not change the time or place of class; and hand out books and syllabus- do not make students find time to go to the bookstore or other areas of the college
(Division of Adult and External Affairs, Goshen College)

Noncredit classes are designed to be experiential, student-centered experiences, based on the theory of andragogy and relevant to the real-life needs of the students... Our online degree program is an integral part of both the traditional and nontraditional programs of higher learning, meeting the needs of a diverse audience via the Internet... the Center strives to provide programs for a nonracially identifiable student body, offering access to programs regardless of race, age, gender or physical limitation. **(Center for Extended and Distance Education, Austin Peay State University)**

12. Expected outcomes of CONFINTEA VI:

CONFINTEA VI could provide a platform and launch plans to spur the use of technology to increase all types of adult learning activities ranging from literacy to doctoral degrees, consortia to meet global challenges, and share quality learning resources beyond print. Since 1997, the proliferation of distance education (hybrid and online courses) has grown and benefited many. The appeal of Distance Education is multifold; the combination of course Flexibility, Availability, Applicability, Portability, and Affordability serves to minimize the hurdles adult learners face as they pursue their academic goals. Continuing education's ability to link emerging technologies with the academic/training pursuits of today's traditional and nontraditional learner directly supports efforts to further promote the competitive edge of America and its workforce. Equal attention is warranted to social justice issues, as is the accessibility of technology.

UNESCO should continue and expand its emphasis on a global knowledge society, especially based on the increased movement toward a knowledge

economy. CONFINTEA VI could provide an avenue for Adult Educators' contributions, concerns, and insights

CONFINTEA VI could serve as a catalyst for individual countries to focus on the unsung heroes of adult education in their countries to better understand, learn from, and publicize their efforts. These stories of successful outreach to adult learners could be shared across the globe increasing our common understanding. (**American Association for Adult and Continuing Education**)

As part of a state-wide system of colleges, universities, community colleges and technology centers, we would hope that international focus on the needs of the adult learner, the importance of continuing higher education, the value of workforce development and the advancement of nontraditional students would be a priority for our state and national leaders, fostering realistic funding, improved communication and greater emphasis on the development of the American workforce as a viable competitor in the international community. (**Center for Extended and Distance Education, Austin Peay State University**)