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## The Year 2002 in Review

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Thomas G. Sticht

### INTRODUCTION

The year 2002 marked 35 years since President Lyndon Baines Johnson signed the Adult Education Act early in fiscal year 1967, thereby creating the Adult Education and Literacy System (AELS) of the United States.<sup>1,2</sup>

Since its creation, the AELS has increased in terms of both fiscal resources and the numbers of adults who participate in it each year. Expressed in constant 2001 dollars, the AELS in fiscal year 1967 received

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<sup>1</sup>In August 1964, Public Law 88-452, the Economic Opportunity Act (EOA), Title IIB: the Adult Basic Education (ABE) Program, was passed. Two years later, the ABE Program was removed from the EOA and renamed the Adult Education Act. Early in fiscal year 1967 (November 1966), it was incorporated as an amendment to the Elementary and Secondary Act of 1965 entitled Title III: The Adult Education Act. In 1991, the Adult Education Act was renamed the National Literacy Act, and in 1998, it was renamed once again and incorporated into the Workforce Investment Act of 1998 as Title II, The Adult Education and Family Literacy Act (Sticht, 2002d, pp. 33–38). As the federal fiscal year extends from October 1 of one year to September 30 of the following year, there were 35 years from fiscal year 1967 to fiscal year 2002.

<sup>2</sup>In this chapter, the Adult Education and Literacy System (AELS) is defined as those programs operating by the funds, rules, and regulations of the Workforce Investment Act of 1998, Title II, The Adult Education and Family Literacy Act.

funds of some \$106 million from the federal government, with matching funds from state and local sources of around \$53 million (Sticht, 1998, p. 4). This provided education for more than 377,000 adults. By 1999, federal funds had increased to more than \$383 million, while state and local funds increased to more than \$1.1 billion in constant 2001 dollars, and enrollments rose to more than 3.6 million adults (U.S. Department of Education, 2002a).

During 2002, adult educators in New York, Massachusetts, Minnesota, New Mexico, California, and Washington held meetings at which the AELS was celebrated (Sticht, 2002c). Altogether, more than 2,000 educators, adult students, government officials, business representatives, and others learned about the history and achievements of the AELS, and the hundreds of thousands of teachers and administrators who have worked in the AELS, and the more than 75 million adults (Sticht, 1998; U.S. Department of Education, 2002a) who studied and learned in the AELS in the last third of the 20th century, were recognized.

## **Overview of Chapter**

This chapter first discusses activities of the U.S. Department of Education (DOE), Office of Vocational and Adult Education (OVAE), Division of Adult Education and Literacy (DAEL), which has federal oversight of the state grants that fund the AELS. It then discusses additional topics of special interest in 2002, including adult reading research and instruction; assessment of adult learning; issues of race, ethnicity, and racism in adult education; and the second year of the National Literacy Summit 2000 Action Agenda.<sup>3</sup> Following the discussion of these topics, some important milestones in the field during the year are noted.

## **DAEL AND THE AELS OF THE UNITED STATES**

This section discusses three major activities from the DAEL in 2002: the first report on the use of an early version of the National Reporting System

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<sup>3</sup>Special topics for review in this chapter were selected following a survey of Internet discussion lists; journals on adult education, reading, and literacy; review of Web-based reports and forums; participation in conferences and meetings; discussions with adult educators, researchers, and policymakers; and from comments by reviewers of earlier drafts of the chapter.

(NRS) to obtain accountability data from the states about the AELS, a report outlining the OVAE/DAEL strategic plans for the field in the near future, and a report on the final funding for the AELS and several other federal adult literacy programs for fiscal year 2003.

### **Accountability Data From the States**

The Adult Education and Family Literacy Act (AEFLA), enacted as Title II of the Workforce Investment Act (WIA) of 1998, is the principal source of federal support to states for adult education and literacy programs and activities (Sticht, 1998). In the act, Congress made accountability for results a central focus, setting out new performance accountability requirements for states and local programs that measure program effectiveness on the basis of student academic achievement and other outcomes.

To document these accountability requirements, the DOE and each state agreed on performance levels for each of several core indicators. In May 2002, the OVAE/DAEL released a report to the Congress and the public with performance data for Program Year (PY) 1999–2000, a transition year in which states first implemented the accountability requirements of the AEFLA (U.S. Department of Education, 2002a).

In summary, the report showed that a number of states met or exceeded their performance targets in PY 1999–2000, based on an average of their performance on the indicators required by the AEFLA. On average, 41 states exceeded their performance indicator targets for the percent of learners demonstrating improved literacy skills, 25 states exceeded their targets for high school completion, 22 states exceeded their targets for the number of learners in adult education programs going on to further education and training, 41 states met or exceeded their performance targets for learners gaining unsubsidized employment, and 39 states exceeded their performance targets for learners who retained employment or advanced on the job.

In addition to the performance data, the report revealed huge differences across the states in federal funding per enrollee. It indicated that funding for PY 1999–2000 was \$365 million, and enrollment in the AELS totaled 2,891,895. This amounts to an average of about \$126.21 per AELS enrollee across the United States. But on a state-by-state basis, the funds per enrollee fluctuate wildly, from a high of \$509.45 in North Dakota to a low of \$46.48 in South Carolina. In 12 states, the funding per enrollee was less than \$100. In 18 states, it was over \$200, and in four states, it was over \$300. The report does not address the large differences across the states in per-enrollee funding (Sticht, 2002a).

The report did not note that enrollments dropped by 1,128,655 from the 4,020,550 figure in PY 1997–1998 (Sticht, 2002b). California accounted for 979,716—or about 87%—of the drop. Not surprisingly then, given California’s large population of Hispanics, Asians, and Pacific Islanders, examination of the change in learner characteristics in PY 1997–1998 and PY 1999–2000 indicates that of the 1,128,655 drop in enrollments, Hispanics accounted for 634,378, or some 56% of the total decline of 1,128,655 from PY 1997–1998 to PY 1999–2000. Enrollments of Asian or Pacific Islanders dropped by 23.5%, Whites by 16.5%, and African Americans by 4%. No firm explanation of the decline’s cause has been forthcoming from either the states or federal government.

### **A Strategic Plan for Adult Education and Literacy**

During 2002, the DOE released a report called Strategic Plan 2002–2007 (U.S. Department of Education, 2002b). The plan includes six goals for the next 5 years. Of the six goals, two are of special relevance to the adult education and literacy field. Goal 4, transform education into an evidence-based field, includes two subgoals: 4.1, raise the quality of research funded or conducted by the DOE, and 4.2, increase the relevance of research to meet the needs of customers. The Strategic Plan says of Goal 4:

We will change education to make it an evidence-based field. We will accomplish this goal by dramatically improving the quality and relevance of research funded or conducted by the department, by providing policymakers, educators, parents, and other concerned citizens with ready access to syntheses of research and objective information that allow more informed and effective decisions, and by encouraging the use of this knowledge (especially within federal education programs). (p. 59)

The Goal 4 plans led in 2002 to the reporting of evidence-based approaches to adult reading instruction and the search for new measures of adult learning for accountability purposes.

Goal 5 of the Strategic Plan calls for enhancing the quality of and access to postsecondary and adult education and includes Subgoal 5.5, enhance the literacy and employment of American adults. To enhance adults’ literacy and employment skills, the plan calls for the DOE to fund demonstration, evaluation, research, and training activities with state and local partners. Through this means, the DOE says it will develop new models of basic education and English literacy services to help a larger percentage of

America's adult population receive the literacy skills they need for workplace learning, postsecondary learning, and lifelong personal and career growth.

As a performance measure of Goal 5.5, the Strategic Plan aims to reduce the percentage of adults in the lowest level of literacy, presumably Level 1 as measured by the National Assessment of Adult Literacy (NAAL), from an estimated 19% in 2002 to 17% in 2004 and 15% by 2006. To obtain these performance data, which will be adjusted based on the results of the NAAL of 2002, the report states that the DOE is considering a biennial assessment of adult literacy using the NAAL.

### **Funding for Adult Education and Literacy**

In April 2002, President George W. Bush submitted his Fiscal Year (FY) 2003 proposal for funding of the state grants that provide the federal share of support for the AELS (Gullion, 2002). The funds requested were \$575 million, the same as for FY 2002. The President's budget included \$9.5 million for national leadership activities in support of the AELS, the same as in FY 2002, and \$6.6 million for the National Institute for Literacy (NIFL), an increase of \$40,000. Additionally, the President's proposed budget reduced funding for Even Start from \$250 million to \$200 million, and it eliminated funding for incarcerated youth offender programs (\$15 million), prison literacy (\$5 million), and community technology centers (\$32.5 million).

In July, the Senate's proposed budget designated FY 2003 funds equal to those of FY 2002 for the state grants for the AELS, national leadership activities, NIFL, Even Start, prison literacy, and community technology centers, and it raised funds for the incarcerated youth offender program from \$17 million in FY 2002 to \$20 million in FY 2003 (Gullion, 2002).

By the end of 2002, Congress had failed to act on new budget proposals for FY 2003 and instead passed a continuing resolution that kept funding for adult education and literacy at the same levels as for FY 2002.

## **TOPICS OF SPECIAL INTEREST**

Four topics were of special interest in 2002. The first two, adult reading research and the search for improved methods of assessment of adult learning in programs, were in line with Goals 4 and 5 of the Strategic Plan 2002–2007. The third topic, issues and activities regarding race, ethnicity,

and racism in adult education, rose to prominence in response to adult literacy providers' concerns during the year. The fourth topic tracks the progress of the National Literacy Summit 2000's Action Agenda in its second year.

## **Adult Reading Research and Instruction**

The Adult Education and Family Literacy Act (AEFLA), Title II of the Workforce Investment Act of 1998, changed the 30-year direction of the Adult Education Act by taking long steps away from dealing strictly with educational policy toward influencing the practice of adult education by emphasizing certain instructional methods. In particular, it emphasizes that agencies assessing grant applications from educational providers should consider whether or not the program “. . . uses instructional practices, such as phonemic awareness, systematic phonics, fluency, and reading comprehension that research has proven to be effective in teaching individuals to read.”

The interest in adult reading instruction, supported by research in the AEFLA, has led to additional research, dissemination of new research, and the reporting of new research in scientific journals.

In 2000, NIFL and the National Center for the Study of Adult Learning and Literacy (NCSALL) formed the Adult Basic Education Reading Research Working Group (RRWG) to identify and evaluate existing research relating to adult literacy reading instruction. Their goal was to provide the field with research-based products, including principles and practices for practitioners. In late 2001, the RRWG produced two reports that reviewed research on alphabetics (decoding), fluency, vocabulary, comprehension, and computer technology. One report focuses on principles that can be derived from the research and provides a research agenda for the future. The second report focuses on instructional practices that can be drawn from the existing research base. In 2002, these reports were published by NIFL (Kruidenier, 2002b).

Maintaining the new focus on evidence-based reading instruction for adults, in 2002, NIFL, the National Institute for Child Health and Human Development (NICHD), and the DOE provided grants totaling some \$18.5 million over a 5-year period for research on adult reading processes and instruction (National Institute for Literacy, 2002b). Additionally, in a partnership with the National Center for Family Literacy (NCFL), NIFL established the Equipped for the Future (EFF) Reading Project. This project will develop a train-the-trainer model to support family literacy programs

in integrating scientifically based reading instruction and EFF's constructivist approach to teaching and learning (National Institute for Literacy, 2002a).

In a first for a peer-reviewed journal, *Scientific Studies of Reading*, the official journal of the Society for the Scientific Study of Reading, published a special issue entitled "Reading Development in Adults." The journal was edited by Richard L. Venezky and John P. Sabatini, who noted that "basic research on the reading processes of low-literacy adults is impoverished" (Venezky & Sabatini, 2002, p. 217). The journal includes four articles that explore basic processes of phonological awareness, comparisons of children's and adults' word-reading and spelling errors, adults' word-reading efficiency, and patterns of word-recognition errors among native and nonnative speakers of English in adult education programs. The editors concluded in an overview that "together, these studies do not make any major breakthroughs or overturn any cherished beliefs. . . . As the study of low-literacy adults matures, we can expect to see stronger theoretical foundations" (Venezky & Sabatini, 2002, p. 219).

A review of ongoing reading research by NCSALL and NIFL, and research reported in major journals concerned with reading, revealed the absence of reports focused on adults that provide theoretical foundations for reading considered as a second signaling system for listening—the basic idea behind teaching phonemic awareness, phonics, and fluency—or reading as the use of graphic devices such as tables, figures, charts, schedules, and other "real world" displays, such as those found on the National Assessment of Adult Literacy (NAAL). Consequently, a paper covering these topics, entitled "Teaching Reading With Adults," was prepared and made available on the Internet (Sticht, 2002e).

### **Assessing Learning in Adult Literacy Programs**

Obtaining good measures of student learning gains is one of the perennial problems facing adult basic education programs. For many years, nationally normed, standardized tests that provide measures of learning have been recognized as ill-suited for use in adult basic education (ABE) or English for speakers of other languages (ESOL) programs (Kruidenier, 2002a). One reason is that adults usually attend such programs for fewer hours—less than 100—compared to a K–12 school year of more than 1,000 hours. In the relatively brief amount of time that adults attend programs, they cannot show much gain in learning on tests designed primarily

to rank people's learning rather than to indicate how much of a specified domain of knowledge has been learned.

Because of the difficulties in using standardized, nationally normed tests in adult basic education programs, the OVAE/DAEL and NIFL asked the National Academy of Science's Board on Testing and Assessment (BOTA) in 2001 to examine the feasibility of using performance assessments to meet the requirements of the National Reporting System (NRS) for valid and comparable measures of learning related to six levels of learning gains for ABE and six for ESOL.

The BOTA released its report in 2002, indicating that ABE and ESOL faced serious challenges in using performance assessments (National Research Council, 2002). First, such assessments are difficult and expensive to develop, and most ABE/ESOL programs have neither the technical expertise nor the financial resources to develop and maintain the assessments as changes in what is taught become necessary or desirable.

Second, technical difficulties in developing such assessments may make it next to impossible to develop measures that are comparable across programs. The development of comparable performance assessments requires teaching comparable knowledge and skills content. Currently, the thousands of programs across the nation that make up the AELS do not teach the same knowledge (i.e., vocabulary, facts, principles, concepts, rules, and skills).

Third, technical methods for aligning performance assessment tasks with the NRS learning levels and for establishing their equivalence to various standardized tests or other performance assessments used to show growth in the NRS levels are either not available or, like the technique of "social moderation" (which amounts mostly to having judges guess comparability and equivalence of measurement), are of dubious value in validating learning and progression up the six NRS education levels in either ABE or ESOL.

The BOTA report suggests that using technology might be useful, but beyond the need for more research and development, it did not offer specific recommendations. It was further concluded that it might be useful if programs pooled resources or worked with established test publishers, using their resources.

As a general conclusion, the report noted, regarding the particularly vexing problems of developing validity and comparability across the performance assessments of different programs and different states, "Greater comparability could be achieved through standardization (i.e., same content standards and tests across states), but it would come at the cost of



decreased flexibility at the program or state level in choice of assessments. Thus the tradeoffs need to be kept in mind” (p. 102).

The BOTA project has provided advisory input to the NIFL’s ongoing EFF project, which for several years has been engaged in developing content standards and performance assessment procedures for measuring learning in ABE and ESOL programs. This work, some conducted in cooperation with the NRS of the DAEL, involves ABE and ESOL practitioners in developing an approach to performance assessments that is based on the EFF framework of 16 content standards. Reports on the EFF content standards and assessment projects can be found at the EFF special collection pages on the Web (National Institute for Literacy, 2002b).

### Race, Ethnicity, and Racism

In 1993, the report of the National Center for Education Statistics on the findings of the National Adult Literacy Survey (NALS) presented data for three types of literacy scales—prose, document, and quantitative—and five levels of literacy for each type, with Level 1 the lowest level of literacy for each of the three types (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993).

Table 1.1, Column 2 presents data from the NALS prose literacy scale showing the percentages of various racial and ethnic groups in the lowest level of the prose literacy scale. In all cases, minorities had anywhere from

TABLE 1.1  
Racial and Ethnic Group Membership in Relation to Performance  
on the National Adult Literacy Survey (NALS) and Enrollment  
in the Adult Education and Literacy System (AELS) of the United States

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>
<i>Racial/Ethnic Group</i>	<i>Percentage in NALS Prose Level 1</i>	<i>Percentage of NALS Prose Level 1</i>	<i>Percentage of the AELS in 1980</i>	<i>Percentage of the AELS in 2000</i>
White	14	51	46	34
African American	38	20	22	21
Hispanic	50*	23	22	36
Asian/Pacific Islander	36	4	9	7
Native American/Alaskan Native	25	1	1	1

\*This is the weighted average for five categories of Hispanics.

twice to more than three and one half times the percentage of adults in the lowest level of prose literacy as Whites. Findings for document and quantitative literacy were similar to those for the prose scale.

Whereas Column 2 of Table 1.1 shows the percentages of each ethnic group who scored in Prose Literacy Level 1, Column 3 shows the percentage of adults in Prose Literacy Level 1 who were of each race/ethnic group. Thus, thinking of all the adults of each ethnic group in the United States, only 14% of White adults in the nation were in Prose Literacy Level 1 (Column 2). But when considering just the adults in Level 1 who are of each ethnic group, Whites made up 51% of those in the lowest literacy level (Column 3). African Americans and Hispanics each made up about 20% of the Level 1 adults, Asian/Pacific Islanders made up about 4%, and Native American/Native Alaskans were around 1% of the least literate.

Column 4 shows the distribution of ethnic group members in the AELS in 1980, when about 2 million adults enrolled in the AELS, and Column 5 shows the distribution for 20 years later, in 2000, with some 2.9 million enrollments. The data indicate that from 1980 to 2000, the proportion of adults enrolled in the AELS fell over 20% for Whites and Asian/Pacific Islanders, stayed about the same for African Americans and Native American/Alaskan Natives, and rose by some 63% for Hispanics.

Interestingly, the data of Table 1.1 indicate that although Whites make up more than half of the least literate in the nation (Column 3), they were underrepresented in the AELS in 2000, whereas Hispanics appear to be overly represented in relation to their distribution in Prose Literacy Level 1 (Column 3).

In the AELS, the primary criterion for program funding is the percentage of adults without high school diplomas in each state or territory. Based on this criterion, in the 2000 population age 15 or older, there were some 45,485,846 youth and adults without a diploma (U.S. Census, 2000). Of these, 57% were White, 24% Hispanic, 15% African Americans, and 4% others. Using this criterion, it seems once again that Whites are underrepresented in the AELS, whereas other racial and ethnic groups are overrepresented.

Looking at each racial and ethnic group separately, Hispanics are the most in need of the AELS services because 47% of those over the age of 15 lack a high school degree or GED. This contrasts with 28% of African Americans, 20% of Asian/Pacific Islanders, and 17% of Whites who lack these educational credentials.

Data such as those of Table 1.1, Column 2, showing that a disproportionate percentage of minorities have very low literacy skills, and the data

on lack of high school credentials among minorities, have suggested to many literacy practitioners that more needs to be done to combat racism as a source of inequality in education and literacy. During 2002, the meetings of the Commission on Adult Basic Education (COABE) in Charleston, South Carolina, and ProLiteracy Worldwide (made up of the merged Literacy Volunteers of America and Laubach Literacy International organizations) in San Diego, California, showcased institutes, workshops, and roundtables to allow adult educators to discuss and raise their consciousness about issues of racism and their relationships to participation in adult literacy education (Corley, 2002).

Numerous messages discussing issues related to race and racism were posted to the National Literacy Advocacy (NLA), English as a Second Language (ESL), and Poverty, Race, and Literacy (POVRACLIT) discussion lists in February and March of 2002. These discussions were initiated by Isserlis's (2002) message to the ESL electronic list related to a concern about the annual COABE conference being held in South Carolina, where an NAACP (National Association for the Advancement of Colored People) boycott was in place to discourage tourists and conventioners from spending money in the state. During the year, discussions on Internet lists led a number of adult educators to call for developing adult instructional programs leading to higher levels of literacy; greater tolerance of racial, ethnic, and other differences among adults; and greater social justice in housing, criminal justice, medical, and other areas in which racial and ethnic factors may lead to discriminatory and unjust practices against adult learners and others.

### **National Literacy Summit 2000 Action Agenda Year 2**

In September 2000, the National Literacy Summit 2000 steering committee launched an Action Agenda for literacy (National Institute for Literacy, 2000). The Action Agenda called for a system of high-quality education services for adult students with ease of access to these services and sufficient resources to support quality and access. The goal was to improve the adult education and literacy system by 2010. Two years into the Action Agenda, it is not clear how much has been achieved.

The Summit steering committee presented no information during the second year of the Action Agenda. Therefore, there was no way to judge whether or not there has been an increase or improvement in the quality of services for adult students in any programs of literacy provision. No information was forthcoming to indicate whether or not access to adult

education and literacy development services has improved over the last 2 years.

In terms of resources, the Action Agenda in September 2000 included the goal of persuading Congress to raise appropriations for the AELS to \$1 billion by the year 2010. But as already noted, no new budget was in place for FY 2003 at the end of 2002, and funding for the AELS was continued at the same \$575 million level as for FY 2002. There was no movement in the direction of the Action Agenda target of \$1 billion for the AELS as of the end of 2002.

To understand how the effectiveness of the National Coalition for Literacy might better accomplish its goals for advocacy, including improving the achievement of the goals of the Action Agenda, the Coalition sponsored a study of its workings by the Council for Advancement of Adult Literacy (CAAL). The major recommendation of the study was that the Coalition needed to become a nonprofit organization that could provide full-time professional support to its advocacy activities (Chisman, 2002). By the end of the year, the National Coalition for Literacy had followed this recommendation and was restructuring as a nonprofit organization.

## TRANSITIONS

In January 2002, the OVAE/DAEL announced that Dr. Ronald Pugsley, who served for 12 years as director of the Division of Adult Education and Literacy (DAEL), was leaving that position to become the Assistant Secretary's senior advisor on international education. During Pugsley's tenure, funding for the AELS rose from \$258 million to \$575 million in constant 2001 dollars. He initiated numerous major activities, of which the National Adult Literacy Survey and the National Reporting System are perhaps the best known and most controversial. Replacing Pugsley as the DAEL director during the year was Cheryl L. Keenan, former director of the Bureau of Adult Basic and Literacy Education in Pennsylvania. Well known to the adult education community, Keenan brings a wealth of practical experience in implementing the accountability and other requirements of Title II, the Adult Education and Family Literacy Act of the WIA, at the state level. This experience is expected to be of value in formulating revisions to the WIA when it is renewed.

The field of adult literacy lost a great professional and activist when Susan Green of the National Institute for Literacy passed away in March. She was a long-time associate of former First Lady Barbara Bush and for

more than a quarter century was instrumental in helping formulate a wide array of adult literacy activities and programs both inside and outside the federal government. Her legacy lives on in a Susan Green Memorial Fund established to benefit VALUE (Voice of Adult Literacy United for Education), an organization of adult learners (EFF list, 2002, March 1, <http://literacy.nifl.gov/nifl-4eff/2002/0092.html>).

## CONCLUSION

After 35 years of growth and development of the AELS, many adult educators across the nation took time to recognize and celebrate the work of hundreds of thousands of their colleagues and tens of millions of adult learners. Their efforts have made the AELS a viable component of the U.S. public education system. However, there is still a need for a wider audience, including policymakers, to have a greater understanding and recognition of the AELS as a major contributor to our nation's education goals. This was indicated by the fact that 2002 was the second year in a row in which those responsible for formulating the education policies and funding requests for the Bush administration did not request additional funds for the AELS.

Whether the field will be successful in raising awareness of the AELS and other adult education and literacy providers in the future is not clear. The National Literacy Summit 2000 Action Agenda—the major hope for the field's advancement in the last two years—appeared moribund in 2002. Despite activities during the year to improve the quality of education in the field, including research on more effective approaches to teaching reading with adults, better learning assessment methods, and attempts to confront issues of ethnicity and racism, it will be difficult to bring about any new changes in educational practices without large increases in funding. But media reports throughout the year of looming budget deficits at both federal and state levels lead one to suggest that large increases in funds for adult education and literacy development will not be forthcoming in the near future. Instead, just holding on to what the field already has may be the best that can be achieved in these hard times.

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# Adult Literacy Policy, Scientifically Based Research, and Evidence- Based Practice

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Larry Mikulecky

### INTRODUCTION

Legislators, policymakers, and funders of programs and services in health care, social service, and, most recently, education have employed the terms *evidence-based practice* and *scientifically based research* in determining which programs and practices to fund. Within the past year, adult literacy educators have begun to see these terms appear in national and state guidelines for program funding. In its simplest form, the use of these terms indicates that programs should not be funded unless the practices they employ are supported by research (evidence-based practice) and unless that research was conducted according to specific scientific guidelines (scientifically based research). In short, these two terms mean that adult educators are being asked to conduct research in a “scientific” way to generate appropriate evidence about what works, and then use that evidence in their practice.



Debates over what counts as scientifically based research make the issue much more complex and political. To date, there is no single, precise, universally accepted definition of scientifically based research. Disagreements usually revolve around standards for evidence. At one end of a continuum is a 200-plus-word definition of scientifically based reading research that has been written into law (see pages 4–5 of this volume). The U.S. Department of Education (Orland, 2002) has elaborated on this definition, indicating that randomized trials (random assignments to conditions) with a control group are the gold standard for scientifically based research. At the other end of the continuum are broader definitions of science, such as Berliner's citation of Percy Bridgeman, who in 1947 said that there is no scientific method, merely individuals "doing their damndest with their minds, no holds barred" (Berliner, 2002). From these perspectives, scientifically based research includes a much broader array of research.

In the United States, federal funding of literacy education and research has been linked to increasingly empirical definitions of scientifically based literacy research. The legislated federal definition of scientifically based reading research is found in the Reading Excellence Act of 2000 (U.S. Department of Education, Office of Elementary and Secondary Education, 2002) as well as the No Child Left Behind Act of 2002 (U.S. Department of Education, 2002a) and has been refined and narrowed still further in the U.S. Department of Education's strategic plan for 2002–2007.

Several social forces are driving the use of evidence-based practice and scientifically based research as tools for program funding. Among these forces are:

- A society-wide push for quality control.
- The desire for rational tools to inform funding reallocations and cuts.
- Growing skepticism among taxpayers and the public about the value of what their taxes fund.

In the area of education, and literacy education in particular, this movement toward accountability has become entangled with political battles over definitions of evidence and which educational practices do or do not have the required sorts of evidence. For adult literacy practice, the debate is further complicated by the fact that only a small number of research studies specifically related to adult literacy have been done (compared to the research on children's literacy that is funded) and that even fewer of these studies meet some criteria for scientifically based research.

This chapter examines what scientifically based research has meant in a variety of contexts before focusing more specifically on what federal

definitions of scientifically based literacy research mean and are likely to mean for adult literacy education and research. Responses of several professional organizations to calls for scientifically based research are considered, as are scholarly analyses of the roles research can and cannot effectively play in informing policy decisions. As adult literacy organizations have not officially responded or offered commentary on the move toward scientifically based research, postings offered on the National Institute for Literacy (2002) listserv are used to highlight a variety of perspectives among adult literacy educators and researchers. The chapter concludes by focusing on recent efforts to catalogue what scientifically based research has to say about adult reading instruction and by suggesting how adult literacy educators and researchers might respond to recent legislation and the U.S. Department of Education strategic plan most productively.

## **WHAT IS SCIENTIFICALLY BASED RESEARCH?**

The movement toward making policy and funding decisions using information with the pedigree of scientifically based research did not start with education and is not limited to the United States. For example, over the past 10 to 15 years, market reforms in health care delivery have focused on the effectiveness of hospitals and mental health care. Governments, insurance providers, and health maintenance organizations have developed guidelines for subsidized treatments based on synthesis studies of treatment effectiveness. Davies, Nutley, and Smith (2000) make a case for scientifically based approaches to policy and funding in health care, education, criminal justice, social care, welfare policy, housing, transportation, and urban policy. In England, Evans and Benefield (2001) report the Secretary of State for Education and Employment as stating:

Social science should be at the heart of policymaking. We need a revolution in relations between government and the social research community—we need social scientists to help determine what works and why, and what types of policy initiatives are likely to be most effective. (Blunkett, 2000, cited in Evans & Benefield, 2001, p. 527)

In relation to literacy education practices in the United States, the National Reading Panel (NRP) review of research related to reading instruction at K–12 levels established a set of “evidence-based methodological standards” (NRP, 2000, p. 2) for selecting research studies on the effectiveness of various instructional practices. The guidelines for

acceptable studies are extensive and woven throughout the first 30 pages of the publication. Criteria for accepted studies include: (a) having reading as an outcome measure; (b) being published in English in a refereed, peer-reviewed journal; and (c) using an experimental or quasi-experimental design with a control group, or a multiple-baseline method (NRP, 2000, p. 5).

Findings and language from the NRP study shaped language and definitions appearing in the federal Reading Excellence Act of 2000. The Reading Excellence Act Web site indicates that the legislation authorizes the U.S. Department of Education to improve literacy in several areas and that it “base instruction, including tutoring, on scientifically based reading research” (U.S. Department of Education, Office of Elementary and Secondary Education, 2002). Under Title VIII, Section 2252, Definitions of the Reading Excellence Act, criteria of scientifically based reading research are provided. They are:

The term “scientifically based reading research”

- a. means the application of rigorous, systematic, and objective procedures to obtain valid knowledge relevant to reading development, reading instruction, and reading difficulties; and
- b. shall include research that:
  - i. Employs systematic, empirical methods that draw on observation or experiment.
  - ii. Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn.
  - iii. Relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations.
  - iv. Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

Grover “Russ” Whitehurst, Assistant Secretary of the U.S. Department of Education’s Office of Educational Research and Improvement, has spoken in support of the federal move toward using scientifically based research in education. Whitehurst indicates:

Something needs to be done differently in education, and if it’s based on science it’s more likely to be cumulative and produce serious change. We want to see objective research in education that’s as rigorous as topics in health and medicine. . . . We would like to see less of the type of research that is advocacy research, where the answer is determined before the research is conducted. (Murray, 2002, p. 53)

In February 2002, the U.S. Department of Education hosted a seminar entitled “Inside Scientifically Based Research” at which several commissioned papers were presented and discussed. The seminar and papers elaborated on the logic and basic principles of scientifically based research and went on to address its specific application to math education, early reading education, safe and drug-free schools, and comprehensive school reform. It is not possible or appropriate in this chapter to address all aspects covered in the forum. It is worth noting, however, that the papers did not contradict the legislative definition of scientifically based research (U.S. Department of Education, 2002b).

### **THE BROAD INTERNATIONAL PRESENCE OF EVIDENCE-BASED PRACTICE**

A key force pushing the use of evidence from scientifically based research to guide literacy education practice is the seemingly ubiquitous use of this approach in many other areas of human activity. Scientifically based research has become part of the zeitgeist of the developed world. As mentioned previously, the joining of policy to synthesis studies of scientifically based research precedes its application to literacy education and extends beyond the United States. For much of the past decade, government agencies and consortia of professional associations have been systematically producing evidence-based practice guidelines for policymakers, members of professional associations, and consumers of products and services. An Internet search using the phrase “scientifically based research” produces over 300,000 postings. Although heavy on health care topics, postings and publications also address education, technology, business practices, social services, and criminal justice.

Since 1997, Durham University in England has hosted biennial international conferences to examine evidence-based policies and indicator systems. Special focus has been given to anthropology, business, education, government, health research, medicine, psychology, and policy studies (Fitzgibon, 1999). These conferences draw speakers from Australia, Belgium, Canada, the United States, the Netherlands, England, Wales, Scotland, and Ireland (University of Durham, 2003). By 1999, the Economic and Social Research Council, the United Kingdom’s largest funding agency for research and postgraduate training in social and economic issues, launched the Evidence-Based Policy and Practice Initiative to

develop a comprehensive scientifically based research network with research units covering policy issues on public health, children, economics, ethnic health, neighborhood (i.e., community) research, social care (i.e., welfare), and research utilization (Economic and Social Research Council, 2003). In Australia, the National Health and Medical Research Council (NHMRC, 1999) published an evidence-based strategy for youth suicide prevention based on a systematic literature review. Several dozen Australian universities, colleges, and hospitals have set up Web sites providing access to information on evidence-based practice in areas related to physical health, mental health, nursing, dentistry, veterinary medicine, clinical practice, and education. In the United States, the Agency for Healthcare and Research Quality, in conjunction with the American Medical Association and the American Association of Health Plans, sponsors the National Guidelines Clearinghouse (NGC; U.S. Department of Health and Human Services, 2003). The NGC is a comprehensive database of evidence-based clinical practice guidelines and related documents. The NGC publishes evidence-based practice guidelines on dozens of topics, makes these guidelines available over the Internet, and provides updated information through a regular newsletter and electronic forum. The Agency for Healthcare Research and Quality has funded 12 Evidence-Based Practice Centers whose goal is to develop evidence reports and technology assessments on clinical topics that are common, expensive, or significant for the Medicare and Medicaid populations. The overall goal is to improve the quality, effectiveness, and appropriateness of health care by facilitating the translation of scientifically based research findings into clinical practice (Agency for Healthcare Research and Quality, 2003).

### **POLITICAL CAMPS IN THE “READING WARS”**

In the United States, the increased federal emphasis on scientifically based research for funding literacy efforts, based on evidence from such research, appeared after more than a decade of academic debate about how schools and teachers should deal with literacy. These debates mainly focused on the early reading education of children, but there has been some carryover to teaching beginning reading to adults. To the public, the debate appeared to be between two camps of scholars:

- Advocates of holistic approaches to learning literacy that built on the learner's interests, heavily employed literature and authentic (i.e., nonschool) materials, and called for learners to use reading and writing

to accomplish “authentic” tasks such as writing stories, producing newspapers, or preparing projects.

- Advocates of more direct instruction in aspects of literacy, such as phonemic awareness (i.e., recognizing letter–sound relationships, rhyming, etc.), using phonics as a code-breaking strategy, vocabulary development, and strategies (i.e., summarizing, predicting, comparing, etc.) for improving reading comprehension.

During much of this polarized debate, scholars and classroom teachers called for more balanced approaches and recognition that both camps could generally agree on what constituted good instruction (Aihara, Au, Carroll, Nakanishi, Scheu, & Wong-Kam, 2000; Fitzgerald, & Noblit, 2000; Freppon & Dahl, 1998).

### **THE NATIONAL READING PANEL (NRP) STUDY**

In 1997, political pressures to resolve the debate and provide guidelines for evidence-based reading practice similar to those in health care led Congress to request that the National Institute of Child Health and Human Development (NICHD) consult with the U.S. Department of Education “to convene a national panel to assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read” (NRP, 2000, p. 1). Many outside the literacy field saw the NRP as a means to sort through contradicting scholarly claims. However, studies of holistic reading approaches tended to employ more qualitative methods, and studies of direct instruction were more likely to employ traditional experimental and quasi-experimental designs. Therefore, conversations at professional conferences and concerns expressed at NRP open forums indicated that experimental research constituted the criterion for choosing studies to review. Some within the field saw the work of the NRP as a means to elevate one side of the debate and undercut the other.

The NRP (2000) study employed an approach for sorting through thousands of reading research studies, attempting to parallel scientifically based research syntheses and statistical meta-analyses in health care and social service. Studies selected for the meta-analysis needed to meet several criteria, including adequate description of participants, interventions, methods, and outcome measures. In addition, studies needed to provide sufficient information to allow computation of effect sizes. To then do a meta-analysis of an intervention’s effectiveness required a sufficient

number of qualifying studies (usually four to five) using similar interventions with comparable groups. Effects were analyzed using three effect sizes (i.e., .20 = small, .50 = moderate, and .80 = large). The requirements for qualification for the meta-analysis greatly reduced the number of studies included in the NRP study. For example, of 1,962 studies addressing alphabetics, only 52 qualified, and of 1,260 studies addressing fluency, only 14 qualified. Of the 350 studies addressing the use of computer technology, 21 qualified, but a meta-analysis was not possible because the studies were spread over too many different grade levels and interventions.

The NRP study reported information in the categories of strategies found effective for teaching alphabetics; reading fluency; reading comprehension, including vocabulary; and, to a lesser extent, for using computer technology in reading instruction. The studies within each category were organized to support several dozen approaches to teaching various aspects of reading. For example, four different approaches to teaching phonics were all found equally effective as long as the approaches were taught systematically. Strong and moderate effects were also reported for several strategies to teach fluency, vocabulary, and comprehension. More limited recommendations were made for the use of computer technology in the teaching of reading because of the inability to do meta-analyses. Many other approaches schools commonly use were excluded from the analysis because there were too few qualifying studies to document their effectiveness. The scholarly discussion in the 480-page NRP subgroup report expands on gradations of evidence (i.e., correlations but not experiments) and areas in which evidence was not available. The distillation of these expanded discussions to a 35-page summary document became a list of reading instruction approaches endorsed by a sufficient number of qualified research studies. Some approaches made the list, but many did not.

As mentioned previously, language from the NRP study and findings were incorporated into legislation and funding guidelines within months of the study's release. It took a bit longer for the scholarly community to analyze the NRP findings, as well as the move toward scientifically based research, and respond.

## **RESPONSES OF PROFESSIONAL ORGANIZATIONS**

There has been no official response to definitions of scientifically based research from adult literacy professional organizations (i.e., the American



Association of Adult and Continuing Education and the National Coalition for Literacy). There have been responses, however, from the National Reading Conference (a professional association of literacy researchers), the International Reading Association (a professional association of reading educators), and the American Psychological Association. Members of the literacy organizations concerned with children's reading had been aware of the move toward scientifically based research through the workings of the NRP in the late 1990s and with the publication of the NRP report in 2000. The American Psychological Association has been asked to play an advisory role in helping to devise legislated definitions of scientifically based research.

### **National Reading Conference Response**

The National Reading Conference (NRC) commissioned Pressley (2001) to analyze the NRP study and prepare a response from the NRC. Pressley's main criticisms were not so much related to the NRP's findings, which he found credible, as they were to what he felt the NRP ignored. He noted that the NRP, by deciding to employ a statistical meta-analysis approach, in essence "decided early in its process to focus on only a very few topics and limit its review to experimental and quasi-experimental evidence" (Pressley, 2001, p. 2). The meta-analysis decision meant that the NRP ignored some studies that were scientifically validated by its criteria if there were too few studies in that area to perform a statistical meta-analysis. Pressley maintained that this excluded well-designed studies (because there were only two or three per topic) related to home storybook reading, television effects (e.g., Sesame Street or captioning), community resources, whole language, language of instruction, and school reform movements. The statistical meta-analysis approach automatically excludes newer topics and approaches that have been examined by only a few studies, even if those studies are scientifically based (i.e., experimental and with adequate sample sizes).

Pressley's analysis also decried the exclusion of qualitative research. He noted that the exclusion of well-performed qualitative research prevents the inclusion of very useful information about how effective instruction is organized and executed. Similar criticisms were made in a minority report written by Yatvin (NRP, 2000), a member of the NRP and a reading educator in Oregon.

In an earlier paper commissioned by the NRC, Purcell-Gates (2000) responded to the exclusion of qualitative and ethnographic research from



the NRP study and from legislated definitions of scientifically based research. She made the point that many important educational questions simply cannot be answered by placing people in randomly assigned treatment and control groups for both ethical and logistical reasons. She indicated that qualitative and descriptive research, however, provides information useful for policy development about such questions as: “What knowledge do teachers draw upon or use to inform their practice? What opportunities exist for learning, at both classroom and school levels? How do social interactions among students influence their learning to read?” (p. 6).

### **International Reading Association Response**

The International Reading Association (IRA) did not respond directly to the NRP report, but adopted a lengthy policy position statement entitled *What Is Evidence-Based Reading Instruction?* (IRA, 2002). The IRA policy statement parallels the NRP report in stating that evidence should be objective, valid, reliable, and refereed, but it does not limit evidence to experimental or quasi-experimental studies, nor to reading instruction approaches supported by the five or more studies required to qualify for a statistical meta-analysis. The statement takes care to distinguish between literacy instruction *practices* and *programs*, noting that the practices of providing direct instruction in several ways for decoding and reading comprehension are supported by evidence, but evidence supporting a particular reading program is usually mixed. In fact, most large studies of program differences reveal as much or more difference between teachers using the same program than average differences between programs. The statement goes on to list 10 strategies for reading instruction that the IRA views as evidence-based and concludes by providing an extensive list of resources and information about reading instruction strategies supported by research.

### **American Psychological Association Response**

The American Psychological Association (APA) has established a presidential task force on psychology and education. Chaired by Robert Sternberg, the task force plans to explore how teaching and learning in schools can be restructured to better help all children learn. In addition, existing APA divisions (i.e., Division 15: Education and Division 16: School and

Society for the Study of School Psychology) will be producing research-review criteria and research-based guidelines for practice. “The effort is inspired, in part, by an APA Division 12 (Society of Clinical Psychology) project that identified research-based clinical interventions” (Murray, 2002, p. 54). In addition, staff from the APA’s Public Policy Office have provided guidance in shaping legislative definitions of scientifically based research, supporting attention to objective procedures and empirical methods. According to the APA *Monitor on Psychology*, the next step is for the APA Public Policy Office to focus on “psychology’s contribution to teacher preparation, and again, the definition of scientifically based research” (Murray, 2002, p. 54).

### **A Comparison of Responses**

Writings from literacy organizations (i.e., NRC and IRA) call for expanding what counts as evidence to include evidence generated by both well-done qualitative research and research on newer topics that have not yet accumulated enough studies to meet the criteria of statistical meta-analyses. The IRA position statement goes on to specify criteria and definitions of what constitutes acceptable evidence. These criteria indicate that acceptable evidence should be:

- Objective: Data would be identified and interpreted similarly by any evaluator.
- Valid: Data adequately represent the tasks that children need to accomplish to be successful readers.
- Reliable: Data will remain essentially unchanged if collected on a different day or by a different person.
- Systematic: Data were collected according to a rigorous design of either experimentation or observation.
- Refereed: Data have been approved for publication by a panel of independent reviewers. (IRA, 2002)

The APA has not taken an official position in relation to scientifically based research. Murray (2002), who writes for the organization in its official publication *Monitor on Psychology*, indicates that the APA has had a strong role in shaping the current definition of scientifically based research and that it has supported attention to objective procedures and empirical methods.

## **FUNDING AND SCIENTIFICALLY BASED RESEARCH**

Definitions of scientifically based research have been embedded into federal legislation and specifications for what sorts of research, programs, services, and materials may receive federal funds. In fact, use of scientifically based research is highlighted as a major purpose of the No Child Left Behind Act of 2002, as articulated in purpose “(9) promoting school-wide reform and ensuring access of children to effective scientifically based strategies and challenging academic content” (U.S. Department of Education, 2002a, p. 16). The term “scientifically based research” appears 122 times throughout the legislation, in relation to nearly every provision of the law. A typical example is the provision for professional development in reading instruction specifying that professional development “shall include information on instructional materials, programs, strategies and approaches based on scientifically based reading research” (U.S. Department of Education, 2002a, p. 127). Similar requirements are specified for materials and training provided to tutors, parents, and those participating in family literacy programs.

The U.S. Department of Education’s Strategic Plan for 2002–2007 also highlights scientifically based research in Strategic Goal Four: Transform Education into an Evidence-based Field (U.S. Department of Education, 2002c, pp. 58–63). Performance targets are set for research funded by the U.S. Department of Education. For example, by 2004, 95% of all funded research must be “deemed of high quality by an independent review panel of qualified scientists” (U.S. Department of Education, 2002c, p. 61). These scientists are not to be the same as the peer review panel, and the performance target is to include “all research and evaluation studies initiated by any office within the department, but would exclude collections of statistics” (p. 61). To make intentions perfectly clear, the plan goes on to specify that by 2004, 75% of funded projects that address causal questions will employ randomized experimental designs.

The strategic plan goes on to set up parallel performance targets for the dissemination and use of information from scientifically based research studies. For example, the plan specifies that the U.S. Department of Education “will create and maintain an online database of quality research on topics relevant to educational practice” and “will create and distribute user-friendly syntheses of quality research that bear on significant problems in educational practice” (U.S. Department of Education, 2002c, p. 62). In addition, the department charges itself with creating a variety of guides “on how to engage in evidence-based education” (p. 62).

The federal government's clear intent to fund predominantly scientifically based research and programs guided by such research is likely to have a major impact on educational research and practice. Shortly after the release of the U.S. Department of Education's five-year Strategic Plan, an editorial addressing the plan and its implications appeared in the *Journal of Curriculum and Supervision* (Davis, 2002). It notes: "In the past, educational researchers adopted and shifted their research paradigms and techniques on the basis of scholarly exposition, demonstration, and persuasion. In the current scene, on the other hand, bureaucratic mandates supersede the reasonableness of research options" (Davis, 2002, p. 277). He goes on to elaborate on the new emphases, observing that educational research:

will not be so much interested in meanings, the interpretations of programs in practice and of students in particular contexts, as it will be concerned to have met established "scientific" criteria. It will seek causal relationships and replicable practices that can be advocated as remedies. (Davis, 2002, p. 277)

He predicts that scholars will subject the strategic plan "to penetrating, likely ruthless criticism" (Davis, 2002, p. 277) and some will attempt to do research without federal support, but their underfunded efforts will be few and their results will be ignored by official programs.

*The Educational Researcher* (Berliner, 2002) provided a forum for several commentaries on the federal definitions of scientifically based research. Berliner questioned the federal government's narrow definition of science and went on to observe that limiting educational research to control group studies is not wise because of the myriad of interactions involved in educational achievement, the history of greater variation among practitioners of a teaching strategy than between groups using different strategies, and the difficulty of compiling research results over decades because of such societal changes as stance toward race and gender. Feuer, Towne, and Shavelson (2002), who were involved in writing the NRP study, addressed several criticisms of the study but also indicated that, like all research, the NRP should be debated and discussed rather than be seen as the final word on what works with reading instruction.

## THE HISTORY OF LITERACY RESEARCH

Legislating language to define which research is acceptable for supporting instructional practice is a striking change from the ways in which research

has previously informed classroom instruction and government policy. In past decades, research addressed questions about how literacy is practiced and how literacy learning occurs. It examined forces that facilitate or inhibit literacy learning in particular contexts and situations, using the tools of cognitive psychology, linguistics, sociology, anthropology, literary studies, and several other disciplines. The goal has nearly always been to understand more clearly how the complex process of becoming literate can occur. This body of knowledge was intended to inform, but not direct, instructional approaches. Indeed, the process of how individual teachers and learners work together most effectively has consistently been understood as a balance between the science of using effective teaching and learning strategies and the art of being able to match teaching approaches to the complexities of individual learners and situations, as well as to the particular strengths of the teacher.

### **Lessons Learned Three Decades Ago**

During the 1960s, attempts were made to employ the models used in agricultural research to determine which reading programs yielded the most in terms of learner gains. In the mid-1960s, the federal government funded Bond and Dykstra (1967, 1997) to examine the impact of several prominent reading programs on the reading improvement of children in first grade. The impetus for this research was an attempt to use scientifically based research to determine what works. The study, like the NRP study, found that systematic teaching of decoding and word-study skills was preferable to ad hoc approaches.

Through most of the 1970s, discussions at literacy conferences and in major literacy journals continued to address the limitations of traditional experimental and quasi-experimental research in educational settings. For example, Farr and Weintraub (1975), in an editorial in *Reading Research Quarterly*, made the following comments about reading research:

What has brought about a situation in which researchers do not have the tools, techniques, methodologies and approaches to help them study the problems that are important to the reading field? It seems that it may be the result of methodological incarceration. Methodological incarceration occurs when research and investigation are restricted by the traditional concepts of how a study should be designed as well as those which dictate what research is. (p. 1)

The editorial went on to suggest borrowing methodological techniques from anthropological research and mentioned the impact and insights

derived from the early, nonexperimental case studies performed by Strang and Gray. Farr and Weintraub (1975) further noted that problems and conflicts:

arise from the differences between the goals of good research and the goals of funding agencies. Funding agencies need answers to specific questions; they need to report to their clients that the research efforts are paying dividends in terms of specific improvements in instruction; and usually they need to show these specific results in a very short period of time. On the other hand, the goals of good research should include encouraging more thinking, grappling with issues as they arise and pursuing topics whether they lead to specific instructional solutions or not. (p. 3)

In a response to this editorial, Fay (1975) called for more teacher research that focused on a particular classroom and group of children. He noted:

Every teacher is in a position to be an experimenter, to move beyond custom and impulse, and to test research knowledge in his classroom . . . the teacher's basic purposes are close at hand, and he need not be concerned with generalizing beyond his own experience. The teacher is concerned with *his* professional growth and *his* children. (p. 1)

Throughout the next two decades, literacy research grew, drawing on the insights of qualitative research studies, studies using mixed methodologies, and experimental design studies. Teacher research has also grown and added to the knowledge base. In many ways, recent legislation and government policies specifying which methodological approaches may be funded and used to inform instruction may ignore the reasons and rationales of three decades ago for adding other research approaches to the experimental approach.

### **WHAT AN EMPHASIS ON SCIENTIFICALLY BASED RESEARCH AND EVIDENCE-BASED PRACTICE MEANS FOR ADULT LITERACY RESEARCH AND EDUCATION**

Much of the funding for adult literacy programs comes from federal monies passed through the states. In 1999 federal and state governments allocated a total of \$1.1 billion for adult basic education service delivery. Slightly less than half of these funds came as grants from the federal government

to the states. To receive funds, a minimum 25% state match is required. State matches ranged from 25% in Mississippi, Texas, and Tennessee to a 91% match for California, with most states contributing in the 30% to 40% range (Alamprese, 2002). Receiving federal monies most often entails incorporating exact language from federal legislation into state guidelines and directives. The repeated use of the term *scientifically based research* in federal specifications has guaranteed that the concept will remain intact as monies move through state programs. (See, for example, California's *No Child Left Behind Program Guidelines*, California State Board of Education, 2002.) Adult educators seeking state or federal funding for family literacy programs are now required to indicate how scientifically based research is being used for instruction and program development. Adult literacy researchers seeking federal research support will need to adjust their study designs to address definitions of scientifically based research. Qualitative researchers will be competing for vastly diminished funding.

What scientifically based research means to the field of adult literacy is discussed in this section using information from two sources. In the absence of positions and commentary from adult literacy organizations, samplings of the thoughts and opinions of adult educators and researchers are drawn from a lengthy discussion of this topic on the National Literacy Advocacy listserv of the National Institute for Literacy.<sup>1</sup> This listserv analysis is followed by a review of efforts to determine evidence-based principles and practices for adult reading instruction by a joint research group supported by the National Institute for Literacy (NIFL) and the National Center for the Study of Adult Learning and Literacy (NCSALL).

### **A Sampling of Thoughts and Opinions on Scientifically Based Research and Evidence-Based Adult Literacy Practice and Policy**

During April and May 2002, the topic of evidence-based practice in adult literacy, and evidence qualified to inform practice, was discussed extensively on the National Literacy Advocacy listserv of the National Institute for Literacy. (The full archives of this discussion can be found at <http://www.nifl.gov/lincs/discussions/nifl-nla/nla.html>)

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<sup>1</sup> Authors of specific listserv postings are not identified in this section because it is the nature of a listserv to allow anonymity if writers desire. Although many writers indicate their identity, some employ the use of Web names and pseudonyms, making it impossible to be consistent in naming authors.

In April, writers expressed concerns that only one sort of evidence (evidence from empirical, experimental research) would be considered acceptable and that this move toward scientifically based research was highly political. The democratic nature of adult education (i.e., the predominant focus on adult goals rather than mandated reading skill goals) was mentioned as one way that adult literacy education differed from children's schooling. Several writers called for a more eclectic approach to criteria of evidence and for dialogues across research traditions that would allow qualitative case studies to inform later control group studies. Demetron, manager of a community-based volunteer literacy program, hoped "for a profound and balanced eclecticism where methodology is placed in its proper role in helping to shed light on the content of scholarship."

In early May, John Comings, director of the National Center for the Study of Adult Learning and Literacy, reanimated the discussion by posting an essay expressing the view that the political nature of the term *scientifically based research* should not prevent the field from considering its value. Comings went on to describe various stages of the research process during which different sorts of research are needed as hypotheses are developed, tested, and refined. He observed, "Evidence-based education will require support to research that is sufficient, in terms of funding and duration, and that encourages interaction and cooperation among researchers." He also differentiated between types of research viewed as acceptable and the overall concept of practice being based on evidence, whatever its source, suggesting a need to reach some form of consensus on the purposes of adult literacy and concluded, "I feel we should accept evidence-based education (while defending it against inappropriate use as a political tool) and fight for a piece of the pie."

Comings' posting was praised for its thoughtfulness, openness to a broader definition of evidence, and sensitivity to the complexities of the research process. It also sparked much more detailed and elaborate responses to what scientifically based research and evidence-based practice mean for the field of adult literacy. It is useful to examine some of the points made during that ongoing discussion.

Demetron observed that it was not at all clear "on consensual grounds whether adult literacy more properly belongs in the realm of cultural studies . . . or to scientific forms of investigation." He pointed out that scientific research places cognitive psychology in a more authoritative role in research paradigms and suggests a more rigid experimental approach



that greatly limits what sorts of questions may be addressed. He expressed concerns about the reductionism in this methodology and what it leaves out, as well as that this scientific approach “would tend to delegitimize practitioner research.”

King commented that:

The failure is not in trying to disregard scientific method, but rather in failing to distinguish the different forms of data, data collection, the import of the prior development of the scientists’ questions on humans and their outcomes, and the ethical–political implications of the outcomes themselves, including the covert assumption that complete predictability is a goal.

King’s critique went on to make several additional points about problems with positivism, including its exclusion of the voices of adult learners and their goals in determining the effectiveness of programs. She concluded with skepticism about the openness to other voices by “those who are making decisions, especially where adult education is concerned” and worried that the available research will be converted to “mandated applications which must be applied thusly or else.”

Hansen responded from the perspective of a program provider who was skeptical about resources for and benefits of the detailed research program Comings described. She asked:

If the field can’t get funding for a much needed accountability tool, whatever would lead any of us to believe that they’d fund such research and a national system connected to state professional development systems as you write here?

Who exactly is going to pay for this wonderful scientific experiment? Will the [beneficiaries] truly be the non-reading or low-level literacy student? Or would it in the end benefit only the researchers and the program administrators tallying their numbers?

Hansen related her experience of having to delay service and hope for students because resources were not available, concluding, “Let’s pursue establishing policy that will be funded to increase our outreach so more adults, who need help changing their reading capabilities, get that opportunity in the current generation.”

Later postings from other program providers underscored concerns about funding and that the nature of scientific research could mean denial of services to adults placed in control groups. Grubb expressed the suspicion that the whole endeavor “is merely another attempt to justify failure to provide our field with adequate funding.”

### Efforts of the NIFL/NCSALL Reading Research Working Group

In 2001, NIFL and NCSALL supported efforts to develop guidelines for evidence-based principles and practices in adult reading education. They did this by bringing together a panel of experts on adult literacy research and practice.<sup>2</sup> The efforts of this panel, named the Reading Research Working Group (RRWG), led to the publication of *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002) and the establishment of an NIFL Web site for evidence-based practices in adult reading education: <http://www.nifl.gov/nifl/partnershipforreading/publications/adult.html>

The charge to the RRWG was “To identify and evaluate existing research related to adult literacy reading instruction in order to provide the field with research-based products including principles and practices for practitioners” (Kruidenier, 2002, p. 1). The focus was on:

research related to reading instruction for low-literate adults, aged 16 and older, who are no longer being served in secondary education programs. This includes low-literate adults in community-based literacy centers, family literacy programs, prison literacy programs, workplace literacy programs, and two-year colleges. It includes research related to all low-literate adults in these settings, including adults in ASE (adult secondary education) programs, ESOL (English for speakers of other languages) programs, and adults with a learning or reading disability. (Kruidenier, 2002, p. 1)

The legislated definition of scientifically based research and the NRP’s working plan were presented to the adult literacy panel as guidelines. In addition, the adult literacy panel was constructed to include a member who had also served on the NRP for K–12 reading.

It quickly became clear that any synthesis of adult reading research would have to differ from the NRP study in several ways. For example, the NRP synthesis had begun with several thousand research studies that were reduced by stringent research criteria to several hundred for inclusion in meta-analyses. Total studies of adult reading instruction number in the hundreds rather than the thousands, and only a fraction of these meets the requirements of the legislated definition of scientifically based research. No quantitative meta-analysis would occur with adult reading instruction

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<sup>2</sup>The author of this chapter served as a participant in some of the processes of this working group.

practice studies because there was not enough research available to perform a statistical meta-analysis. In fact, the total number of qualifying research studies identified in the peer-reviewed literature (including some technical reports) was approximately 70.

This small body of qualifying research necessitated several deviations from the NRP guidelines.<sup>3</sup> The adult literacy panel decided to arrange information in two categories: emerging *principles* and *trends*. Emerging *principles* were based on findings from at least two experimental studies (including quasi-experimental studies) and any number of non-experimental studies. Findings based on fewer than two experimental studies were labeled *trends*. In addition, the categories of *ideas* and *comments* were added. *Ideas* for adult reading instruction are based on a thorough review of reading instruction research at the K–12 level (NRP, 2000) and help to fill the gaps in the adult reading instruction research base. *Comments* are weaker, less conclusive findings from the K–12 research.

Guidelines for accepting qualitative studies addressing adult reading instruction were drawn from Denzin and Lincoln (2000), who state that the highest quality qualitative studies are those that collect data using multiple methods and use triangulation of these methods to support findings and any conclusions drawn from them. For techniques such as data coding (whether from transcripts, video tapes, or field notes), training and interrater and coder reliability should be performed. Only a few qualitative studies met all criteria of the study, and these were case studies corroborating findings of experimental studies.

The working group was also directed in its original charge:

to identify gaps in the ABE reading research and to consider how these gaps might be addressed. What research is needed and, of more immediate concern, where should the ABE instructor look for suggestions on the best ways to teach reading to ABE learners when the ABE research has not yet addressed a topic? (Kruidenier, 2002, p. 1)

The group considered supplementing instructional practices supported by adult reading research with some findings from the NRP study of K–12 research. After a good deal of discussion about areas of difference and similarity among adult reading, children's reading, and adolescent read-

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<sup>3</sup>Dolores Perin, a reviewer of this manuscript and a member of the RRWG, has suggested the model used by this group for selecting research might guide other attempts to synthesize research on scientifically based instructional practices when randomized experiments and other types of quantitative studies are rare.

ing, the working group decided, with great caution, to draw on some of the K–12 research for specific ideas that might be used to supplement adult reading research.

NRP research was used in three different ways: (a) to provide support for tentative conclusions related to adult reading instruction (when the findings from the NRP and those for adults are compatible); (b) to signal caution when the findings are not compatible; and, (c) to help fill in gaps in the adult reading instruction principles when no or very few research-based results are available. The guidelines (listed in order of priority) used in selecting K–12 instructional practices that might be used with adults included studies for which:

- The research supported limited adult findings.
- The instructional approach was plausible for adults.
- The approach was supported by a strong (i.e., depth and breadth) body of K–12 research.
- The research addressed learning disabilities and older learners.

The report is organized to address what research evidence says about several aspects of adult reading instruction. Table 2.1 shows sections and subsections of the report.

*Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002) serves to highlight a multitude of gaps in what scientifically based research on adult reading can say about instructional practice. The matrix in Table 2.1 is somewhat deceptive in that it suggests research is able to provide insight in each of the more than 100 cells. Even by using a single study to address several cells and by drawing on K–12 research, several cells remain empty, and even the cells with the strongest research support (i.e., *principles*) are supported by only a few studies. Given the criteria used to synthesize K–12 research and, indeed, standards from many other professions, nearly every area of adult reading research is a gap. Researchers proposing to do new research now have a common tool for making the case for the degree to which new research is needed.

The levels of evidence approach used in the adult reading research synthesis helps clarify a complicated body of evidence. Using the *principles, trends, ideas, and comments* framework makes it possible to share with educators and researchers the scant research information available and at the same time provide a mechanism for judging the trustworthiness of that information. However, the majority of evidence is at the low end of

TABLE 2.1  
Report Organization

Section Contents	Section Titles in the Report						
	Assessment	Alphabetics		Fluency	Vocab	Comp	Tech
	Profiles	PA	WA				
<i>Assessment of Component</i>							
All adults							
Adults with learning disabilities							
ESOL adults							
<i>Instruction</i>							
Overall							
Goals and setting							
General literacy							
Workplace literacy							
Family literacy							
<i>Instructional practices</i>							
Teaching strategies							
Instructional materials							
Intensity and duration							
Teacher preparation							
<i>Learner Characteristics</i>							
Functional reading level							
ESOL							
Learning disability							
Motivation							

Notes. PA = Phonemic Awareness, WA = Word Analysis, Vocab = Vocabulary, Comp = Comprehension, Tech = Technology  
Source: Kruidenier (2002).

trustworthiness, with only a few findings rising to the level of *principles* (such as assessment studies describing adult learners’ reading abilities).

Of particular concern to the adult literacy community is the limited generalizability of studies. Findings appropriate for adults pursuing the General Educational Development (GED) credential may not be at all appropriate for adults with very low literacy levels and those who may

have learning disabilities. Instructional approaches appropriate for learners whose first language is English may be less appropriate for the nearly one half of all adult literacy program participants who speak English as a second language. Even within this population, there are important distinctions to be made between learners literate in a first language and those who are not.

The problems of generalizability are magnified when drawing on research from K–12 populations. Studies that compare the literacy learning of adults to that of children and adolescents indicate that there are areas of both similarity and difference. *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002) takes a cautious approach to selecting K–12 studies to increase the probability of results being transferable to adult populations. Without more direct adult literacy research, however, it is a game of guesses.

## IMPLICATIONS FOR POLICY

As mentioned earlier in the History of Literacy Research section, it is a striking change for the federal government to use legislated definitions of scientifically based research to determine what sorts of research and instruction will be funded. A good deal of scholarship has addressed the use of research for policy purposes. Klemperer, Theisens, and Kaiser (2001) suggest a useful system for categorizing research. These categories are defined as:

*Enlightening Research* used to provide general notions or help in the process of shaping ideas or conceptualizations.

*Political Research* used to back up political opinions that have already been formed. Contradicting research is generally ignored.

*Problem-solving Research* used to find the right approaches for particular situations.

The preferred way of solving the problem is not given. It is expected that the research will clarify the situation and have a direct influence on policy decisions to be made. (pp. 200–201)

Klemperer, Theisens, and Kaiser (2001) indicate that both enlightening and problem-solving research are needed and feed each other in a recursive fashion. To overly emphasize one type of research at the expense of the other can undercut the healthy interactions between these two types of research.

The federal government is not the sole funder of research, but it does fund a significant portion of adult literacy research. Current federal policies may very well create an imbalance among the types of research needed to inform instruction and future policies. At a minimum, this calls for a careful review of the consequences of federal policy on the range of adult literacy research.

## **IMPLICATIONS FOR RESEARCH**

In terms of research, it will be important to monitor the implementation of the guidelines in the U.S. Department of Education's Strategic Plan. Of special importance will be which individuals are selected for an independent review panel of qualified scientists to oversee (and perhaps over-rule) peer review panel judgments. Also, the degree to which any form of qualitative research or non-instructional research will be funded is not completely clear. The tone of the federal documents seems opposed to general, non-instructional research, but it is not clear whether such research will be completely blocked from federal funding.

Adult literacy researchers might begin to work more collaboratively and submit studies that include both quantitative and qualitative methods. The rhetoric of the profession has often called for such multiple-perspective work. Perhaps it is time to explore ways to follow our own advice. A mixed methodology approach could add to the rigor of studies through triangulation and also keep open the possibility of new insights arising from closer, qualitative examinations of contexts and processes. Comings' recommendation that adult literacy "fight for a piece of the pie" seems prudent. To do so will call for a degree of flexibility and tolerance among adult literacy researchers that surpasses past performance. Some of the energy allocated to critiquing the limitations and questionable conclusions drawn from methodologies other than a researcher's favorite might be instead focused on joint research problem solving with researchers whose perspectives and methodologies differ from one's own.

## **IMPLICATIONS FOR PRACTICE**

What scientifically based research means at the program level will be determined, to a great degree, by state program officers. It seems clear that scientifically based research will appear in proposal guidelines and

that those seeking funding will need to demonstrate how their practice is based on evidence from scientifically based research. What is less clear is the degree to which *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002) will become adult education's NRP study and whether this will lead to King's fear of "mandated applications which must be applied thusly or else." Distributing federal funds through the underfunded bureaucracies of 50 different states has been singularly ineffective at mandating anything, but the fear is still worth noting. Like researchers, program providers are being challenged to be flexible and tolerant in seeking ways to maintain a focus on learner goals and voice and also incorporate evidence-based practices whenever possible. Professional groups within the community of adult literacy educators might call for a wider array of studies that can provide evidence for "evidence-based practice." Although the RRWG's guidelines are thoughtful and go beyond the National Reading Panel guidelines, there may be better ways to select which research is judged as scientific and qualified to guide instruction. The IRA has taken a position on the research findings it sees as qualifying as evidence in relation to literacy education. Adult literacy organizations should find a mechanism for reaching their own position statement through consensus. This seems especially important in light of the effort to narrow the array of acceptable evidence that appears in the U.S. Department of Education's Strategic Plan.

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# 3

## The General Educational Development (GED) Credential: History, Current Research, and Directions for Policy and Practice

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John H. Tyler

### INTRODUCTION

In 2001, the number of individuals who took the tests of General Educational Development (GED) topped one million for the first time in history. Each year since 1980, between 400,000 and 500,000 individuals have passed the exams and received their GED credential. GED certificates constituted 25% of the total of regular high school diplomas plus GED certificates issued in 2001. When this figure is limited to diplomas plus certificates issued to those under the age of 19, 10% of all “school leaving” credentials issued in 2001 were GED certificates.<sup>1</sup> In terms of numbers,

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<sup>1</sup>There were about 2,821,000 public and private high school diplomas issued in 2001, which is about 70% of the 17-year-old population that year. Meanwhile, there were about 266,800 GED certificates issued to individuals between the ages of 16 and 19. (Sources: GED Testing Service, 2001; National Center for Education Statistics, 2001).

the GED credential clearly has become a major component of the American education landscape.

The size of the GED credentialing program can be measured in dollars as well. In fiscal year 2000–2001, federal grants to the states for adult education programs authorized by the Adult Education and Family Literacy Act of 1998 totaled more than \$460 million, and these were matched by additional hundreds of millions of state dollars directed toward adult education (Office of Vocational and Adult Education, 2001b). Approximately 25% of these funds were targeted to adult secondary education programs that are largely GED preparation programs provided by public high schools, community colleges, community-based organizations, prisons, and other organizations involved in adult education (Office of Vocational and Adult Education, 2001a).

That a credential such as the GED was conceived and given a policy arena that allowed for vigorous growth is not surprising. Especially where it concerns education, the United States is a land of second chances, and the GED is the primary second-chance route for individuals who have dropped out of our nation's schools or landed on our shores lacking a high school diploma from their native country. This chapter tells the history of the GED and discusses factors associated with the enormous growth in the number of dropouts who hold a GED, the research regarding the impact of the credential on various outcomes, the important policy questions associated with the GED in the 21st century, and the questions that remain unanswered about this uniquely American education credential.

## **HISTORY AND DEVELOPMENT OF THE GED**

### **What Is the GED?**

The GED is an examination-based credential, and as such it requires no “seat time” or enrollment in any institution or prescribed course of study. One acquires a GED by passing a series of tests, not by accumulating credits or units. The purpose of the GED program is to certify the acquisition of certain levels of knowledge in five areas: mathematics, writing, reading, social studies, and science. The examinations in the GED battery are designed to test general rather than curriculum-specific knowledge in the five areas.

The GED Testing Service (GEDTS), an arm of the American Council for Education (ACE), oversees the GED testing program, producing the tests and disseminating them to state departments of education. The five tests in the GED battery take about 7 hours and 45 minutes to complete. All of the tests use a multiple-choice testing format, and the writing test also has a short essay component. There have been four generations of GED exams: the original GED tests released in 1942, the 1978 series, the 1988 series, and the current series released in January 2002.

The Commission on Educational Credit and Credentials of the ACE sets minimum passing scores on the exams. Each state education agency is, however, free to set higher passing standards if it chooses. Until 1997, this was an important consideration as many states chose higher standards than those the ACE set, generating substantial variation across states in the standard required to pass the GED exams. In 1997, the ACE raised the required minimum, and since that time, most states have had the same GED passing standard: a minimum score of 40 (out of a possible 80) on any one subtest and a mean score of 45 on the five tests. Individuals who fail the GED exams may, subject to various state-level restrictions, retake the tests. Each year, about 6 to 7 of every 10 GED candidates pass the exams and receive a GED.

The GED exams are normed on a random sample of graduating high school seniors, and the passing standard is set so that about one third of the norming sample would not meet the passing threshold. It does not necessarily follow, however, that successful GED candidates have stronger cognitive skills than one third of all graduating high school seniors because (a) members of the norming sample have little incentive to try their hardest on the tests; (b) a non-trivial percentage of successful GED candidates require more than one attempt to pass the exams; and (c) unlike the norming sample, many GED candidates have taken GED practice tests, and their scores may partially reflect test familiarity.

Each state department of education is ultimately responsible for administering, collecting, and scoring the tests, and for awarding the credential. Guidelines concerning factors such as testing conditions, locations, and times; opportunity to retest; age limitations; and residency requirements are all set at the state level. As noted earlier, states can raise the passing standard to a level higher than that set by the ACE. GED tests are administered in high schools, community colleges, prisons, church basements, and community halls. That this nationally recognized education credential is ultimately very local and decentralized is typical of the American approach to education.

## **The Military Beginnings of the GED**

The roots of the GED program trace to World War II. In 1942, an advisory committee to the Army Institute, headed by Ralph Tyler, selected five tests from the Iowa Test of Educational Development to form the first GED tests. The purpose of the exams was to certify that veterans returning from World War II without a conventional high school diploma had the skills to take advantage of the postsecondary education benefits provided in the GI Bill.<sup>2</sup> In essence, the tests certified that these men and women who had left school to serve the country before graduating had acquired skills in the military that were equivalent to the cognitive skills possessed by regular high school graduates. The GED was billed as a high school “equivalency” certificate. Many still think that GED is an abbreviation for “General Equivalency Diploma,” and several states have “equivalency diploma” printed on the GED certificates they issue. The extent to which GED certified individuals are, in fact and on average, “equivalent” to individuals who possess a high school diploma is an empirical question that will be explored in a later section.

The first GED tests were administered to returning veterans in 1943. The GED program was broadened in 1947, when New York became the first state to allow school dropouts who were not veterans to seek the GED credential. Other states soon followed, although relatively few dropouts sought this new credential in the early years. In 1949, 570 GED testing centers across the nation administered the tests to 39,000 individuals.<sup>3</sup> The GED was, however, about to make the transition from a relatively obscure military-related credential to the primary second-chance credential for school dropouts.

## **The Growth of the GED in the 1960s and 1970s**

Figure 3.1 charts the growth in the number of GED test takers from the first through the last years for which there are annualized data, 1954–2001. From a base of about 42,000 in 1954, the number of test takers per year

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<sup>2</sup>Passed in 1944 with the signature of President Franklin Roosevelt, the GI “Bill of Rights” provided various benefits to World War II and subsequent veterans, including funds for postsecondary education. In the peak year of 1947, veterans accounted for 49% of the total college enrollment in the United States ([http://www.gibill.va.gov/education/GI\\_Bill.htm](http://www.gibill.va.gov/education/GI_Bill.htm)).

<sup>3</sup>For comparison, there were about 1.6 million 12th graders in 1949 (National Center for Education Statistics, 1993).

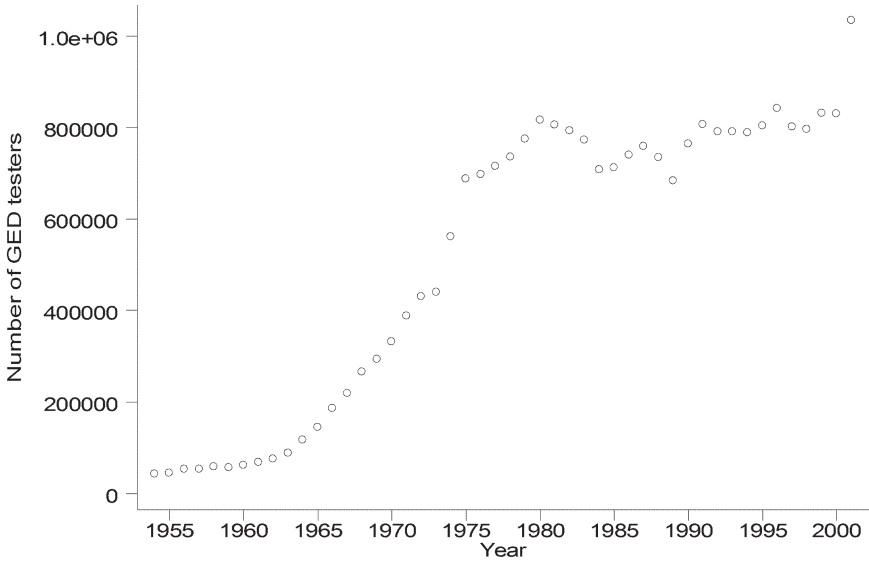


FIG. 3.1. Number of GED test takers by year, 1954–2001. Source: Various editions of the *GED Statistical Report* by the GEDTS.

grew at a stable and modest rate until about 1961 or 1962. Around 1963 or 1964, however, the rate of growth in the number of dropouts increased dramatically. In 1963, 88,000 attempted the GED exams; by 1970, more than 300,000 dropouts attempted the GED exams. By 1980, this figure reached 816,000, before leveling off for the next two decades.

Baby boom demographics associated with many mid- to late-century education trends can explain only a portion of the GED explosion. For example, if nothing changed between 1954 and 1980 other than the doubling in the number of 15- to 24-year-olds (the age range producing the bulk of GED candidates) that occurred, about 82,000 GED test-takers would have been expected in 1980 rather than 816,000.

Obviously, additional factors account for the growth of the GED program during the 1960s and 1970s. A particularly strong candidate is the increasing involvement of the federal government in issues concerning literacy, skill development, and adult education. Federal funds and programs directed at adult education were not new. In 1777, the federal government authorized funds to provide instruction in mathematics and military skills to soldiers of the Continental Army. Over the years, federal legislation led to the establishment of land grant colleges (Morrill Act of 1862), programs that provided education and vocational skills to adults not enrolled in

college (Smith-Lever Act of 1914 and Smith-Hughes Act of 1917), Depression-era education and vocational rehabilitation programs (Federal Emergency Relief Act of 1933), and a number of new services and programs in the 1950s aimed at low-skilled and low-educated adults (including the Library Service Act and the Government Employees Training Act). Nevertheless, attempts over the years to pass an Adult Education Act (AEA) had always been defeated. It was not until the mid-1960s that powerful economic and social forces led to legislation that would address the needs of adults who were poor, unemployed, unskilled, and undereducated.

In 1964, the first federal program designed specifically for adult education and literacy was created as a part of President Lyndon Johnson's War on Poverty. The Adult Basic Education Program was established in Title IIB of the Economic Opportunity Act (EOA) of 1964 (Public Law No. 88-452). This program's purpose was to initiate programs of instruction for individuals 18 years and older whose inability to read or write the English language constituted a substantial impairment of their ability to obtain or retain employment.

The Adult Basic Education Program was authorized through the Office of Economic Opportunity (OEO) but was in fact administered by the Office of Education within the Department of Health, Education, and Welfare. A number of state plans were approved and began operation in 1965. By the close of fiscal year 1966, all states had established adult education delivery systems, and federal funds, matched by state money, began to flow to adult education programs for the first time.

Figure 3.2 plots the federal dollars (in constant 1980 dollars) against the number of GED test takers for the years 1954 through 1980. As the graph makes clear, the rapid increase in the number of GED test takers coincides closely with the timing of federal dollars that began to flow to adult education programs under the AEA. This suggests a *prima facie* case that the growth of the GED program in the 1960s and 1970s was tied directly to increases in federal funding directed at adult education programs, a case made by Cameron and Heckman (1993). This argument is weakened, however, by the fact that only after a 1970 amendment were AEA monies allowed to benefit programs leading to secondary school completion (Rose, 1991). So not until 1971 at the earliest could federal monies have directly benefited GED test takers—almost 10 years after the upturn in the growth of the GED.

Another potential explanation for the rapid growth of the GED in the 1960s is the linkage between obtaining a GED and qualifying for postsecondary education loans and grants. The Guaranteed Student Loan (GSL)



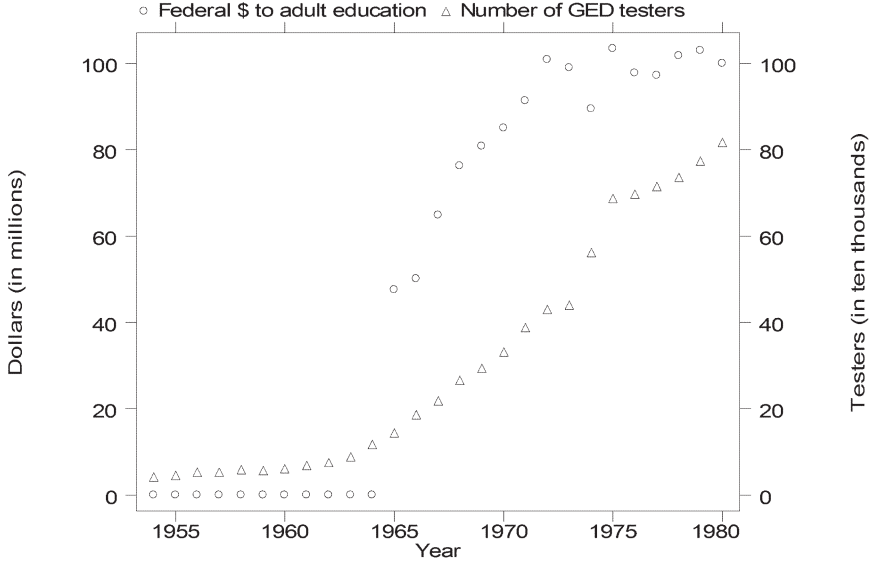


FIG. 3.2. Federal dollars (constant 1980 dollars) to adult education and number of GED test takers by year, 1954–1980. Sources: *GED Statistical Report* and National Advisory Council on Adult Education, 1980.

program was authorized in 1965, and monies from this program became available in 1966. During the 1960s, colleges increasingly recognized the GED as a valid school completion credential. For example, 91% of 2,000 higher education institutions surveyed in 1969 indicated that they accepted satisfactory GED scores for admission to college (Mullane, 2001). Thus, GED-certified individuals were eligible for the new federal monies available through the GSL program. The presence of these loans may have provided particularly strong incentives for dropouts to acquire a GED and go to college as the Vietnam War was heating up during the 1960s. In 1973, Pell Grant money became available, providing another source of financial assistance to dropouts who wanted to obtain a GED to go to college.

Figure 3.3 graphs the disbursements of GSL and Pell Grant funds by year. This graph makes it clear that these monies were generally coincident with the increase in GED testing. Two factors are important, however, when assessing the role of these programs in explaining the GED testing trend. First, as with the AEA funds, GSL funds became available 2 to 3 years after the GED trend line started rising in 1963–1964. Second, there is no available data to ascertain how many GED holders actually enrolled in postsecondary institutions during this period. More recent data

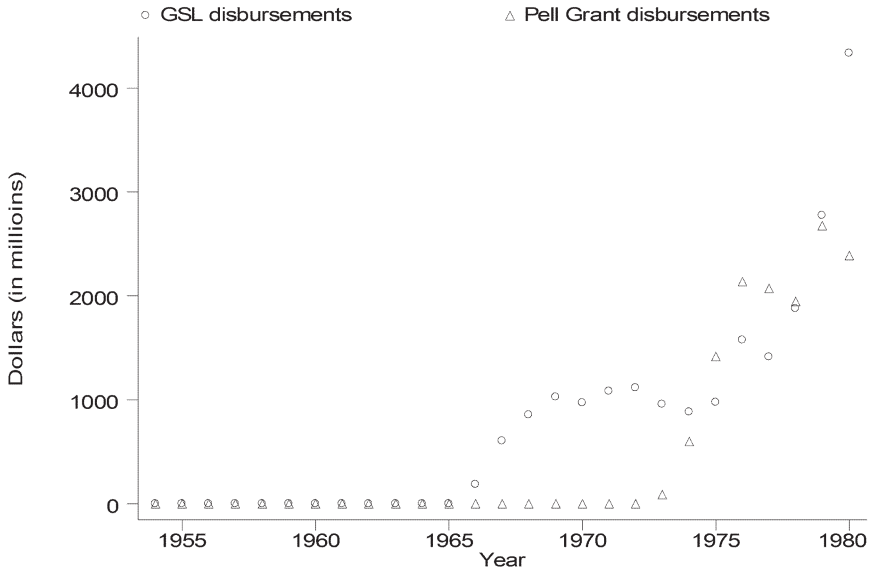


FIG. 3.3. Disbursements from Guaranteed Student Loans (GSL) and Pell Grants (constant 1980 dollars) by year, 1954–1980. Source: *Federal Student Loan Programs Data Book, FY 94–96* and *Pell Grant: 1994–1995 End of Year Report*.

cast doubt on whether the numbers could be high enough to explain much of the phenomenal growth in the 1960s and 1970s. For example, 1992 data cited in Murnane, Willett, and Tyler (2000) show that 12 years after GED holders were high school sophomores, only 30% had ever enrolled in a postsecondary institution, and only about 10% had earned as much as a year's worth of postsecondary credits. If postsecondary enrollment patterns were at all similar for GED holders in the 1960s and 1970s, the GSL and Pell Grant programs, along with other postsecondary financial aid programs, can only explain a portion of the increased use of the GED during this period.

Figure 3.1 shows a sharp upturn in the number of GED test takers between 1973 and 1974. This increase is coincident with two factors. First, as shown in Fig. 3.3, there was a substantial increase in Pell Grant disbursements at that time, suggesting a “carrot effect” that this federal program might have had on dropouts’ decisions to obtain a GED. At the same time, however, California became the final state to adopt the GED credential with a statewide policy, increasing the pool of potential GED candidates substantially.

One factor that could help to explain the early 1960s increase in the annual number of GED test takers is the movement of the GED program into the nation's prisons and jails. In 1956, only six state departments of education allowed testing of individuals in prisons; 38 states and the District of Columbia had GED testing programs in prisons by 1966 (Mullane, 2001). There are not reliable numbers today on the number of GEDs issued to incarcerated individuals. However, Mullane's tabulation of individual level data from Florida indicates that incarcerated individuals in that state obtained about 7% of the GEDs issued between 1995 and 1998.

In 1970, amendments to the AEA reduced from 18 to 16 the age at which the AEA defined someone as an adult. This increase in the GED candidate pool can explain some of the growth in the GED that occurred in the 1970s but not in the 1960s.

Other factors could also help explain the growth in the number of GED candidates during this period. For example, social movements such as civil rights not only called on society to increase public investments in education, but also called on individuals to obtain higher levels of education. Particularly for African-American adults, increased education was seen as important to the voting rights movement and to economic equality.

Thus, there are several explanations for the GED's rapid growth between the early 1960s and 1980. Factors such as the movement of the baby boom generation through the demographic pipeline, the lowering of the AEA definition of an adult from 18 to 16 years of age, and the movement of the GED program into prisons all served to increase the GED candidate pool. On the other hand, introduction of public policies such as the AEA, GSLs, and Pell Grants provided monetary incentives to any given pool of dropouts to pursue a GED.

Unfortunately, available data can only go so far in explaining why the GED grew as it did in the 1960s and 1970s. One can show that controlling for the effects of federal monies disbursed through the AEA and the GSL and Pell Grant programs, each standard deviation increase in the number of 15- to 44-year-olds during this period (11,000 additional 15- to 44-year-olds in the population) is associated with an additional 143,000 GED test takers. Meanwhile, controlling for the effects of the increase in 15- to 44-year-olds in the population because of the baby boom, each standard deviation increase in the federal AEA monies (\$45 million) plus Pell Grant disbursements (\$905 million) is associated with an additional 133,000 GED test takers. Together, these numbers explain about 40% of the total growth in GED test takers between 1963 and 1980, leaving substantial room for other explanations.

### **The Evolution of the GED: 1980 to the Present**

In the last two decades, both the GED tests' structure and the national guidelines for a passing score on the GED have changed substantially. The first generation of GED tests, administered from 1942 through 1978, was designed to focus on "measurement of the major and lasting outcomes of a traditional high school academic program" (Auchter, Sireci, & Skaggs, 1993, p. 2). The second generation of tests was based on test specifications defined by committees of high school curriculum specialists. Among the changes were a reduced reading load, more practically oriented questions on the math test, and a shorter total testing time (6 hours, versus 10 hours for the earlier version). A notable change occurred in the third generation of tests. For the first time, GED candidates were required to write a short essay in addition to answering multiple choice questions. Candidates had 45 minutes to compose and write an essay responding to an exam prompt. The essays were graded on writing mechanics and on how well they addressed and supported a topic. The overall testing time was extended to 7 hours and 45 minutes.

The next change in the GED testing program occurred in January 1997, when increased passing standards went into effect. Before that time, the ACE set the passing standard as a minimum score of 40 (out of 80) on any one of the five tests in the battery *or* a mean score of 45 across the five tests. Low scores for math or writing (the two tests on which GED candidates have traditionally scored the lowest) could be offset by higher scores for the other three tests, provided that the overall mean score was at least 45. After January 1997, GED candidates could no longer compensate for low math or writing scores with a strong performance on the other exams. The slightly elevated 1996 data point in Fig. 3.1 results at least partially because individuals wanted to obtain their GED before the higher 1997 standards went into place.

The fourth generation of GED tests, GED 2002, was implemented in January 2002. A panel representing the core academic disciplines of English-language arts, mathematics, science, and social studies proposed several changes to the GED tests. The important differences are that GED candidates encounter more business-related and adult-context texts across all five tests, there is increased emphasis on organization in scoring the essay portion of the writing test, and examinees are allowed to use a calculator on a portion of the math test for the first time. As with the early versions of the exams, GED 2002 was standardized and normed using a

national stratified random sample of graduating high school seniors. As in earlier versions, candidates taking GED 2002 must demonstrate a skill level that meets or surpasses that demonstrated by approximately 60% of graduating high school seniors. Thus, theoretically, passing the GED exams did not become more difficult with GED 2002. However, individuals who had passing scores on some but not all of the GED exams prior to January 2002 were not allowed to carry those scores forward; they had to take and pass all five exams in the GED 2002 series. This, along with anticipation that the GED 2002 might be more difficult than its predecessor, likely accounts for much of the increased testing volume represented by the 2001 data point in Fig. 3.1.

With the passage of the Workforce Investment Act (WIA) of 1998 (Public Law No. 105-220), the Adult Education Act was replaced by Title II of the WIA, the Adult Education and Family Literacy Act (AEFLA). A major feature of the AEFLA is its emphasis on “receipt of a secondary school diploma or its recognized equivalent” as one of the “core indicators of performance.” As the “recognized equivalent” in most cases will be a GED credential, the AEFLA further institutionalizes the GED credential in adult education. On the other hand, there is a possible tension between the goals of WIA and the practice in GED preparation programs. At least the spirit of WIA is to increase the skills of adults with low education levels so that they can more fully participate in the “information age” economy. However, many learners in GED preparation programs want to focus on direct preparation for the GED, and instruction intended to build a broader set of skills for the workplace often lacks priority.

Hand in hand with the performance indicator requirements in the AEFLA has been the National Reporting System (NRS). Developed with the support of the U.S. Department of Education, the NRS is designed to establish a national accountability system for adult education programs. Its goal is to identify outcome measures of adult education programs that are appropriate for national reporting, establish methods for data collection, develop software standards for reporting to the U.S. Department of Education, and develop training materials and activities on NRS requirements and procedures.

Viewed from one perspective, the GED program offers an example of how the NRS could collect and utilize information on adult education programs that serve other populations, such as students in adult basic education (ABE) and English for speakers of other languages (ESOL) classes. Currently, these classes satisfy NRS requirements by reporting results on pre- and post-tests. If these programs followed the GED example, each

would have a test with a recognized “passing” standard, and on meeting this standard, program participants would be awarded a certificate indicating that they could perform at a given level. The GED approach is certainly an easier way to judge program effectiveness, as it only involves counting numbers or percentages of certificates granted. The impact that a move to a certificate-granting system would have on program design, pedagogy, and, ultimately, human capital development in ABE and ESOL classes is, however, less certain.

Viewed from the opposite perspective, the impact of the NRS on adult education programs and, more particularly, GED preparation programs is as yet unclear. At the least, the NRS is focusing attention on the need for the type of data collection and analysis in adult education that has been common for years in K–12 and postsecondary education in this nation. For example, simply attaching the Social Security numbers of program participants to program records related to basic demographics, program participation, test score histories, program completion, and so forth, would allow researchers to analyze adult education programs in ways not previously possible. Research in other areas<sup>4</sup> has shown that individuals’ confidentiality can be retained even as researchers link program data to, for example, records on postsecondary education, involvement in the criminal justice system, and earnings records from the state unemployment insurance system. The ability to not only track participation patterns in adult education programs, but also link participation in and completion of these programs to later outcomes holds the promise to greatly expand understanding of how these programs affect the lives of adult learners.

The influence of another adult education effort on the GED program is also yet to be resolved. The National Literacy Act of 1991 established the National Institute for Literacy (NIFL) to consolidate, disseminate information about, and support the development of services for low literacy-level adults. In 1993, the NIFL embarked on a project called *Equipped for the Future* (EFF) to develop a consensus of what is meant by Goal 6 of the National Education Goals that grew out of the first National Education Summit in 1990. Goal 6 addresses issues related to adult literacy and lifelong learning.

The most recent outcome of the NIFL effort is the 2000 publication of *Equipped for the Future Content Standards: What Adults Need to Know and Be Able to Do*, a document that launches the implementation phase of the *Equipped for the Future* initiative (Stein, 2000). As is the case with

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<sup>4</sup>See, for example, Jacobson, LaLonde, and Sullivan (1993).

the NRS, the ultimate impact of the EFF content standards on the GED program is unclear. On one hand, the EFF-related research was probably instrumental in some of the new facets of GED 2002, such as the use of calculators and texts that are more business-related and contain more adult-context entries. On the other hand, of the 16 specific skills outlined in the EFF content standards, the GED exams directly test only four: convey ideas in writing, read with understanding, use math to solve problems and communicate, and solve problems and make decisions.

Another 1990 initiative, the Secretary's Commission on Achieving Necessary Skills (SCANS), can also be seen as a potential force in the design of GED 2002. The goal of SCANS was to encourage the continued development of a high-performance economy characterized by high-skill, high-wage employment. Chartered by then Secretary of Labor Lynn Martin, the Commission defined a set of critical skills needed to succeed in the modern workforce. These "SCANS skills" were then compiled into a 1991 report that defined a high-performance workforce as one resting on a foundation of basic skills, such as computation and literacy, and the ability to apply this knowledge. On that foundation, high-performance workers need advanced "soft skills," including the ability to work in teams, solve complex problems in systems, and understand and use technology. As with the EFF content standards, GED 2002 is closer to testing the types of skills SCANS defined than were earlier versions of the GED exams. There are, however, noticeable disconnects between GED 2002 and SCANS skills, such as measuring the ability to work in teams or solve complex problems.

### **IMPACT OF THE GED ON LABOR MARKET AND POSTSECONDARY EDUCATION OUTCOMES**

The GED program has been studied extensively in recent years. The great bulk of the research has examined the credential's economic benefits. Since its early days, the GED has carried the title of a "high school equivalency" certificate, and the earliest research into the economic benefits of the GED was aimed directly at that claim. That research asked how the labor market outcomes of GED holders compared to individuals who graduate from high school with a regular diploma. Cameron and Heckman (1993) responded to this in a study that showed GED holders were not the labor market equivalents of regular high school graduates. That is, GED holders

in this nationally representative study fared worse on virtually all measures of labor market success, including annual earnings, hourly wages, and probability of employment, than did regular high school graduates. The authors of the study were more ambivalent concerning a second question of importance: Once someone has dropped out of school, are there advantages associated with obtaining a GED? Comparing GED holders to dropouts without any credential has been the focus of GED research since the Cameron and Heckman study.

Examinations of the GED conducted up to 1998 were reviewed in a study released by the U.S. Department of Education team of Boesel, Alsalam, and Smith (1998). Their review studied GED research in three areas: the GED and labor market outcomes, the GED and the military, and the GED and postsecondary education. That the great majority of these studies is concerned with the relationship between the GED and labor market outcomes illustrates how research on the credential and outcomes not directly associated with labor market success is lacking.

GED-related research in the years since Boesel et al. (1998) has been driven in no small part by increased concerns over the plight of low-skilled, low-educated individuals in an evolving high-tech economy. This section concentrates on the post-Boesel et al. research and focuses on research examining how the GED works in the labor market. Although outcomes not directly tied to the labor market are important in their own right, the update of GED research presented here concentrates on the economic payoffs of a GED for two reasons. The first and most obvious reason is that there is very little research examining the impact of the GED on outcomes that are not directly related to the labor market. Whether or not the GED affects outcomes such as parenting skills, health, citizenship, and involvement in crime are critical questions that, unfortunately, have not been addressed by the research community. However, a more substantive reason for focusing on the economic benefits of a GED is that many dropouts pursue the credential because they believe it will lead to better labor market outcomes. In the latest survey of dropouts taking the GED, 30% identified "employment" as their reason for taking the GED (GED Testing Service, 2001). Another 66% indicated "further education" as the reason, and presumably many of these individuals are interested in extra education because of the expected labor market payoffs associated with higher levels of education.

The extent to which the GED actually improves labor market outcomes is, of course, an empirical question, but one with a substantial body of evidence. The discussion that follows emphasizes four new lessons from



that literature that address the following questions: Does the GED program induce students to drop out of school? Which dropouts experience the economic benefits of a GED? What is the timing of economic benefits associated with a GED? How important is it to use the GED as a gateway to further education and training?

### **Linking the GED to Labor Market Outcomes: Theoretical Mechanisms**

The GED can affect the labor market success of dropouts directly, indirectly, or both. An obvious direct linkage between GED acquisition and better labor market outcomes derives from human capital theory. For students with weak cognitive skills, studying to pass the GED exams could lead to increases in skills that the labor market values and rewards. There is an expected strong correlation between the time spent studying for the GED and the amount of human capital accumulation. Unfortunately, there is little evidence related to the amount of time that adult learners spend preparing to pass the exams. The only direct evidence on GED study time comes from a 1989 GEDTS survey that found the average GED candidate spent only about 30 hours preparing for the exams (Baldwin, 1990). However, there is a long right-hand tail to this distribution, meaning there are some candidates who spend many hours preparing. Presumably these are dropouts with low skill levels, individuals who may experience substantial increases in human capital as they try to raise their cognitive skills to a level that will allow them to pass the GED exams. Also, it may be the case that individuals for whom English is a second language, including large numbers of immigrants, spend a considerable time improving their English language skills in preparation for the tests.<sup>5</sup>

Market signaling theory provides a second direct mechanism through which acquisition of a GED could result in better labor market outcomes (Spence, 1973). According to market signaling theory, employers lack perfect information on the skills of their job applicants and, as a result, will use “signals” of productive attributes in hiring and wage assignment if such signals exist. The GED may serve as such a signal in a pool of job applicants who are dropouts. If employers have found that GED holders are more productive employees than dropouts who lack the credential, in

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<sup>5</sup>The GED is offered in Spanish and French. In 2000, about 5% of the 830,000 tests taken were taken in Spanish, whereas only .1% were taken in French (GED Testing Service, 2001).

the absence of better information, employers might use the GED as a signal of hard-to-observe productive attributes, such as motivation, dependability, or commitment to work. If this were the case, we would expect employers to hire GED holders before they hired observationally similar uncredentialed dropouts, and/or give them better jobs with higher wages or jobs in which earnings may start low but grow faster over time.

The GED could also indirectly result in better labor market outcomes for dropouts if acquisition of the credential led to more postsecondary education or training, which, in turn, led to increases in earnings. Application to most postsecondary academic programs and many vocational training programs requires a high school diploma as evidence of secondary school completion, and most of these programs allow the GED to serve as this evidence. Also, postsecondary education Pell Grants and federal student loans stipulate that applicants demonstrate the “ability to benefit” from postsecondary education. Many dropouts use the GED to satisfy the “ability to benefit” criterion.

To this point, the discussion has focused on potential positive impacts of GED acquisition. There is, however, at least one way in which acquisition of this credential could have a negative impact on dropouts’ future labor market outcomes. Some have proposed that the promise of obtaining a GED may induce individuals who would have otherwise benefited from a high school diploma to drop out of high school. To the extent that this is the case, we would expect dropouts’ future labor market outcomes to be worse than they would have been if the GED did not exist as an option.

## Early Research

The most consistent result emerging from the Boesel et al. (1998) review is that GED holders fare worse in the labor market than regular high school graduates. “The Nonequivalence of High School Equivalents,” a 1993 study by University of Chicago economist James Heckman and his (then) student Stephen Cameron, is seen by many as the benchmark study comparing GED holders to individuals who graduate from high school with a regular diploma. That line of literature consistently finds that GED holders have lower hourly wages and earnings, work fewer hours, and have lower postsecondary completion rates than do individuals who graduate from high school with a regular diploma. These results focused researchers’ attention on a second question: How do GED holders fare when compared to other dropouts who have no credential? Boesel et al. (1998) revealed three regularities on this question. First, GED holders

come from more advantaged backgrounds than uncredentialed dropouts,<sup>6</sup> complete more years of schooling before dropping out, and have higher cognitive skill levels than dropouts without a GED. Second, GED holders have higher estimated wages and annual earnings than uncredentialed dropouts. Third—and most important for understanding the context of the research that was to come—after controlling for observational differences between GED holders and uncredentialed dropouts, the wage and annual earnings advantages of GED holders become much smaller and often statistically insignificant. Thus, as of 1997, there was no clear evidence in the research that GED holders fared any better in the labor market than uncredentialed dropouts. Researchers tackled this question in the years following the Boesel et al. (1998) review, and again a series of regularities emerged.

### Recent Research

The most recent research on the economic benefits of the GED is contained in 16 different post-1998 studies, and the lessons from this research can be grouped into four areas. Some of the lessons from recent research support and extend what was learned in the earlier Boesel et al. (1998) synthesis, and some of the most important results either diverge from the earlier work on the GED or represent new lines of research on the GED.

***Lesson 1: There Is Some Evidence That the GED May Encourage Some Students to Leave School Early.*** There is substantial interest on many fronts in determining whether or not having an alternative credentialing system encourages students to leave school who would otherwise remain in school and obtain a high school diploma. Data from the GEDTS and the Common Core of Data indicate an increasing number of GED recipients along with a decreasing number of regular high school graduates during the 1990s (Chaplin, 1999). Past research comparing the labor market value of a GED to a high school diploma makes this a critical issue. In terms of anticipated labor market success, the best choice for the average student is to finish high school. It follows that a policy or program that tends to reduce the likelihood of this outcome may be individually and socially counterproductive. Many have worried that the GED alternative credentialing is such a program.

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<sup>6</sup>For example, GED holders tend to come from families with higher incomes and have parents with higher levels of education than uncredentialed dropouts.

Only three papers have addressed this important question. Agodini and Dynarski (2000) use a simple human capital model of individual investment in education to examine the potential tradeoffs involved in dropping out of school and remaining uncredentialed, dropping out and obtaining a GED, and staying in school until graduation. This primarily theoretical paper suggests that a high school diploma is the optimal choice for students who place a relatively high value on future earnings, relative to potentially lower present earnings. A GED credential is the optimal choice for students who place a medium to low value on future earnings, relative to present earnings, especially if the student is behind grade level or can work at least half-time while preparing for the GED. Dropping out is the optimal choice for students who place a low value on future earnings, especially if the student can only work half-time or less while preparing for the GED.

The Agodini and Dynarski (2000) model is useful for exploring the potential outcomes that might result if policies were designed to offset this trend. For example, the Agodini and Dynarski model suggests that raising the age at which an individual could obtain a GED from 16 (the minimum age allowed in several states) to 20 or 21 everywhere could be counter-productive. The optimal choice for many students under a more stringent age limitation would be to drop out and remain uncredentialed rather than to stay in school. Instead, they suggest that policies to reduce the number of students behind grade level would be more productive in reducing the number of students who may drop out to obtain a GED. The rationale in their model is that being behind grade level increases the personal costs of graduating from high school.<sup>7</sup> The work of Agodini and Dynarski focuses attention on the fact that simply making the GED harder or more costly to obtain may not be effective in reducing the trend toward choosing a GED over completing high school.

These authors also point out, however, that it is misguided to emphasize the GED as an “end product.” Ideally, the credential should be viewed as one step in a human capital accumulation process. This suggests a more concentrated effort on policies that leave GED recipients better prepared for the labor market. Agodini and Dynarski suggest that by linking the GED program to other institutions or organizations, GED preparation programs could serve as platforms for providing additional learning opportunities, be they postsecondary academic education or vocational education and training.

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<sup>7</sup>There is an established literature in education on students who are behind grade level. See, for example, Shepard and Smith (1989).

Papers by Chaplin (1999) and Lillard (2001) also address whether and to what extent the GED option may induce dropping out of school. Analyses in both papers provide estimates of the relationship between the propensity to drop out and GED policies. The dropout measures used are state-level dropout and school continuation rates. The papers are similar in that each capitalizes on the fact that many GED policies differ across states and across time, making it easier and/or cheaper for someone to obtain a GED in some states and at some times than it is in other states or at other times. For example, in some states, dropouts cannot obtain a GED before the age of 18, but in other states, dropouts can acquire the credential when they are at least 16 years of age. The GED age policy in some states has also varied over time. The key assumption is that by controlling for state-level variables that may be correlated with both changes in GED policy and changes in state school-continuation rates, any remaining variation in the state school-continuation rate is a result of the GED becoming easier or cheaper to obtain.<sup>8</sup> Under a key assumption that the GED policy variables are unrelated to any remaining unobserved state-level variables that might independently influence state dropout rates, one can interpret the estimated coefficients on the policy variables as the effect of the GED policy on the high school continuation rate.

Chaplin finds that 6 of the 16 GED policies he examines are statistically related to the state high school continuation rate and operate in the anticipated direction (i.e., policies that make the GED easier to obtain are associated with lower school continuation rates, and those that make it harder are associated with higher continuation rates).<sup>9</sup> For example, in states where dropouts can obtain a GED without additional state restrictions (over and above national-level restrictions), the high school continuation rate is 1.5 percentage points lower. Other policies related to lower high school continuation rates are:

- allowing individuals to obtain a GED if they are incarcerated or under a court order;
- allowing individuals who would otherwise face certain restrictions to obtain a GED if their class has graduated;
- allowing otherwise ineligible individuals to obtain a GED if they have been out of school a specified number of months;

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<sup>8</sup>Chaplin defines the school continuation rate as the number of youth in a given state and grade divided by the number from the previous grade in the previous year in that state. These calculations are made using data from the Common Core of Data.

<sup>9</sup>Table 2 of Chaplin (1999).

- allowing otherwise ineligible individuals to obtain a GED if they have taken certain school courses prior to dropping out;
- allowing dropouts to bypass other restrictions if they can pass a GED practice test.

The effect sizes for the policy variables that are statistically significant range from a one percentage point decrease in continuation rates if underage dropouts are allowed to obtain a GED if their class has graduated to a 6 percentage point decrease if passing a practice test means other restrictions are waived.

Lillard (2001) takes a similar approach to the GED-dropout question, although Lillard uses the high school dropout rate in the state in a given year as the primary dependent variable.<sup>10</sup> The strongest result in this study is that increased out-of-pocket costs for taking the GED are associated with substantial and statistically significant decreases in the state dropout rate.<sup>11</sup> Based on the estimates, half a standard deviation increase in testing fees (about a \$3.45 increase) is associated with a decrease in the state dropout rate of about 1.8 percentage points or about a 9% decrease in the mean rate.

The three papers discussed here provide the first insights into how the GED testing program may be related to students' decision to drop out. From Agodini and Dynarski (2000), we should take away the following lesson: Although some students may choose to obtain a GED rather than a regular high school diploma, simply making the GED harder or, in the extreme, impossible to get would not necessarily be the correct policy response. They show that if there were no GED option, many students might choose to drop out without a credential rather than graduate from high school.

Meanwhile, Chaplin (1999) and Lillard (2001) find that certain GED policies are likely related to school dropout rates. The key assumption in both papers is that the variables in the regressions control for all state-level factors associated with both GED policy and the dropout rate.

Some relatively large estimated effect sizes in both the Chaplin and the Lillard papers suggest, however, that some caution is warranted. For example, Chaplin estimates that GED policies requiring the permission of parents before underage students can obtain a GED leads to an increase

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<sup>10</sup>Lillard defines the dropout rate for a given state in year  $t$  as the fraction of all 14-year-olds in that state who are enrolled in the 9th grade in year  $t-4$  minus the fraction of all 18-year-olds in that state who graduate in year  $t$ .

<sup>11</sup>Table A3 of Lillard (2001).

in the mean high school continuation rate of over 6% (6.5 percentage point increase). And Lillard estimates that increasing the GED testing fees by \$3.45 would decrease the mean dropout rate by 9% (1.8 percentage points). Both estimates represent substantial, and perhaps implausibly large, impacts on dropout rates.

The large effect sizes in these two papers may mean that some key variables are not accounted for and that the estimates are therefore biased upward. Nevertheless, in both papers, many GED policy variables are statistically related to the students' decision to drop out. Perhaps more important, however, is that these papers represent the first attempts to answer a critical question concerning the GED program: In an era when skills and education are more important than ever, what role, if any, does the GED play in encouraging students to leave school early?

***Lesson 2: There Are Economic Payoffs to a GED, but They Accrue Only to Dropouts Who Leave School With Low Skills.*** As previously discussed, the early GED literature consistently indicated only small and often statistically insignificant differences in the labor market outcomes of GED holders and uncredentialed dropouts, after accounting for years of completed school and cognitive skills. All of these earlier results were, however, based on two implicit assumptions: First, there were no unobservable factors correlated with both GED status and the outcome of interest. When this is not the case, standard estimation techniques yield biased results. One name for this problem is "selectivity bias." Earlier work assumed there was no selectivity bias problem. Second, earlier research on the economic impact of the GED ignored the possibility that the effect of the credential on the labor market outcome of interest might be quite different for lower skilled dropouts than for higher skilled dropouts.

Nine studies since 1997 have examined the economic returns to a GED. One of these directly addressed the selectivity bias question (Tyler, Murnane, & Willett, 2000), three allowed for differential GED effects by skill level (Murnane, Willett, & Boudett, 1999; Murnane, Willett, & Tyler, 2000; Tyler, Murnane, & Willett, 2001), and three examined the relationship between the GED and the labor market outcomes of particularly low-skilled individuals (Clark & Jaeger, 2002; Heckman, Hsueh, & Rubinstein, 2000; Tyler, Murnane, & Willett, 2000). The primary lesson from these studies is that the GED seems to be an economically valuable credential for dropouts, but only for those who leave school with weak cognitive skills. There appear to be no payoffs to a GED for dropouts who leave school with higher skills. A second lesson is that any selectivity bias



associated with the GED is likely negative in nature. That is, among a pool of dropouts, those with low expected lifetime earnings appear to choose to obtain a GED.

Unless there is the unusual controlled, randomized experimental research design, it is extremely rare in social science research to obtain estimates that have a causal interpretation because of the selectivity bias problem. Tyler, Murnane, and Willett (2000) were the first to explicitly address selectivity bias in GED-related research. Their work relied on what is known as a “natural experiment.” So-called “natural experiments” take advantage of sharp policy changes or differences across states in key policies in an attempt to mimic what one would attain with a true controlled, randomized experiment—random assignment into a treatment group and a control group. To the extent that using natural experiments results in assignment to treatment and control groups that is as good as random, selectivity bias is much less of a problem.

Tyler et al. (2000) were able to exploit a natural experiment because until 1997 the passing standard required to obtain a GED varied across states. A simple example using Connecticut and New York (these states are used here for illustrative purposes only) explains their approach. In 1990, the GED passing standard was lower in Connecticut than in New York. Given data from these two states containing GED test scores, the researchers could find individuals with scores so high that they would be awarded the GED in either state and individuals with scores so low that they would not obtain a GED in either state. However, there is a slice of the data in which individuals who reside in Connecticut have scores that allow them to narrowly pass the GED standard, but individuals with the same score residing in New York would narrowly fail the GED exams because of that state’s higher GED standard. Tyler et al. argue that any differences in the earnings of the Connecticut and New York individuals who are on the GED passing margin and have the same GED scores should result solely because the groups differ in GED status and work in different state labor markets.<sup>12</sup> They applied this method nationally, controlling for the effects that working in different state labor markets would have on earnings. The resulting estimates of the GED’s impact on earnings are arguably free of selectivity bias. To study dropouts from around the nation, Tyler et al. used a data set constructed by the Social Security Administration in concert with the GEDTS and several state departments of education.

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<sup>12</sup>Tyler, Murnane, and Willett discuss and test other assumptions that are required for unbiased estimates in their design. For example, it must be the case that there are no state-by-skill interactions.



Estimates in the Tyler et al. (2000) work indicate that for White male and female dropouts, receipt of a GED resulted in earnings 5 years later that were 10% to 19% higher than they would have been otherwise.<sup>13</sup> These estimates are considerably larger than are any of the estimates in the earlier GED literature. Tyler et al. explained the differences by making the following observation. Their estimates were driven by GED holders who barely passed the GED exams, the GED holders with the lowest cognitive skill levels. In contrast, previous estimates were based on *all* GED holders in a given data set, and the estimating models had constrained the impact of the GED on earnings to be the same regardless of skill level. If the GED has a small or zero impact on the outcomes of relatively high skilled dropouts and a more substantial impact on the outcomes of lower skilled dropouts, then models that do not allow for this difference will “average together” the two effects. Estimates based on such models may find no overall statistically discernible GED effect. Models that allowed the impact of the GED to differ by skill group would uncover the larger effects for the lower skilled group and the small or zero effects for the higher skilled group.

Although the Tyler et al. (2000) results are consistent with a “differing GED effect by skill level” story, they lacked appropriate data for testing the proposition. Data including both low- and high-skilled dropouts who did and did not obtain a GED, along with a model that would allow differential impact of the GED by skill level, are required. The same research team conducted follow-up research with these types of data and research design (Murnane, Willett, & Tyler, 2000). The results in this paper support the proposition that dropouts who leave school with relatively low cognitive skills benefit substantially from the GED, whereas dropouts who leave school with higher skills receive little or no later economic benefit.

The data set used was the sophomore cohort of the High School and Beyond (HSB) survey, and cognitive skills were measured using scores on a math achievement test that all HSB sample members took in the 10th grade. Low-skilled dropouts were defined as those in the bottom quartile of the 10th grade math test score distribution, and higher skilled dropouts were those in the upper three quartiles of the distribution. The authors first reproduced earlier GED results by estimating specifications in which the

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<sup>13</sup> Table V of Tyler, Murnane, and Willett (2000). Tyler et al. find no statistically significant effect for GED holders who are not White. They state that the relatively large number of Black males who obtain a GED while in prison may explain this. To the extent that these individuals are still in prison when Social Security earnings are measured, their observed earnings will underestimate their true potential earnings in the labor market.

impact of the GED was constrained to be the same across skill levels. In these specifications, the effect of the GED on earnings was consistently small and statistically insignificant, matching results in the literature prior to the Tyler et al. (2000) paper. In models that removed this constraint, the GED's estimated impact on the log earnings of 27-year-old low-skilled males was about 36% when only controls for family background, region of the country, and tenth-grade math test score were used and 28% when controls for work experience were added. Both estimates are significant at the 0.05 level.<sup>14</sup> In none of the specifications could the authors reject the null hypothesis that the log earnings of higher skilled GED holders were the same as the log earnings of similarly high-skilled, uncredentialed dropouts.

Additional support for the hypothesis that the impact of the GED on outcomes depends on the skill level of the dropout came from two other studies. One study examined males using data from the National Longitudinal Survey of Youth (NLSY; Murnane, Willett, & Boudett, 1999), defining low-skilled male dropouts in the NLSY as those in the bottom three quarters of the Armed Forces Qualifying Test (AFQT) distribution.<sup>15</sup> Five years after obtaining a GED, low-skilled male GED holders in the NLSY were predicted to have wages that were 6% higher and earnings that were almost 10% higher than low-skilled, uncredentialed dropouts.<sup>16</sup> Again, there was no evidence that the wages or earnings of higher skilled GED holders differed from those of higher skilled uncredentialed dropouts.

A second paper used HSB data to explore whether the differential GED-impact hypothesis held for females (Tyler, Murnane, & Willett, 2001). The results were very similar to results for males using HSB data. At age 27, low-skilled female GED holders had annual earnings that were 25% higher than those of low-skilled female dropouts without a GED, and at the same age, there was no difference in the earnings of higher skilled female GED holders and those of higher skilled, uncredentialed dropouts.<sup>17</sup>

Heckman, Hsue, and Rubinstein (2000) used NLSY data to examine the effect of the GED on the log hourly wages of low-skilled dropouts, defined as those dropouts in the second quartile of the AFQT distribu-

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<sup>14</sup>Table 6, Models 1 and 2, respectively, of Murnane, Willett, and Tyler (2000).

<sup>15</sup>The AFQT score is a weighted average of four subtests of the Armed Services Vocational Aptitude Battery (ASVAB) that was administered to 94% of the participants in the NLSY in 1980.

<sup>16</sup>Table 4, Model 1a and Table 5, Model 1a, respectively, of Murnane, Willett, and Boudett (1999).

<sup>17</sup>Table 8, Model 1 of Tyler, Murnane, and Willett (2001).

tion. Estimates from random effects models showed that low-skilled GED holders (males and females together) had hourly wages about 10% higher than those of uncredentialed dropouts. Estimates that controlled for time-invariant unobservable differences between dropouts with and without a GED produced results similar to Murnane, Willett, and Boudett (1999): The hourly wages of low-skilled GED holders were about 5% higher than those of low-skilled dropouts without a GED. The Murnane et al. results were statistically significant, whereas those of Heckman et al. were not, which may be partially explained by the smaller sample size in Heckman et al. (about 200) versus Murnane et al. (about 900). Another difference between the Heckman et al. study and the other studies discussed thus far is that all of the specifications used by Heckman et al. controlled for total work experience and annual hours worked. If acquisition of a GED leads to greater work experience and hours worked, then controlling for these factors would result in smaller estimated effects of the GED on wages because work experience and hours worked are themselves related to higher wages.

The Heckman et al. (2000) results do not actually address the central topic in the cited paper. Their primary interest in that paper is to compare the noncognitive skills of GED holders to those of uncredentialed dropouts. Examples of the noncognitive skills they examined are the ability to resist criminal or aberrant behavior, the ability to attend school regularly, and the ability to make healthy lifestyle choices. Heckman et al. find that uncredentialed dropouts have a more favorable distribution of factors related to noncognitive skills than GED holders. For example, compared to uncredentialed dropouts, higher percentages of White male GED holders in the NLSY had intentionally damaged property at some point, been involved in fights at school, shoplifted, been involved in some way with drugs, or ever been arrested or convicted of a crime.<sup>18</sup> Heckman et al. argue that because the GED tests cognitive skills, it “selects” dropouts who have relatively high cognitive skills but below-average noncognitive skills. Their study does not make it possible to ascertain whether the noncognitive skills of GED holders and uncredentialed dropouts vary by cognitive skill level, an important question given the bulk of the evidence on the value of the GED for low-skilled dropouts.

Another paper examines a different set of dropouts with potentially low skills: foreign-schooled immigrants who enter the United States without a high school diploma (Clark & Jaeger, 2002). The Clark and Jaeger study

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<sup>18</sup>Table 5a of Heckman, Hsueh, and Rubinstein (2000).

is an important contribution to the field because it is the first work to study a group that is becoming an important component of the GED program: low-educated immigrants. The research question examined in this study differs from the other research discussed in this section because it compares GED holders and regular high school graduates rather than GED holders and uncredentialed dropouts. Consistent with previous research on the GED, Clark and Jaeger find that among U.S. natives, those with a regular high school diploma have higher hourly wages than observationally similar GED holders (an 8%, statistically significant wage advantage for high school graduates).<sup>19</sup> Among the foreign-born and foreign-schooled, however, GED holders in the United States earn 8% to 10% *more* than foreign-born and foreign-schooled individuals who hold a regular high school diploma from their country of origin.

Clark and Jaeger (2002) explain that U.S. employers may know little about the value of a foreign high school diploma, and hence about the skills that foreign-schooled high school graduates possess. On the other hand, they know something about the skills of people who hold a U.S. GED credential.<sup>20</sup> As a result, U.S. employers may use the GED credential as a signal of known productivity traits within the pool of foreign-born and foreign-educated workers. Clark and Jaeger do not explore the possibility that foreign-born and foreign-schooled workers who obtain a GED may develop substantial human capital on the road to acquiring the credential, including time spent learning to read and write in English.

The consistent finding that low-skilled dropouts seem to benefit from a GED but higher skilled dropouts do not has two possible explanations. First, low-skilled dropouts, especially those who are young, tend to have very spotty work histories. Often, the job application, in which one's recent work history is exposed, is the first screen employers use for entry-level jobs. Given two individuals with weak applications, employers may use the GED as a signal that one individual has adjusted attitudes and behaviors in ways that will provide relatively more productivity. To the extent that higher skilled dropouts have better work histories and hence better applications, employers may rely less on the GED as a signal of potential productivity.

A second explanation for the differences in the returns to a GED by skill level comes from human capital theory. The human capital benefits of the

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<sup>19</sup> Table 5a of Clark and Jaeger (2002).

<sup>20</sup> This is consistent with other work looking at the returns to schooling when the schooling was obtained in another country. In particular see Schoeni (1997), Bratsberg and Ragan (1999), and Friedberg (2000).

GED may be small for dropouts who leave school with higher skills. These higher skilled individuals can pass the GED with little extra preparation, and as a result, they add relatively little to their store of human capital by taking the GED tests, compared to equally high-skilled dropouts who do not attempt the GED. However, for individuals with relatively low skills, there may be substantial skill building involved in positioning themselves to pass the GED exams. For these individuals, the human capital benefits of the credential at the margin could be substantial. Whether a human capital or a signaling story best explains the observed results depends largely on how well employers observe or learn about the skill levels of employees or prospective employees.

***Lesson 3: The Economic Payoffs to a GED Take Time to Accrue.*** In the previous section, the Tyler et al. (2000) estimates of the GED's impact on earnings were measured five years after receipt of the credential. Estimates described in the Murnane, Willett, and Boudett (1999) paper were also five years after the GED was obtained. In both cases, the emphasis on measuring outcomes some years after receipt of the GED is important because both studies find that the estimated impact of the GED tends to grow over time. Tyler et al. show that the GED earnings advantage grows during the first five years after receipt of the credential, and it is only by the fifth year that the earnings difference is statistically significant.

Three other post-1997 papers support the finding that it takes time for the GED to have a payoff in the labor market. Two of these papers (Boudett, 2000; Murnane, Willett, & Boudett, 1999) use the longitudinal nature of NLSY data to estimate the GED's effect on wage and earnings growth. The first paper shows that the linear rate of wage growth of low-skilled, male GED recipients increased by approximately 1.5% over the predicted rate of growth in the absence of the credential.<sup>21</sup> As a result, if the wages of low-skilled, male GED holders were compared to those of low-skilled, male uncredentialed dropouts one year after the receipt of the credential, only small and statistically insignificant differences would be observed. The wage difference after five years, however, is 6% and statistically significant.

Similarly, estimates in the Boudett (2000) paper show that the post-GED earnings of female dropouts grow at a faster rate than do the earnings of uncredentialed female dropouts. In the first year after receipt of a GED, female dropouts with the credential have mean earnings that are

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<sup>21</sup> Table 4, Model 1 of Murnane, Willett, and Boudett (1999).

only about \$300 greater than the mean earnings of uncredentialed female dropouts. After seven years, however, those with a GED have predicted earnings that are \$1,300 greater than females without a GED.<sup>22</sup>

Tyler (2001) uses GED data from Florida to provide further evidence on the timing of GED effects. His results are based on a longitudinal data set of male dropouts who attempted the GED in Florida between the years of 1994 and 1998, merged with quarterly earnings from the Florida unemployment insurance (UI) system. Quarterly earnings are available from the first quarter of 1993 through the last quarter of 1999. Tyler finds that GED holders earn under \$100 per quarter more than uncredentialed dropouts do for the first 10 quarters after they obtain their GED and that these differences are not statistically different from zero. Around the 11th or 12th quarter after the GED attempt, however, the earnings advantage for those with a GED begins to climb. About five years after the GED attempt, GED holders earn about \$400 more per quarter than uncredentialed dropouts. This 15% earnings advantage is close to the other estimates reviewed in this chapter, and it is especially close to the five-year Tyler et al. (2000) estimate based on different data and a different research design and estimation method.

***Lesson 4: Postsecondary Education and Training Are Fruitful But Little-Used Routes to Economic Success for GED Holders.*** GED-related research has found that among dropouts, acquisition of a GED led to a greater probability of obtaining postsecondary education or training provided by either the government or a proprietary school.<sup>23</sup> This raises the question of whether or not GED holders benefit from engaging in these activities and, if so, whether they obtain enough postsecondary education or training to have an impact on labor market outcomes.

NLSY-based evidence for males on both of these questions is available in Murnane, Willett, and Boudett (1999). They find that each year of college that a GED holder completes results in a 10.8% hourly wage differential.<sup>24</sup> These returns to postsecondary education are similar to the returns Kane and Rouse (1993) found for regular high school graduates. Thus, it appears that postsecondary education pays off as handsomely for GED holders as it does for regular high school graduates. However, Murnane et al. also find that only 12% of the GED holders in their data completed at least 1 year of college, and only 3% acquired at least an associate's

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<sup>22</sup> Table 3, Model 1 of Boudett (2000).

<sup>23</sup> See for example Murnane, Willett, and Boudett (1997).

<sup>24</sup> Table 4, Model 2b of Murnane, Willett, and Boudett (1999).

degree.<sup>25</sup> Thus, although using the GED to gain access to academically oriented postsecondary education is a good investment for dropouts, very few actually use the GED for this purpose.

Estimates from the same paper indicate that dropouts who received a year of on-the-job training had a 44% hourly wage differential.<sup>26</sup> As employers likely target the most productive workers for training investments, it is likely that this overstates the effect of the training itself on wages. Even so, only 18% of the male GED holders in the Murnane et al. (1999) study obtained *any* on-the-job training, and the median time spent in on-the-job training for those who had any training was only 63 hours.<sup>27</sup> Like postsecondary education, on-the-job training appears to be a valuable activity for GED holders but one in which few spend very much time.

A final lesson from this study is that the one type of human capital investment in which a large percentage of male GED recipients participated—off-the-job training—did not result in higher wages. Off-the-job training in the study is defined as government-sponsored training or training provided by a proprietary school. Forty-one percent of the GED holders obtained some off-the-job training, and the median amount of training time for those who obtained any was 569 hours. However, this type of vocational training had no measurable effect on their wages.<sup>28</sup>

Results in Murnane, Willett, and Tyler (2000) based on HSB data support these patterns. In that paper, the returns to an extra year of postsecondary education are the same for males with a regular high school diploma and male GED holders. Results also show, however, that 58% of the regular high school graduates in the HSB have more than one year of postsecondary education, but only 11% of the male GED holders in the HSB have more than one year of postsecondary education. Meanwhile, 19% of the GED holders have more than zero but less than one complete year of postsecondary education.<sup>29</sup> It is not clear whether the relatively large percentage of GED holders in this category results from attrition from multi-year programs or from participation in short-term vocational programs located in such academic settings as community colleges.

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<sup>25</sup> Table 2 of Murnane, Willett, and Boudett (1999).

<sup>26</sup> Table 4, Model 2b of Murnane, Willett, and Boudett (1999).

<sup>27</sup> Table 2 of Murnane, Willett, and Boudett (1999).

<sup>28</sup> Table 2 (for the sample statistics on percentages and hours associated with off-the-job training) and Table 4, Model 2b (for the estimated effect of off-the-job training on log wages) of Murnane, Willett, and Boudett (1999).

<sup>29</sup> Table 4 of Murnane, Willett, and Tyler (2000).



The relationship between GED acquisition and postsecondary education for females in the HSB is very similar to that reported here for males. Tyler, Murnane, and Willett (2001) find that the returns to postsecondary education are the same for regular high school graduates and for GED holders. However, only 18% of the female GED holders in HSB have more than one year of postsecondary education, and 16% have some, but less than a year, of postsecondary education.<sup>30</sup>

Boudett (2000) studied the effect that the GED has on the postsecondary education and training outcomes of females. Her findings for female dropouts, based on NLSY data, are similar to what was found for males. First, the returns to each year of postsecondary education are as high for GED holders as they are for regular high school graduates. However, as is the case with males, female GED holders obtain relatively little postsecondary education. Among women who are 24 years of age and have a GED, 11% have completed a year or more of postsecondary education but have no degree, and .5% have obtained at least an associate's degree. The figures for women aged 29 are similar, 20% and 3%.<sup>31</sup>

The second result in Boudett (2000) matches what was found for males concerning on-the-job training. Female dropouts who obtain on-the-job training have higher wages and earn more than those who do not, but most dropouts, including GED holders, accumulate very little on-the-job training.<sup>32</sup>

One departure in the Boudett study is that for females, off-the-job training appears to pay dividends. A year of off-the-job training is associated with earnings gains of \$1,239 in each subsequent year. These earnings gains are primarily the result of off-the-job training being associated with an increase in hours worked, rather than with hourly wage gains.<sup>33</sup> It is not clear why off-the-job training is associated with earnings gains for females but not for males. It could be that females engage in different forms of off-the-job training, particularly when that training is at a proprietary school. It is clear, however, that, as is the case with males, most of the training female GED holders receive is obtained off of the job. Forty-six percent of the female GED holders obtained some off-the-job training, and the median training time was 527 hours for those who received any training.<sup>34</sup>

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<sup>30</sup> Table 6 of Tyler, Murnane, and Willett (2001).

<sup>31</sup> Table 2 of Boudett (2000).

<sup>32</sup> Table 2 of Boudett (2000).

<sup>33</sup> Table 4 of Boudett (2000).

<sup>34</sup> Table 4 of Boudett (2000).



Berkthold, Geis, and Kaufman (1998) used data from the National Education Longitudinal Study of 1988 (NELS88) to study the postsecondary education and training patterns of dropouts. Their results complement what we have learned from studies based on NLSY and HSB data. Using NELS88 data provides the advantage of a more recent picture of what happens to dropouts in the years after their cohort graduates from high school. NELS88 is based on a nationally representative sample of students who were in the 8th grade in 1988 and graduated from high school in 1992, provided they had remained at their grade level. A disadvantage is that the latest available survey of the NELS88 national sample, conducted in 1994, provides only a two-year horizon after the cohort's expected year of high school graduation.

The Berkthold et al. (1998) study finds that of those in the NELS88 sample who obtained a regular high school diploma without ever dropping out, 78% had been in some kind of postsecondary education program by 1994. Meanwhile, only 40% of GED holders and 11% of the uncredentialed dropouts had any postsecondary education by this time. In terms of where individuals obtained their postsecondary education, 60% of the high school graduates were enrolled in or had completed a postsecondary degree-granting program, 9% were enrolled in or had completed a certificate-granting program, and 9% were in a program that did not lead to a certificate, license, associate's degree, or bachelor's degree. In the same categories, figures for GED holders were 20%, 15%, and 5%, and for uncredentialed dropouts, they were 1%, 7%, and 3%.<sup>35</sup> In a separate tabulation, Berkthold et al. find that 6.5% of the regular high school graduates in NELS88 had credits in vocational or technical courses at any school, and 57% had credits in academic courses at a 2- or 4-year college by 1994. Meanwhile, almost 10% of the GED holders earned credits in vocational or technical courses, and only 14% had credits in academic courses.<sup>36</sup>

Thus, two years after their cohort had graduated from high school, dropouts who had acquired a GED by this time had substantially less postsecondary education than regular high school graduates, and relatively more of their postsecondary education was vocational or technical training instead of academic courses leading to a degree. At the same time, GED holders are observed to have more favorable postsecondary education patterns than do uncredentialed dropouts.

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<sup>35</sup> All of these figures are based on Table 15 of Berkthold, Geis, and Kaufman (1998).

<sup>36</sup> These figures are based on Table 9a of Berkthold, Geis, and Kaufman (1998).

A recent report by the U.S. Census Bureau provides a longer horizon for the postsecondary and training experiences of GED holders. Using the longitudinal data in the Survey of Income and Program Participation (SIPP) data set, Bauman and Ryan (2001) report that 30% of the GED holders in that data set have some postsecondary education but no degree, and 8% have a bachelor's degree or higher. One explanation for the higher levels of postsecondary education in the SIPP data than in the estimates based on the HSB, NLSY, or NELS88 data sets could be that SIPP respondents were older when their postsecondary education levels were measured. The papers reviewed in this section using the HSB looked at individuals who were approximately 27 to 30 years of age in 1994, whereas the studies based on the NLSY used individuals who were 29 to 32 in 1994, and the NELS88 respondents were only about 20 years of age in 1994. In contrast, 46% of the SIPP sample that Bauman and Ryan studied were between the ages of 30 and 49, and 32% were 50 years of age or older. These differences suggest that a non-trivial portion of GED holders who obtain postsecondary degrees do so later in life.<sup>37</sup>

A smaller but more focused study examined GED holders at a 2-year public college. Hamilton (1998) identified 276 students with a GED credential who obtained their GED before the age of 21 and enrolled between fall 1991 and fall 1996. Transcript data indicated that 85% of the GED holders required remedial course work. On the other hand, the study found that the academic course completion ratio and the grade point average for GED holders were only slightly lower than for the average student at the college.

Complementing this work, another study analyzed 251 students at a small 4-year college who had a GED credential to determine how well GED test scores predict college grade point average (Rose, 1999). The unique feature of this study was the availability of both ACT (American College Test) and GED test scores for the sample of GED holders. The author found that, in a regression of grade point average on ACT scores and GED test scores, the ACT scores are reliable predictors of college grade point average but GED test scores are not. Unfortunately, this study does not give information regarding the correlation between ACT and GED scores or the correlations between each of these test scores and grade point average. These statistics would help in understanding how well each test, on its own, predicts grade point average, as well as the extent to which

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<sup>37</sup>This is not unexpected as a non-trivial portion of individuals obtain a GED later in life. For example, in 2001 about one third of the GED credentials awarded went to individuals 25 years of age or older.

multicollinearity between ACT and GED scores might be a problem in this analysis.

Ignoring for a moment whether these results can be generalized to a larger population, there are two implications in the results from these studies of GED holders in two small colleges. First, it appears that the GED test may not be a particularly effective measure of the skills required to succeed in postsecondary academic course work. This conclusion derives from the facts that (a) high percentages of dropouts who pass the GED need at least some remediation before engaging in postsecondary academic course work, and (b) the GED test is not predictive of college grade point average. However, the second implication, drawn largely from the Hamilton (1998) study, is somewhat more positive. That study suggests that given proper remedial work, GED holders perform college academic course work about on a par with the average college student.

The majority of dropouts who attempt the GED indicate that they do so to obtain further education. However, a review of the data indicates that these desires are rarely fulfilled. Although some GED holders engage in postsecondary education after receiving their credential, very few accumulate many credits, and even fewer obtain any type of postsecondary academic degree. These results hold important implications for the future economic success of GED holders in an economy that has increasingly turned against those lacking some postsecondary education.

## CONCLUSION

### Summary of the Lessons Learned

The GED credentialing program has evolved over the last half century from its small military-based roots to the quintessential “second chance” education program in the United States. This exam-based credential’s phenomenal growth in the 1960s and 1970s can be attributed to several factors, including demand produced by the baby boom demographic bulge, marketing campaigns by the GEDTS, extending the GED opportunity to such new populations as state and federal prisoners, the passage of the Adult Education Act and subsequent amendments, and the linkage of the GED to such postsecondary student loan and grant programs as the Stafford Loan and the Pell Grant. The effects on the GED program of more recent initiatives such as the National Institute for Literacy and Equipped for the Future, as well as the passage of the economically focused Workforce

Investment Act, can largely be seen in the development of the latest version of the GED exams. The overall message of the GED's history is that the program operates not in a vacuum but in a milieu in which state and federal mandates, organizations, and initiatives all exert pressures and generate expectations to which the GED program must respond.

Most of the education research has examined the economic benefits of the GED. The early research in this area established that GED holders are not the labor market equivalents of regular high school graduates. More recent research has turned to comparing GED holders and uncredentialed dropouts. This research tends to show that individuals who leave school with low skills typically benefit from obtaining a GED, but there are no statistical differences in the labor market outcomes of higher skilled GED holders and higher skilled uncredentialed dropouts.

The research consistently shows that GED holders have as high a return on postsecondary education as regular high school graduates. The same research also shows, however, that relatively few GED holders obtain enough postsecondary education to make a difference in their economic outcomes.

Meanwhile, new lines of research raise questions about whether the GED program induces students to drop out of high school who would otherwise graduate. This is a very difficult research topic, and more will have to be done in this area before we have convincing answers.

### **Implications for Policy**

Obtaining a GED has become a well-known and powerful goal in the world of adult education. Obtaining a GED represents a real step up for many adults, and in this sense, the GED program mirrors the K–12 education of a distant past, in which the end goal was to obtain a high school diploma. For quite some time now, efforts at the K–12 level have shifted to emphasizing a high school diploma as only the first step toward further education. In adult education, the rhetoric on this topic is stronger than the reality. Based on the low numbers of GED holders who obtain substantial amounts of postsecondary education, the GED remains the education capstone for the great majority of adult learners. This is partly a function of the clientele GED programs serve. Most adult learners have greater family and employment responsibilities and lower levels of available income than the typical 18-year-old high school graduate contemplating college. Nevertheless, a continued focus on the GED as the end goal of adult education will only leave adult learners further and further behind in a fast-changing economy.

A clear message from the available research is that GED programs should be much more tightly linked to additional education and training. This suggests, for example, that GED preparation programs that may make adult learners cognizant of and more comfortable with a postsecondary education environment may be more successful in moving learners into postsecondary education. Measurement of the GED preparation programs' effectiveness should include not only indicators for acquisition of a GED, but also indicators for the percentage of program participants who later enroll in postsecondary education. Adult learners can be tracked by linking adult education program data to postsecondary education data via Social Security numbers. Many states are already well positioned for this type of tracking, and the NRS provides additional impetus for more rigorous, robust, and inventive means of tracking adult learners. This tracking should be a goal of national and state adult education policy.

One lesson from the GED program is that there may be value in thinking about awarding certificates based on either exams or performance to adult learners below the level of GED preparation. If employers were to value a certificate demonstrating that an individual had successfully completed an ESOL or ABE course, additional certificates might serve as motivating "carrots" in ESOL or ABE courses and lead to higher program completion rates and more overall learning in these programs. The ascendance of the GED program suggests that it may be useful to create pilot certification programs at lower levels of adult education in selected communities.

### **Implications for Research**

Generating tighter linkages between GED programs and postsecondary education should be a policy goal. Equally important, however, is research that can help us understand the primary factors that depress GED holders' postsecondary enrollment patterns. Is the cause a lack of income for college or lack of information about available sources of postsecondary financial aid? Is it lack of affordable and acceptable day care or time constraints associated with employment? Is it transportation problems or simply fear and uncertainty because the college campus is an unknown environment? Until we know the answers to these questions, we can only guess which areas should be addressed first.

Research into whether the presence of the GED program tends to induce students to drop out of school also needs expansion. Economists and others have questioned the potential role of the GED in raising dropout rates, indicating a recognized need for more research. This is a particularly

difficult research question because it is hard to find a suitable comparison group that could provide information on the counterfactual question: What would a given group of GED candidates have done had there been no GED program? One potential way to study this question is through a closer look at so-called “in-school” GED programs. Certain states, such as Florida and Texas, allow some high schools to offer GED preparation programs to students who are determined to be at risk of dropping out of school. That some of these programs may come and go in the same school or that there may be similar schools where such programs do not exist suggests the possibility of being able to construct comparison groups that approximate the relevant counterfactual.

Finally, all of the GED research to date has been concerned with economic or postsecondary education outcomes. There are, however, other research questions that hold enormous importance for the individual and society. For example, do the children of GED holders have better schooling, health, and social outcomes because their parents earned a GED? Are GED holders themselves healthier because they have obtained this credential? Are they better, more stable parents, neighbors, and citizens? Do GED holders have lower crime-participation rates and higher levels of civic engagement than they would have had without this credential? Even if there were no economic benefits associated with obtaining a GED, research that provided positive answers to any of these questions could affirm the importance of America’s “second chance” credential.

## **Implications for Practice**

Several lessons from the research have implications for practice in GED preparation programs. First, because the largest economic payoff from obtaining a GED accrues to the least skilled, GED programs need to focus on helping these students succeed. To accomplish this, GED preparation programs should focus first on helping adult learners stay in a program. Research in other areas of adult education suggests that adult responsibilities and other barriers result in low completion rates for adult education programs (Comings, Cuban, Bos, & Taylor, 2001). Second, where it is not already happening, GED preparation programs need to refocus resources to help the least skilled develop human capital, even at the expense of overall GED pass rates in a given program. Such a refocusing of resources and energy may be increasingly hard, given the incentives put in place by the NRS requirements to show performance results. It is much easier for a GED program to measure success in the number of individuals who

acquired a GED than it is to show the amount of human capital accumulation resulting from the program. Nevertheless, research evidence indicating that a GED pays off for the least skilled but not for more highly skilled dropouts gives a clear directive that GED preparation programs need to focus resources on the skill development of lower skilled adult learners. On the other hand, it is likely that the higher skilled GED holders have the best chances of succeeding in postsecondary education, which leads to the second implication of this review for adult education practice.

The research consistently shows that relatively small percentages of GED holders obtain much postsecondary education, even though well over half of all GED candidates indicate that they are acquiring the credential to get further education (GED Testing Service, 2002). Thus, it seems that GED holders currently obtain less postsecondary education and/or training than would seem desirable from either the individual's or society's viewpoint. If this is indeed the case, then the message for GED preparation program practitioners—from curriculum designers to program administrators to teachers and counselors—is clear: It is critically important to help adult learners see the connection between additional education and training and their future economic success. There are adult education curriculum materials that explicitly make this link, including *Beyond the GED*, developed by the National Center for the Study of Adult Learning and Literacy (NCSALL; see Fass & Garner, 2000). In addition to a curricular response, there may be a need to educate some practitioners about the importance of seeing the GED as a steppingstone to further human capital development rather than as an end goal. There may also be a need to provide training so that teachers have effective strategies for conveying to adult learners the importance of postsecondary education and training in today's labor market.

There is a caveat to this call for change at the practitioner level, however: There is no need to refocus practice if, from society's point of view, GED holders are currently making the correct investment decisions about postsecondary education and training. That is, unpalatable as it seems from an equality standpoint, the few GED holders who currently get more education and/or training may be exactly the ones that society would want to engage in these activities. The reason may be that it is only for these individuals that the lifetime benefits from the extra human capital outweigh the costs to society of providing the additional education and/or training.<sup>38</sup> In this scenario, other individuals whom we might induce to obtain more

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<sup>38</sup>To be precise, the present discounted value of the marginal lifetime benefits from the education or training outweigh the present discounted value of the costs.



education or training would actually have lower economic returns to the additional education than we would have expected, based on the returns to postsecondary education that we observe for the current GED holders who go on to college.

There are, of course, reasons to believe that this ideal equilibrium is not being met. It may be, for example, that GED holders do not sufficiently invest in further education or training because they do not possess good information about the importance to their future of human capital development beyond GED acquisition, or they may lack the resources to finance further education or training. These are both forms of “market failure” that lead to incorrect investment decisions from society’s point of view.<sup>39</sup> Thus, there are roles that practitioners can (and in many cases already do) play in helping adult learners acquire the level of education and training that is right for them. Practitioners can help learners understand the importance of education beyond the GED. They can provide information about college and vocational training programs and the availability of financial aid.<sup>40</sup> They can help learners fill out the often-complicated admission and financial aid forms. And they can help their students think about the logistics of navigating college or training programs while adult responsibilities are waiting at home. In short, to the extent that there is room for improvement in using GED preparation programs to foster a culture of additional education, there is room to improve the lives of adult learners by using the GED credential as a steppingstone to further education.

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<sup>39</sup> In this case, the market being considered is the market for education, where individuals choose the amounts they “purchase.”

<sup>40</sup> Kane (1999) argues that individuals from low-income, low-education families are often unaware of the extent or availability of student financial aid for postsecondary education and training.



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# 4

## Massachusetts: A Case Study of Improvement and Growth of Adult Education Services

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John Comings  
Lisa Soricone

### INTRODUCTION

Federal funding for adult education has grown slowly over the last decade, but a handful of states have expanded their adult education services at a faster rate through state funding. In fact, seven states (California, Florida, New York, Michigan, Illinois, Massachusetts, and North Carolina) account for 80% of all the state funds supporting adult education services (Chisman, 2002). These state adult education systems have been able to prove their worth to governors and legislators. Massachusetts is one of these states, and this case study explores how its adult education<sup>1</sup> system has been able to grow and improve dramatically over the last 15 years.

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<sup>1</sup> The term “adult education” throughout this chapter refers to instruction in adult basic education, adult secondary education, and English for speakers of other languages.

Massachusetts is geographically a small state, but it has a mid-sized population of approximately 6,379,000 (U.S. Census Bureau, 2002). The state's economy is largely based on research and development, service industries, and tourism, which represents a shift from the emphasis on agriculture in the 18th century and manufacturing in the 19th and first half of the 20th centuries.<sup>2</sup> Reports from the Massachusetts Institute for a New Commonwealth (MassINC, a nonpartisan policy group) identified two challenges to the economy that have formed the foundation for current advocacy efforts in support of adult education services (Comings, Sum, & Uvin, 2000; Sum, Bahuguna, Fogg, Fogg, Harrington, & Palma, 1998). The first challenge is the limited growth of the workforce. Over the entire decade of the 1990s, the Massachusetts workforce grew by only 1.5%. Only three states had a smaller growth rate (Comings et al., 2000). Without foreign immigration, the workforce would have declined during that time period. For the foreseeable future, the state will depend on foreign immigration for its workforce growth (Sum et al., 1998). The second challenge is the development of a new economy built on a foundation of communications and information technology. This technology helps each worker be more productive, but the new economy requires a better-educated workforce. The MassINC reports identified the provision of English language services to immigrants and basic skills and high school equivalence training to undereducated workers as critical to developing a more educated workforce.

Comings et al. (2000) estimated the size of the population that needs these services by looking only at adults between the ages of 18 and 64, those who make up most of the state's workforce. The report found that:

- 195,000 adults did not speak English well;
- 280,000 adults spoke English well but did not have a high school diploma or GED;
- 667,000 adults spoke English well and had a high school diploma or General Education Development (GED) certificate but had literacy and math skills at Level 1 or 2 on the five-level National Adult Literacy Survey.

These three groups represent 35% of the state's 3.2 million workers,<sup>3</sup> and all of these adults, most of whom work, face a barrier to full participation

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<sup>2</sup>"Massachusetts" in *Encyclopaedia Britannica*. <http://www.search.eb.com> [Accessed October 24, 2002]

<sup>3</sup>This figure refers to individuals aged 16 to 64 who are active in the labor force. It excludes full-time students, the incarcerated, and individuals not seeking employment.

in the new economy. The Comings et al. (2000) study noted that the skills needed for success in the labor force are related to those needed in the other adult roles of parent, family member, citizen, community member, and lifelong learner.

In the past 15 years, total state and federal funding for adult education services in Massachusetts increased from below \$4 million in 1987 to \$45 million a year in 2002. Two thirds of the system's present funding is from state revenues.<sup>4</sup> Over this same time period, the per-student expenditure grew from \$150 to \$2,000 per year.

The growth of funding in Massachusetts was supported by changes in the adult education system that occurred as the result of a comprehensive reform effort. That reform effort has been characterized by commitments to:

- Strong leadership and a sustained advocacy effort;
- Improvements in the quality of services at the expense of quantity;
- Institutionalization of staff and program development;
- The involvement of multiple resources to support students.

Each of these elements has contributed to the improvement and expansion of adult education services in Massachusetts.

The experience of Massachusetts offers important lessons to state adult education systems that are still trying to garner increased support from their political leadership. This case study first describes the history of adult education services in Massachusetts and provides an overview of the state's current adult education system. The case study then explores the reform movement that began in 1987 by focusing on the four commitments just listed. It concludes with the lessons that other states can learn from the experience of Massachusetts.

The case study draws on published and unpublished reports and on the personal reflections of five adult education leaders<sup>5</sup> who also read and commented on drafts of the chapter. This analysis is not meant to serve as an evaluation and, as a result, does not focus on unsuccessful initiatives and mistakes made during the reform process. The chapter describes what appear to be the most important elements contributing to the development of the adult education system in Massachusetts. This focus on successful

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<sup>4</sup>Sources of the PY02 (Program Year 2002) budget for adult education in Massachusetts broke down as follows: 65% state, 23% federal, and 12% other, including local contributions and all additional funding not directly granted to ACLS but containing a component that pertains to adult education (e.g., Even Start and Americorps).

<sup>5</sup>Bob Bickerton, Mina Reddy, David Rosen, Roberta Soolman, and Sally Waldron.

reform efforts provides useful insights to educators embarking on, or engaged in, the process of strengthening their adult education systems.

## HISTORY

The history of adult education services in Massachusetts is comprised of four distinct periods. The first period includes several efforts in the 19th and first half of the 20th centuries that provided a foundation for the establishment of a system. The second period began in the 1960s with the passage of federal legislation that authorized funding of programs specifically targeted to adults seeking to acquire basic skills, English literacy, or a high school equivalency. The third period began in the late 1980s, when a serious effort to expand and improve adult education services began to bring coherence to a disconnected set of programs. The fourth period began in 1998 with the enactment of the federal Workforce Investment Act.

### The Early History

Martin (1970) describes this early history in the following way. Massachusetts was one of the first states to recognize the importance of offering publicly supported learning opportunities to adults. In 1847, First Secretary of the Massachusetts Board of Education Horace Mann proposed a law that authorized cities and towns to appropriate money to support schools for the instruction of adults in reading, writing, English grammar, arithmetic, and geography. As the state's immigrant population grew in the latter part of the 19th century, programs to teach English and citizenship were established.

By the 1950s, the priority of adult education had shifted toward high school equivalency programs, and by the end of the 1960s, the GED tests had become the principal means through which the state awarded a high school equivalency. Through the 1950s and early 1960s, the state government showed little concern with adult education programs. At the end of this period, the most significant form of adult education services in the state consisted of volunteer-based tutoring instruction provided by privately funded local organizations. For more than 100 years, Massachusetts had acknowledged that adult education was a state responsibility but had provided very little funding for it.<sup>6</sup>

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<sup>6</sup>This is true with the possible exception of the turn-of-the century immigration (1890–1910) period, during which per capita expenditures for citizenship classes were significant, but accurate data on these expenditures is unavailable.

## **Establishing a Foundation**

In 1966, the state government commitment increased with funding from the new federal Adult Education Act (AEA). As a result of the AEA, Massachusetts established its first comprehensive adult learning centers (Martin, 1970). One of the most significant aspects of the AEA was its requirement to appoint a state director of adult education, as this position provided the first statewide leadership for the field (National Institute for Literacy, 1995). The AEA also helped bring about in 1967 the first study of the status and needs of adult education in Massachusetts. The Massachusetts Adult Education Planning Project (MAEPP) surveyed adult education, determined problem areas, and made recommendations. MAEPP documented the fragmentation of adult education services when it identified 83 different state agencies, scattered among different departments or reporting directly to the governor, that had some responsibility for adult education services.

Adult education services were supported through the 1970s solely with federal funds, through the AEA and programs such as Model Cities<sup>7</sup> and the Community Education and Training Act (CETA). The first state appropriation for adult education of \$600,000 was finally made in 1982. A successful effort by advocates in 1985 helped to raise the appropriation to \$2 million. By 1987, annual state and federal funding for adult education had increased to almost \$4 million.

At the end of this second period, Massachusetts had expanded its adult education services and built a foundation, supported by a combination of state and federal funding, on which an adult education system could be built. Despite this progress, the fragmentation of services identified by MAEPP still continued. Adult educators faced the challenge of creating a coordinated and effective system to serve adult students. Had they not met that challenge, services would probably have continued with meager funding and little state commitment.

## **Building an Effective Adult Education System**

The National Center on Education and the Economy (1995) states that during the 1980s, the U.S. Department of Health and Human Services and

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<sup>7</sup>The Model Cities project was an inner-city revitalization program of the Department of Housing and Urban Development launched in 1966 as part of President Johnson's War on Poverty.



the U.S. Department of Labor became involved in supporting educational services for adults or expanding existing support. These departments were interested in improving adult education services as a way to meet their agencies' goals. At the same time, the U.S. Department of Education pursued its own efforts to strengthen state adult education systems with technical assistance and research. Massachusetts became a partner in this effort when it constituted an advisory committee to look at adult education, community education, and student services. A group of leaders in the field requested the formation of an extended committee, which included one advisory committee member plus the group of leaders, to focus on adult education. The extended committee approached the Commissioner of Education requesting the establishment of a system of adult education. He established a Bureau of Adult Education and allowed the director to report directly to the commissioner. The Board of Education also established the right of every Massachusetts resident to obtain the basic academic and communication skills expected of a high school graduate, regardless of age, and the Massachusetts Department of Education (MDOE) developed the state's first adult education 4-year plan (1986–1990).

The establishment of the Bureau of Adult Education led to two significant actions. First, MDOE hired a new director who had the support of the adult education leadership. The adult education leaders on the extended committee negotiated to participate in the search for the director. MDOE agreed to this request because it lacked expertise in adult education. Second, MDOE convened task forces on program effectiveness, funding, staff development and certification, and high school equivalency. The activities of these task forces culminated in a set of recommendations that guided development of the second 4-year plan (1990–1994). Although the reform movement started in 1987 with the convening of the task forces, the implementation of reform started with this second 4-year plan.

This plan had two initiatives. One was based on the need to strengthen the existing array of adult education programs and services and forge them into a comprehensive and effective system. This was accomplished through the establishment of the System for Adult Basic Education Support (SABES), which provided technical assistance and training to build the programs' capacity and link funding to specific measures of program quality (World Education, 1992). The second initiative was a planned expansion of the system, which would close the gap between supply and demand of instructional services in stages, but there was no political will at the time to fund that expansion.



In 1993, that political will began to develop when adult education advocates argued that adult education should be included in the state's Education Reform Act (ERA). Once this idea gained acceptance, the ERA included the stipulation that the Department of Education, in coordination with other state agencies, should develop a comprehensive system, subject to appropriation, for the delivery of adult education services that would lead to universal adult literacy, better employment opportunities, and adults being better equipped to carry out their roles as family members and citizens. The addition of adult education to this legislation expanded and clarified the scope of adult education programs and set adult education objectives for the Department of Education. These objectives included:

- Development of a full continuum of services that take an adult from the lowest level of literacy or English language proficiency through high school completion leading to advanced education and training.
- A network of trained, full-time professional instructors, qualified to provide high quality effective services.
- A strong documentation and evaluation capacity that would enable the state to determine which methods of instruction and means of service delivery are most effective in educating adults.
- Coordinated accountability mechanisms that simplify the existing reporting and refunding processes. (Education Reform Act, Chapter 69, Section 1H)<sup>8</sup>

Section 75 of the ERA also established the Adult Education Committee, the purpose of which was to study the adult education system and then recommend adequate and appropriate funding mechanisms. The Committee consisted of single representatives from the Departments of Education, Public Welfare, and Employment and Training, along with the education and human services secretaries, the governor or lieutenant governor, two members of the Education and the Ways and Means Committees selected by the Senate president and Speaker of the House, the secretary-treasurer of the AFL-CIO, and not less than five representatives drawn from a diverse cross-section of adult education providers and advocacy groups.

The committee's final report, known as the *Grossman Report* (MDOE, 1995, named after the committee chair), began building political will in the state legislature by persuasively documenting the huge need for adult

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<sup>8</sup> Available at [http://www.doe.mass.edu/edreform/erfacts/98/erfacts98\\_a.html](http://www.doe.mass.edu/edreform/erfacts/98/erfacts98_a.html)

education compared with the tiny fraction of potential students served by the adult education system. The report also brought attention to the thousands of adults who were waiting for classes, showing how the system did not meet the active demand for services. The committee found it difficult to clearly identify the number of people in need of adult education services and instead focused on the size of active demand, indicated by waiting lists. The report recommended a 5-year plan to close the gap between the demand for and supply of adult education. To achieve this, the plan called for annual budget increases of \$7 million over a period of 5 years, amounting to a \$35 million increase overall. The report recommended that the increased funds should also be used to continue improving the quality of services. In 1996, shortly after the report was released, the state doubled its annual adult education budget to \$8 million, and for the first time, state funding for adult education exceeded federal funding. In each subsequent year, until 2000, the state increased the amount of money it devoted to adult education. By the end of this period, the state had a comprehensive adult education system that could implement, improve, and expand services.

### **The Workforce Investment Act**

In 1998, most federal support to adult education services came under Title II of the Workforce Investment Act (WIA; Balliro & Bickerton, 1999; Irwin, 1999; Northwest Regional Literacy Resource Center, 1999; National Institute for Literacy, 1998). The WIA consolidated more than 50 employment, training, and literacy programs into four block grants states could use for adult education and family literacy, disadvantaged youth, adult employment and training services, and the rehabilitation system. The WIA's focus on preparing people for employment and on family literacy did not necessarily diminish the importance of services for adults pursuing their education for other purposes, such as citizenship or personal improvement. The MDOE has maintained its commitment to remaining responsive to adult students and the goals they articulate.

The WIA established the National Reporting System (NRS) for performance accountability. The performance measures focus on four areas (core measures) of student achievement:

- Demonstrated improvement in literacy skill levels in reading, writing, and speaking in the English language, numeracy, 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 high school diploma or its equivalent.
- Other objective, quantifiable measures, as identified by the state agency and that can include input from local providers.

Each state's department of education must identify expected performance levels for its programs that show student improvement, and then negotiate an agreement with the U.S. Secretary of Education. Each state must also report annually to the Secretary of Education on its progress with respect to the performance measures, and this information, including comparisons with other states, is made public (National Institute for Literacy, 1998).

The WIA also includes a requirement for states to develop their own 5-year plan for improving adult education. These plans must be developed in consultation with literacy providers in the state and must include a description of the process used for public participation and comment on the plan. Each state plan must include an objective assessment of the literacy needs of individuals in the state. Each state is required to include specific goals for the first 3 years of its plan and is judged on the degree to which it meets those goals. Under the WIA, states were given the option to submit a plan by April 1999 or to request a year to transition and prepare a unified plan that would respond to each area (title) of the new legislation. Massachusetts opted to take this year of transition. This period allowed the adult education leadership to gather more feedback from the field in shaping its new state plan and grant application process.

The adult education leadership within the MDOE anticipated the changes that the WIA would bring about and prepared for these changes in a number of ways. The state had already begun to develop a program accountability system and to forge links with the workforce development system. Because the state had already put a structure for monitoring student-articulated goals in place, Massachusetts had its greatest success in responding to the WIA in the area of accountability. In addition, initiatives aimed at strengthening programs throughout the 1990s prepared the state to meet the performance demands of the new legislation.

Nonetheless, the WIA poses a number of persistent challenges. First, for programs that serve the lowest level learners, the WIA's outcome measures do not permit reporting of the progress within levels that many learners experience. Second, the outcomes that the WIA focuses on do not necessarily coincide with individual student goals. In some cases, individuals seek to learn to read for strictly personal reasons (e.g., greater

independence or to read to children). Massachusetts chose to evaluate outcomes for both WIA standards and student goals. Although the legislation did not preclude such an approach, it also did not provide additional funds to carry it out. Third, the WIA's requirements for follow-up on participants in adult education programs created a significant data collection burden for programs. Massachusetts provided funding for student follow-up and, as a consequence, exceeded its WIA requirement in this area. In the future, follow-up will involve data matching with Social Security numbers, but the collection of Social Security numbers as a means to track students remains a contentious issue. Some in the field view it as an infringement on student privacy rights. Finally, the WIA's requirement of measuring program performance based on standard, reliable, and valid instruments did not provide sufficient time for states to develop appropriate assessment systems. The demands of the legislation prompted Massachusetts to rely on existing standardized tests, which may not capture students' full range of skill development and progress. Consequently, Massachusetts has adopted existing assessment tools in the short run but plans to develop its own assessment system to meet both federal and state-selected outcomes.

The accountability system developed in anticipation of the WIA provided data for a report that made a case for greater support for adult education services. In 2000, MassINC published *New Skills for a New Economy: Adult Education's Key Role in Sustaining Economic Growth and Expanding Opportunity* (Comings et al., 2000). This report assessed the need for adult education services, estimated the size of the potential student population, and called for expansion and improvement of the existing adult education system. It resulted in putting adult education on the front page of the state's newspapers and reignited the political support that had waned since the *Grossman Report*. The governor and the state legislature proposed additional spending and new programs, but the economic downturn came at the same time. However, even though the last 2 years have produced cuts and even the elimination of many state services, adult education has been able to hold on to most of its gains.

## THE PRESENT SYSTEM

### Administration and Funding

MDOE administers adult education services through its Adult and Community Learning Services (ACLS) unit. The ACLS has about 35 profes-

sional staff and has been directed by Bob Bickerton, a former adult education teacher and program director, since 1988. ACLS oversees a planning process with the field and maintains relationships with the governor's administration and the state legislature around adult education. Its main functions are managing and distributing state and federal funds, collecting data about the adult education system, and supporting efforts to improve services. MDOE provides the majority of funding for adult education, but other state agencies provide funding as well. These agencies include the Department of Employment and Training, the Department of Corrections, the Department of Transitional Assistance, Commonwealth Corporation,<sup>9</sup> the Board of Library Commissioners, and the Board of Higher Education.<sup>10</sup>

Programs also receive funding from other sources. Some cities and towns include adult education in their school or city budgets. In 1995, 35 school districts reported school committee expenditures for adult education that ranged from \$125 to \$315,617 and totaled slightly more than \$2 million. Very little data are available about fee-based services offered by private for-profit and not-for-profit corporations, or the amount of private funding invested in adult education services. Figure 4.1 provides an overview of the sources of adult education funding. The data presented here cover only the state and federally funded programs.

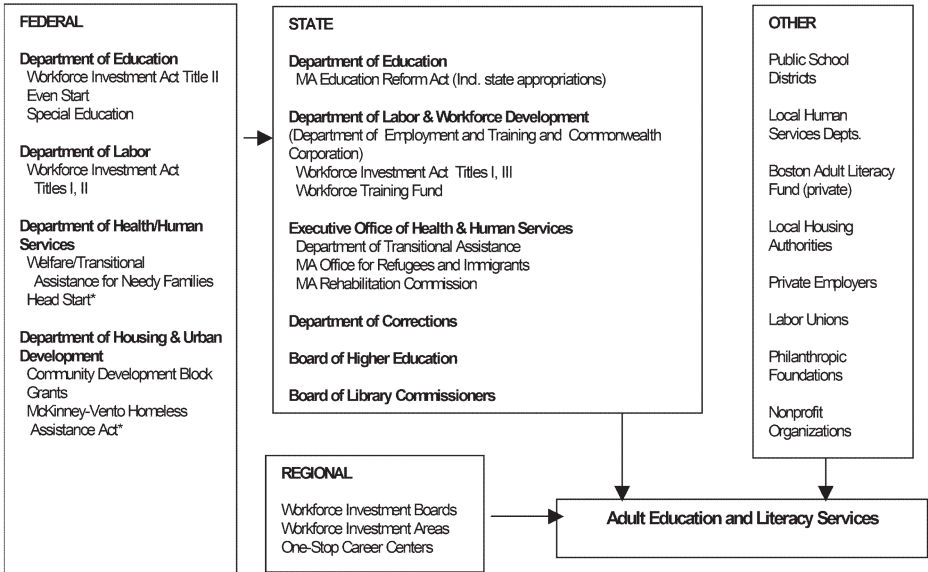
The network of providers in Massachusetts is diverse, and programs compete against each other for funding. The largest share of ACLS funding goes to community-based organizations (CBOs). The next largest share goes to school districts. A smaller share goes to community colleges and other postsecondary institutions, municipal agencies, correctional institutions, local workforce investment boards, and other workforce development agencies, as well as businesses and unions. Figure 4.2 shows the distribution of funds by type of service provider.

Service providers that submit applications for ACLS grants compete within their geographic region. An ACLS formula that takes the need for services into account by using the most recent census data determines funds available to regions. In addition, programs can apply for a smaller number of specific statewide set-asides that target funds for special populations (e.g., correctional or workplace education) or for support services

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<sup>9</sup>Commonwealth Corporation is a quasi-public organization that administers and delivers a variety of workforce development initiatives that serve the needs of businesses and workers.

<sup>10</sup>This refers to the Board of Higher Education's funding of Developmental Education at community colleges.



\* Indicates that funding goes directly to local programs.  
Note: Public School Districts use local tax-base funding for adult education.

FIG. 4.1. Funding sources for adult education.

to help address impediments to learning, such as child care and transportation. Special grants are also offered to improve services for students with learning disabilities.

The size of individual grants is determined using a series of formulas embedded in a rates system. This system applies student-hour rates to proposed services. These rates vary by type of service and represent a commitment to paying the real costs of adult education services. The system is tied to a set of guidelines that describe minimum standards for effective programs and outline what is needed for different program aspects (e.g., teacher–student ratio limits, instructional intensity and duration, minimum levels of program and staff development, and teacher salaries and fringe benefits).<sup>11</sup> According to the panel of stakeholders, this system has greatly reduced problems associated with unrealistic requirements and unfunded mandates, and represents an institutionalized effort to bring equity to funding decisions.

<sup>11</sup> The Massachusetts Department of Education *Guidelines for Effective Adult Basic Education* are available via the ACLS website <http://www.doe.mass.edu/acls/wiatitleii/adeguide.pdf>

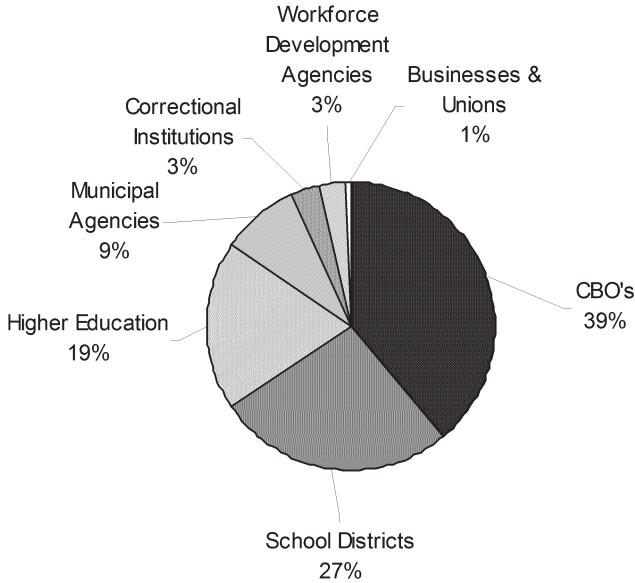


FIG. 4.2. Distribution of funds by adult education service provider. Total exceeds 100% because of rounding. Based on data for PY01 from "Massachusetts Adult Basic Education Overview: 21 June 2001," *MDOE Report to the Governor's Task Force on Adult Education and Training* (MDOE, 2001a).

## Programs

Adult education programs in Massachusetts vary in format, size, intensity, and location. They provide classroom-based instruction, one-on-one tutoring, and combinations of the two approaches. In addition, the state is currently piloting programs to test a distance learning model as part of a national project. Some programs offer 5–8 hours per week for a class, whereas others offer up to 15–20 hours per week. Some programs run in closed cycles of a few months to a year, and others have ongoing classes with open-entry admission to fill seats of students who drop out. Classes are held in a variety of venues, including community centers, social service agencies, workplaces, libraries, prisons, community colleges, churches, and schools (MDOE, 1996).

Adult education programs in Massachusetts provide instruction in adult basic education (ABE), adult secondary education (ASE), and English for speakers of other languages (ESOL). Programs offer a range of services to meet diverse student needs: family literacy, workplace education,

corrections education, education for the homeless, native language literacy instruction, citizenship education, health education, and education for adults with disabilities.

ACLS-supported programs are funded to provide a continuous sequence of instructional opportunities that enable students to progress from the most basic level of proficiency to a level of proficiency sufficient to meet their goals. For native speakers of English and immigrants who have fluency in English, programs provide two levels of basic skills instruction. For other immigrants, the programs provide three levels of ESOL instruction. For students whose English literacy skills are above the eighth grade level, programs provide preparation for the GED tests or another form of instruction that leads to an adult secondary school credential. To accommodate learner progress, each program must offer at least three levels of instruction within the same time period (morning, for example), although bilingual or native language literacy instruction may be limited to two levels. Recently, a new type of service was added to help adults successfully transition from adult education to further academic education in college or to specialized skill training.

Although most adult education services in the state are organized around classes, the work of volunteer tutors provides an important additional form of instruction for adult learners. The state makes use of volunteers in two ways. The largest share of funding goes to support volunteers who supplement instruction provided by paid teachers. The ACLS provides direct support for volunteer services through the Commonwealth Literacy Corps (CLC). Since its inception in 1987, the CLC has recruited, trained, and placed more than 10,000 volunteers in programs throughout the state. At present, ACLS estimates the number of its volunteers to be between 2,000 and 2,500. ACLS also funds volunteer services as the primary form of instruction. In Massachusetts, such services are provided through Literacy Volunteers of Massachusetts, the Eastern Massachusetts Literacy Council (a Laubach Literacy affiliate), and independent church and community-based efforts.

## **Practitioners<sup>12</sup>**

Practitioners have a range of educational and professional backgrounds. Some hold K–12 certification and have spent several years in school class-

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<sup>12</sup>Data was provided by ACLS with the help of Donna Cornellier, management information systems administrator.



rooms, whereas others have entered the field directly. In Program Year 2002 (PY02),<sup>13</sup> ACLS-funded programs employed 1,824 practitioners. This number includes teachers (74%), administrators (15%),<sup>14</sup> and counselors (11%).

Adult education teachers are a highly educated group. In PY02, 94% of teachers had at least a 4-year college degree, and 47% also had a graduate degree. Unfortunately, there is a high turnover rate among teachers. Fifty-seven percent have been with their programs for less than 2 years, and only 19% have been with their program for more than 5 years.<sup>15</sup> As teachers work in adult education, they gain valuable experience and frequently move on to other more promising jobs. As the state director notes, the adult education workforce often serves as a “farm team” for the K–12 system.

ACLS has been committed to improving the working conditions of adult educators, in part by increasing the number of full-time teaching positions. Currently, 11% of teaching positions are full-time.<sup>16</sup> In addition, ACLS has attempted to improve teacher salaries. The ACLS Rates System supports a salary rate for teachers of \$17.48 per hour (PY03) if fringe benefits are provided and \$21.85 if benefits are not provided, but it encourages local programs to use matching sources to increase pay beyond this level. If programs choose not to provide the suggested salaries, they are required to return the difference between the recommended minimum level and actual salaries. The potential savings cannot be used for other program purposes. ACLS hopes that this policy will help to ensure higher salary levels for all adult educators.

ACLS grants fund teachers for time spent in preparation, follow-up, initial assessment, recruitment, progress assessment, translation, counseling, and staff development. ACLS has been increasing this support regularly in an attempt to make adult education teachers’ salaries more competitive with comparable jobs, such as those of K–12 teachers. Although salaries vary across programs, only 6% of teachers currently earn below the suggested salary level.

<sup>13</sup> Program year corresponds to the fiscal calendar by which programs are funded. It runs from July 1 through June 30.

<sup>14</sup> Many administrators also act as teachers and counselors.

<sup>15</sup> Figures are for PY02.

<sup>16</sup> As the collection of ACLS data has changed, comparable percentages for previous years were not available. Comings, Sum, and Uvin (2000) reported that between 1994 and 1998 the number of full-time positions (including administrators, teachers, and counselors) more than doubled, reaching 557 of a total 1,535 staff members (which included teachers, administrators, counselors, and other staff).

## Students

At present, the state adult education system serves about 24,000 adults. The statewide waiting list includes more than 21,000 potential students.<sup>17</sup> Half of those on the waiting list are seeking English language services, for which potential students can wait up to 1 year, and the wait is longest in urban areas (Comings et al., 2000). The Massachusetts Department of Education reports that in PY02, 57% of students were enrolled in ESOL services, 30% in ABE services, and 13% in ASE services. Approximately 60% of the students were women. Whites (some of whom were immigrants) were the largest group in the system but accounted for only 26% of all students. Hispanics (most of whom were immigrants) were the next-largest group at 23%; 19% of students were African American (some of whom were African or Afro-Caribbean immigrants); 12% were Asian (most of whom were immigrants); and roughly 1% were Native American or Alaskan Native. The gender, racial, and ethnic mix of students has remained stable over the last several years.<sup>18</sup>

The majority of all students grew up speaking a language other than English at home, but English remains the single most common first language. Spanish is the second most common, followed by Portuguese and Haitian Creole. In PY02, 72% of the students were between the ages of 19 and 44, 7% were between 16 and 18 years old, and 21% were over the age of 45. In PY02, slightly more than half (59%) of all students were employed in the labor force, and 25% were unemployed but looking for work. The others were homemakers, retired, or not actively looking for work. The proportion of students receiving public assistance was 16%. As of PY02, 38% of students had a high school credential, 37% had some high school education, and 25% had completed eighth grade or less.

## Reports on the Effectiveness of the System

Two sources of information provide an indication of the success of the ACLS commitment to quality. The first is an outside evaluation, the MassINC study, and the second is the most recent performance report of the ACLS. The MassINC study (Comings et al., 2000) indicates the ways in which Massachusetts has become more successful at helping students meet their goals. The study looked at data from the program year 1998

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<sup>17</sup>This is an estimate made by ACLS staff in October 2002.

<sup>18</sup>PY02 data was provided by ACLS with the help of Donna Cornellier, management information systems administrator.

(July 1, 1997–June 30, 1998) for 19,800 participants in adult education programs across the state and looked at learning gains, hours of instruction, the probability of obtaining a high school credential, and the probability of finding a job. The authors of the study found that 56% of students in ABE programs gained at least one grade level equivalent (GLE), and 63% of students in ESOL classes gained at least one student performance level (SPL). Roughly 30% of ABE students gained at least two grade levels and a similar proportion of ESOL students gained at least two SPLs.

Internal reports on the system's effectiveness indicate positive results. According to a report issued by ACLS (MDOE, 2002), in PY00:

- 33% of students enrolled in ASE earned a high school diploma or equivalent.
- 39% of students who indicated they wanted to obtain a job actually did so within a single year.
- 39% of students credit the program with helping them to improve their own health and the health of their family.
- 55% of parents credit the program with enabling them to read and write more with their children.
- 17% of students at the highest level credit the program in any given year with enabling them to enroll in college or a postsecondary training program.

In addition, the state's adult education programs in PY00 averaged more than 120 hours of instruction per student per year, a rate well above the average of 97 hours in PY98 (Comings et al., 2000) and above the national average of 66 hours (U.S. Dept. of Ed. estimate for PY01). Overall, students in Massachusetts receive more hours of instruction than their counterparts across the country. In their study of adult learners in Massachusetts, Comings et al. (2000) found that as students had more hours of instruction, they were more likely to achieve learning gains. The authors found that ABE and ESOL students who received at least 150 hours of instruction had a 75% chance of achieving a learning gain of at least one level.<sup>19</sup> Hours of instruction were also positively related to obtaining a high school credential, and more hours of instruction seemed to offset other characteristics, such as age, ability at the beginning of instruction, and receipt of public assistance, that reduce the likelihood that a participant

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<sup>19</sup>This refers to one grade level equivalent for non-ESOL students, and one SPL for ESOL learners.

will earn a high school credential. In PY02, it took students an average of 129 hours to achieve an educational gain of at least one grade level equivalent or student performance level (MDOE, 2002). The challenge, as Comings et al. (2000) point out, is to keep students in programs long enough to achieve such learning gains and reach their goals. Massachusetts appears to be making progress in this area.

With respect to WIA's core performance measures, in PY01 the state exceeded its targets for 7 of the 10 performance measures for demonstrated improvement in literacy skills. In addition, it surpassed the target of 37% GED (or other high school equivalence certificate) completion with an actual rate of 43%. Rates for placement in postsecondary education or training, and placement or retention in unsubsidized employment, were also well above targets set in the state plan (MDOE, 2001b).

## **KEY ELEMENTS OF ADULT EDUCATION REFORM IN MASSACHUSETTS**

Massachusetts now has an effective system of adult education that provides a wide variety of services for a modest number of students. This system of programs developed through a process of comprehensive reform. Four components of that reform appear to be critical to its success: strong leadership and a sustained advocacy effort, improvements in the quality of services at the expense of quantity, institutionalization of staff and program development, and the involvement of multiple resources to support students.

Strong leadership and sustained advocacy have been the backbone of the reform effort, fostering growth and pushing for continued improvements. The funding growth that persistent advocacy efforts brought about provided the opportunity to improve the quality of services through program and staff development. The variety of provider agencies and support organizations allowed the system to serve a diverse group of learners and their different needs, while competition for funding encouraged the continual strengthening and enrichment of programs.

### **Strong Leadership and Sustained Advocacy Effort**

During the reform period, Massachusetts benefited from the hard work of a leadership group of adult educators who committed decades of their

professional lives to supporting the advancement of the field. In the early 1980s, this leadership group came together in informal meetings to share ideas and strengthen their work. Frustrated by the low profile of adult education in the state Department of Education and recognizing that policy should be informed by experience in the field, this leadership group fought to participate in policy discussions. The group met with the chair of the Ways and Means Committee in the House of Representatives. The chair advised the group that they needed to convince politicians that the people who were served by and worked in the adult education system were a voting constituency and to demonstrate that the services produced positive outcomes. This helped define the future advocacy effort.

When the reauthorization of the Adult Education Act required each state to develop a plan through a process of public review, the leadership group told the Board of Education that they would manage the review. The review was held at the State House and included testimony by students and teachers. It educated the board, which previously knew very little about adult education. After this event, the group's persistent lobbying led to the establishment of a Bureau of Adult Education (which evolved into ACLS). The Bureau director reported directly to the commissioner of education, and a professional with experience in adult education was hired to fill that position.

At the time that Bob Bickerton assumed the position of state director in 1988, annual expenditures for adult education were \$150 per student, and the system was highly fragmented. Bickerton pursued a vision of a strong adult education system and established a local and national reputation for competence and professionalism that garnered further support for the field within the MDOE and the state administration.

Without a simultaneous "bottom up" effort from the field, however, Bickerton's vision could not be realized. Operating outside the MDOE, the leadership group has advocated for the advancement of the field for more than 20 years. Today, these efforts are largely based in the Massachusetts Coalition for Adult Education (MCAE), formed in 1992 through the merger of the Massachusetts Coalition for Adult Literacy and the Massachusetts Association for Adult and Continuing Education. MCAE has a broad membership of more than 1,000 adult educators engaged in instruction, counseling, administration, policy, and research, and it supports the field through both an annual conference (called *Network*) and ongoing activities that provide information for public policy, such as informing the public of impending changes in legislation and funding. The organization benefits from state funding, which provides staff and supports the

conference and other professional development efforts. Membership fees provide support for advocacy work, and volunteers carry out much of the organization's work (MCAE, 2002).

MCAE provides strong leadership in the area of public information as it develops and disseminates information regarding current and emerging adult basic education policies to its members, policymakers, and public officials (MCAE, 2002). Volunteers from its board and membership are influential in advocating for adult basic education services by providing up-to-date information on what is happening in the field and what educators can do to help, such as contacting legislators about urgent issues (MCAE, 2002). Contributing to the strength of the organization is MCAE's pursuit of both ongoing and crisis mode advocacy efforts. Among its regular efforts, the organization has a public policy committee that meets monthly to stay abreast of changes and strategize for the future. Annual activities include invitations to legislators to visit local programs, visits by students and practitioners to the State House, and a postcard campaign in which graduating and wait-listed students contact their legislators to acknowledge or request further support for adult education. MCAE regularly works to instill the idea that advocacy is the work of all educators, students, and other adult education supporters. As state funding can fluctuate, the MCAE leadership feels that the field requires an advocacy system like MCAE's in place to step forward when necessary. Over time, the organization has adapted its tactics in times of crisis, changing from phone trees to e-mail lists, enabling MCAE to mobilize both its membership and the wider field of adult education practitioners and supporters across the state.

MCAE has forged links with groups that are stakeholders in the adult education system, including organized labor, welfare, and immigrant and refugee groups. MCAE also works with the Massachusetts Association of Teachers to Speakers of Other Languages (MATSOL), which voices the sociopolitical and employment concerns of ESOL educators. MATSOL recently joined with MCAE to form the Working Conditions Committee, which focuses its efforts on improving employment and compensation for adult educators and publicly recognizing exemplary employers. MCAE also works with adult learners through the Massachusetts Alliance for Adult Literacy (MassAAL), which involves current and former students in activities that support adult education instruction across the state.

Advocates work in support of adult education at a variety of levels. The ABE Advisory Council advises the Board of Education on policy issues. At the operational level, the ABE Directors' Council (an elected body of program directors) represents ACLS-funded programs and practitioners

regarding policy issues, communication among providers and policymakers, and the development of strategies to improve the status of the profession. Adult education in Massachusetts has also benefited from the support at the state level from many legislators and both Democratic and Republican governors. The House even has a literacy caucus that meets periodically to stay abreast of current issues in the field.

The hard work of committed advocates over the last two decades has helped increase and sustain funding to support the effective implementation of adult education programs. The effectiveness of this effort was evidenced in November 2001, when the PY02 budget included a nearly 50% cut to adult education, a change that would have meant closing nearly all publicly funded programs by February 2002. Immediately, MCAE and its fellow advocacy groups rose to the occasion. Between Thanksgiving and Christmas, the field launched a campaign that included hundreds of student visits to the State House; thousands of phone calls, letters, and faxes to legislators from students and practitioners; and a media blitz of more than 150 articles, letters to the editor, editorials, and news clips on radio and TV. This effort was supported by classroom materials, which explained to students that, as members of a democracy, they had the right and responsibility to advocate for the services they needed. As a result of these efforts, all but 2% of the adult education budget was restored, and legislators congratulated MCAE and its colleagues for the best organized advocacy efforts they had ever seen (Rosen, 2002).

In addition to the sustained efforts of organizations that advocate for adult education, the growth of the field has been supported by several reports that served as outside evaluations of the field and identified strengths and key areas for improvement. In 1967, the Massachusetts Adult Education Planning Project surveyed adult education, highlighting the fragmentation in services and recommending improvements. The 1995 *Grossman Report* documented the need for expanded adult education services and recommended a 5-year plan that included annual funding increases of \$7 million. In 2000, MassINC released *New Skills for a New Economy: Adult Education's Key Role in Sustaining Economic Growth and Expanding Opportunity* (Comings et al., 2000). The report identified the challenge to the state's economic growth posed by an undereducated workforce and focused on the important role of adult education in supporting economic growth. The report used data from MDOE to provide information on the current system's effectiveness and make recommendations for system improvements. Rather than resisting these external reports on the adult education system, ACLS and MCAE have embraced them as



opportunities to draw attention to adult education and its importance as an additional element of the state's educational system. Given its bipartisan nature and reputation for accuracy in research, MassINC has proved to be an important ally by raising the visibility of adult education as an issue and also validating the work of the field, building partnerships, and garnering the interest of influential leaders in the state.

Although advocacy for adult education in Massachusetts has been quite successful, a number of challenges to success persist. When state income decreases, the adult education budget will always be in jeopardy. To be ready for these times, the adult education system needs a strong sustained community of advocates. The combination of paid staff and volunteers has been essential to advocacy success. The field faces the challenge of building a new generation of activists as committed to advancing the field of adult education as those who have fought these battles for several decades. Such continuity will be vital not only to advocacy efforts, but also to the continued improvement of the system overall.

### **Improving Service Quality**

A key decision adult education leaders made at the beginning of the reform effort was to change the system's goal from trying to serve as many students as possible with the funds available to serving only the number of students who could receive high-quality services with the available funds. In PY91, the system purported to serve 40,000 students; however, many received as few as 12 hours per year. Rather than waiting for additional funding to become available, the adult education leadership committed to improving quality by cutting the number of students served with the existing budget. ACLS cut the 40,000 students by two thirds, to 12,000. This meant that new funding would be put into program and staff development, and only once quality began to improve would the number of students served begin to increase. As an important step toward improving the quality of services, Massachusetts began a significant effort to define quality and measure it.

**Defining Quality.** In seeking to define good quality programs, ACLS has worked to gather input from the field to help shape its policies and prescriptions. The effort to define quality services is focused both on process and outcomes. The goal of this effort is to ensure that programs operate in a way that provides students with a real opportunity to learn and that students are, in fact, benefiting from those services.



In an effort to define good quality programs, the ACLS articulated a uniform set of guidelines for programs it will fund. *Principles for Effective Literacy and Basic Skills Programs* (Massachusetts Interagency Literacy Group, 1990) emerged from the recommendations of practitioner task forces in the late 1980s and has been regularly updated with field input. The guidelines followed the goal of increasing resources for each student and put it into a set of limits on how many students programs could serve with the funding they were provided. In addition, they established a floor under which program quality would be judged insufficient.

The guidelines cover the areas of student services (including instructional hours and class size), counseling requirements, program and staff development (including requirements for paid time for staff and program development, orientation for new staff, and creation of community partnerships), and administration (including requirements for matching funds, minimum coordination time, fiscal procedures, and minimum recommended salary rates). The guidelines include requirements, such as minimum contact hours, as well as suggestions for additional elements or policies to strengthen services, such as provision of child care and transportation to students.

***Monitoring Quality and Measuring Outcomes.*** As part of its efforts to maintain and foster quality services, ACLS monitors both processes and outcomes. Once during each program's 5-year grant, ACLS conducts a program review. Program reviews cover quantitative outcome data but also include a formal 2- to 5-day monitoring visit, during which ACLS staff observe classes and interview staff, students, administrators, and advisory councils. Reviewers employ a checklist of indicators of program quality developed from the guidelines.<sup>20</sup> The monitoring visits are intended to assist program planning for continuous improvement, support the development of new initiatives, provide assistance to programs with compliance or performance issues, and facilitate the sharing of best practices among programs (MDOE, 2001b).

Once a program has been funded, it must demonstrate satisfactory performance for student participation, student goal achievement, and educational gains. Programs that achieve less than one standard deviation below

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<sup>20</sup> The indicators of program quality for the monitoring process are as follows: student educational progress; family, career, and community impact; professional development; program planning; program management and accountability; data collection and evaluation; instructional support services; curriculum development and implementation; instructional methods; and community linkages.

the statewide average for these indicators are placed on probation. As ACLS also wants to acknowledge program success, it is currently developing a system through which a program's past success is factored into subsequent applications for funding. Details of this system are still developing, but ACLS is committed to formally recognizing the effectiveness of its programs by including performance data in the scoring of funding proposals. In the next round of grant applications, programs that have a record of 5 years of strong performance will not be required to complete the usual lengthy proposal; instead, a record of performance will serve as their application.

Early in the reform effort, the adult education leadership in the state decided that it had to do a better job of measuring the impact and outcomes of its services to garner additional support. This effort began with planning for the 5-year state plan, *Building Effective Adult Basic Education*, in 1990. Under this plan, ACLS initiated a multi-year process to develop more precise definitions of educational attainment levels, which were not necessarily keyed to K–12 grade levels, for ABE and ESOL. These levels would have criteria for entry and exit of a level, along with measures to assess progress. As the pressure to measure results grew, ACLS leadership decided it had to identify uniform measures of progress. As a result, ACLS returned to grade levels for ABE and ASE students and the 10 student performance levels (SPLs) from the Basic English Skills Test (BEST) for ESOL students.

In addition to this preliminary work, *Building Effective Adult Basic Education* also explicitly called for a field-based process to design an accountability system. In 1992, the ACLS launched the Massachusetts GOALS (Greater Opportunities for Adult Learner Success) project. The GOALS project was designed to explore, with learners, practitioners, and policy-makers, issues of accountability and measurement of results to determine the components of a comprehensive adult education accountability system. The project's primary components involved interviewing 250 learners<sup>21</sup> about their reasons for attending programs and reviewing existing data collection in programs. This project helped ACLS begin articulating learning goals to supplement the grade and SPL levels, as the latter provided only a rough estimate of meaningful progress. These goals were then incorporated into the ACLS management information system.

The effort to develop measures of student achievement made clear that the state's information system was inadequate. In 1996, Massachusetts

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<sup>21</sup> Half were ESOL learners who were interviewed in 15 different languages.

established the System for Managing Accountability and Results Through Technology (SMARTT) in an effort to improve data collection and management. Since 1998, SMARTT has been a Web-based application that programs can access from their sites. Programs use the system to enter and update their records but can also use it for program planning and management (for example, enrollment and waiting list management). Although student goals remain a centerpiece of the system, SMARTT has three principal components: student profiles, detailed service profiles, and information on staffing and funding so that each dollar is linked to each student in a class. SMARTT consists of a relational database that contains information at the agency, program, and class levels and includes data pertaining to staff (including background, compensation, employment, and teaching hours) and students (including demographics, assessment information, goals, attendance, and progress).

Through SMARTT, ACLS intended to provide local directors and regional and state funders and policymakers with a tool to better describe, analyze, plan, manage, evaluate, and improve adult education services in the Commonwealth. In addition, researchers would be able to conduct secondary analyses of program data, and state officials and legislators would be able to examine SMARTT data for accountability purposes.

Implementing SMARTT has proved challenging both technologically and in terms of program satisfaction with the system. For the first several years, programs found the system difficult to use and extremely time consuming. ACLS listened to the programs' complaints and suggestions and invested in improvements. Major technical issues have been resolved, and new software enables programs to make queries for their own purposes. Through the System for Adult Basic Education Support (SABES), ACLS also provides numerous training opportunities for system users, focusing on making use of SMARTT data. Programs are just beginning to make use of the SMARTT data for their own purposes. In some cases, the system does not yet produce all the information (e.g., longitudinal data) that program directors would like. Program planning based on data is new to many program directors but may well become more common in years to come as the system responds to their data needs.

SMARTT generates a unique identifier for each student to eliminate double counting, but in 2002, ACLS began requesting Social Security numbers from participants on a voluntary basis. Social Security numbers can be matched to data on earnings and employment status so that the impact of participation after completion can be measured. ACLS has worked with several workforce development agencies to establish

performance standards in response to WIA. These efforts include matching data across adult education (including GED information systems) and workforce systems, which cannot be accomplished without Social Security numbers. Many practitioners oppose gathering Social Security numbers, viewing the collection of such information as an invasion of privacy unrelated to the acquisition of basic skills. They fear that such data gathering may inhibit some adults from attending programs.

The NRS has raised further concerns about monitoring program outcomes. ACLS established the Performance Accountability Working Group (PAWG) to “refine measures and develop program specific benchmarks, and performance levels related to student participation, student learning gains and achievement of student-defined goals” (MDOE, 2001b). Made up of teachers and directors of adult education programs, MDOE staff, and representatives from the workforce development system, the PAWG has reviewed the assessment procedures used by programs around the state and issued recommendations for documenting student progress in order to respond to national reporting requirements and the state’s need for additional student performance data. The PAWG has recommended that the state use the TABE (Test of Adult Basic Education), the BEST, and the REEP<sup>22</sup> until it has had time to develop a statewide assessment system that is aligned with the adult education curriculum frameworks.

***Challenges to Improving Quality.*** Strengthening the adult education system in Massachusetts has put a strain on programs. Although most program directors favor improving services, the resulting demands placed on programs and the pace of change have been stressful for all programs and overwhelming for some. For programs that were already strong when serious reform was undertaken, the demands of higher quality standards were less of a burden but still presented a significant demand on staff time. For other programs, however, adapting to a strengthened system has been more challenging. This has been particularly true for smaller programs, especially those headed by part-time directors. The competitive ACLS grant process has led to closure of weaker programs. In fact, funding was discontinued to 20% of previously funded programs in the competitive grant process over the last 15 years (MDOE, 2001a).

Although procedures that weed out weaker programs may lead to improved services, they also make new programs’ entry into the system

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<sup>22</sup> Arlington Education and Employment Program; this is a writing assessment tool for ESOL students, developed in Arlington, Virginia, public schools.

more difficult. Some of the non-ACLS funding carries less rigorous program standards that help new programs serving groups or areas that are underserved. The City of Boston is one source of this funding, with a \$4 million program of English for New Bostonians. This program draws on city and private-sector funding. The Boston Adult Literacy Fund, established more than a decade ago, also raises private funds and provides support for programs outside the ACLS system.

In its vigorous pursuit of quality services for adult learners, ACLS has launched numerous initiatives in recent years. Although the department has made an effort to fund its mandates, allocations may not be sufficient to support actual work requirements. Programs, often understaffed, lack the personnel required to focus on simultaneously implementing several ACLS initiatives. Moreover, some requirements, such as assessment, may pose serious logistical challenges. At one point, ACLS was pursuing 17 strategic initiatives at once, and the field reacted strongly. Over time, ACLS has recognized the advantages of pursuing a more limited set of initiatives accompanied by the support programs needed to carry them out. Today, only seven strategic initiatives are in operation: curriculum frameworks and assessment, community planning, teacher licensure, organizational development, technology, workforce development, and family literacy. In interviews, adult educators say that they have been challenged by the system's development but stress that they retain an appreciation for its strength and ability to withstand external threats, such as those encountered during recent state budget negotiations.

The move to 5-year grants and likely refunding for programs that record consistent success has alleviated some of the stress brought on by competition. Five-year cycles allow for planning based on a reasonable expectation of funding over several years. Although ACLS efforts have led to a more stable system, the entire enterprise is still funded using annual appropriations that could disappear with a single vote of the legislature.

In interviews, practitioners indicated that the competitive grant process contributes to the perception of a fragile system characterized by an environment of uncertainty; however, once a program is identified as successful, the fragility is more likely to be a result of the uncertainty of the overall level of state funding. In this environment, programs may not commit to long-term investments in technology or infrastructure, and staff may not commit to a career in adult education. This lack of commitment makes building and sustaining high-quality programs more difficult.

Teachers and staff know that funding could end at any time, and as their agency's funding comes up for renewal, that uncertainty increases. Indeed,

the state budget process of the last two years has demonstrated that adult education funding remains insecure. As a result, adult educators are often drawn to jobs that offer better salaries and benefits in the K–12 system or elsewhere, contributing to the high turnover among the teaching and administrative staff of adult education programs. In addition, this instability creates challenges to finding and maintaining space to accommodate programs, as programs risk committing to leases and subsequently losing funding. The present situation is much stronger than it was 15 years ago, but it is still not as stable as the K–12 and higher education systems.

### **Institutionalization of Program and Staff Development**

At the same time that ACLS sought to improve the quality of adult education programs, its leadership understood that programs and practitioners needed access to services that would help them increase their ability to meet the new quality standards. In 1990, ACLS (then the Bureau of Adult Education) established SABES to strengthen the quality of adult education in the Commonwealth through a network of training and technical assistance agencies. (Note: The section that follows draws heavily from a World Education [1997] case study.)

Launched one year before adult education reforms were implemented, SABES was seen as a key element in the state's effort to strengthen services and forge them into a comprehensive and effective system. SABES was designed to provide program and staff development services, establish a clearinghouse of useful materials and sources of information, and initiate a program of research and development. Funding for the project came from combined federal and state resources. In its 13 years of operation, SABES has built a comprehensive system of program and staff development and a clearinghouse that provides information to practitioners. Research proved to be a low priority among practitioners, but the development component of the SABES mission has continued and today includes activities in the areas of teacher licensure, technology, and assessment.

SABES is comprised of five Regional Support Centers (RSC) based in four community colleges and the University of Massachusetts, as well as a Central Resource Center (CRC), located at World Education, a Boston-based nonprofit agency. The CRC is responsible for providing overall coordination and leadership in staff and program development and manages ACLS-supported development activities. In addition, it houses the SABES clearinghouse, which coordinates with regional clearinghouses at the RSCs, including the largest library of adult education materials in

New England at Boston's Adult Literacy Resource Institute. The CRC also manages the SABES Web site,<sup>23</sup> which provides a statewide training calendar and full-text, field-generated resources.

Each RSC is managed by a regional coordinator or director. Each RSC appraises training and technical assistance needs, develops programs to respond to those needs, provides information on SABES, promotes the development of leadership skills of people in the field, and facilitates relationships among programs, teachers, and administrators. In addition to identifying local needs, each RSC administers small grants that support practitioner research and publication projects. Each RSC is also responsible for initiating regional activities and implementing statewide projects in their region. A full range of resources for instruction, training, and program development is available to practitioners at each RSC.

With an annual budget of close to \$2.9 million, SABES represents a significant investment in program and staff development on the part of ACLS.<sup>24</sup> SABES has 45 full- and part-time staff based in Boston and around the state. SABES is a comprehensive system that offers a range of services and uses a variety of approaches across a full array of programs, practitioner types, and content areas as it seeks to meet a range of practitioner needs. In PY02, SABES provided 22,231 participant hours<sup>25</sup> of activities.<sup>26</sup>

Early in its work, SABES staff found that improvements in adult education services required a coordinated effort at the practitioner and program levels. Programs need to address both organizational and individual needs simultaneously. SABES staff found that when teachers acquired a new skill, they were much more likely to employ it in class if their program had changed to accommodate this new activity. SABES staff, therefore, made

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<sup>23</sup><http://www.sabes.org>

<sup>24</sup>*Guidelines for Effective Adult Basic Education* stipulates that "there must be support (paid hours) for staff to engage in meaningful staff development activities at not less than 2.5% of each staff person's total paid hours, or a minimum of 12 hours per employee per year, whichever is greater." In addition, programs "must provide support (paid hours) for staff to engage in meaningful Program Development activities. DOE requires an allocation of at least 3.5% of total paid staff hours" for this. Accessed November 14, 2002, from <http://www.doe.mass.edu/acls/wiatitleii/abeguide.pdf>

<sup>25</sup>This figure refers to activities centered on teachers and counselors in "The Basics" (see p. 114) and working with adults with learning disabilities. It does not include additional work with directors and coordinators, or additional activities undertaken by SABES (work on licensure, community planning, technology, publications production, and management of a literacy hotline).

<sup>26</sup>From interview/e-mail with SABES director Mina Reddy, November 5, 2002.



a deliberate decision to connect program and staff development. The dual approach has worked well with some programs, but SABES is continuing to explore the most effective means of simultaneously addressing the two areas of staff and program development.

In its role as a statewide organization, SABES must balance the need to address both regional concerns and statewide initiatives. SABES remains a federation of six independent organizations. To build cooperation, regional and central staff met weekly for the first 2 years to maintain a unified direction and build an organizational culture. With this type of regional organizational structure, it was essential for staff to have such opportunities to meet face-to-face regularly. After the first two years, the time between meetings was increased, but a commitment to strong communication and a shared sense of purpose and culture remains. In addition, an advisory committee meets three times a year and represents the five state regions and all the different types of programs served by SABES. The committee ensures that practitioners have input into critical decisions made by SABES.

While paying attention to statewide and regional concerns, SABES must also balance the needs of practitioners with those of ACLS. It does this through two types of activities. The first is "strategic objectives," which relate to statewide concerns and implementation of ACLS policies, including curriculum and assessment of student learning, professional standards, technology, organizational development, community planning, the implementation of the GED 2002, and transitional education. Second, SABES focuses a significant proportion of its resources on what it calls "The Basics," generic activities intended to increase program and practitioner effectiveness in teaching, assessment, counseling, and other support services. Through "The Basics," SABES directly addresses practitioner needs.

In addition to SABES, a number of other organizations provide support to the work of adult educators. MCAE organizes an annual conference, *Network*, that provides an opportunity for sharing among practitioners across the state, as well as a forum for presenting and discussing research and policy developments in adult basic education. MATSOL offers an annual conference and other smaller forums for exchanges among ESOL educators working with learners of all ages.

Teachers are the most important resource in a program. Although SABES provides opportunities for professional development, it does not certify that teachers have the skills and knowledge they need to be effec-



tive. The issue of adult education certification has been debated in the field for more than two decades.<sup>27</sup> Despite disagreements in the field about the skills required of adult educators and the value of a credential, ACLS embarked on a process of soliciting input from the field to shape certification in the Commonwealth in 1994. In 1998, legislation dictated that ACLS and the teacher certification office of the MDOE should initiate a voluntary certification program. In coordination with SABES, ACLS worked with the field to create a model for a voluntary professional license for adult education teachers. This process involved repeated gathering of feedback from practitioners and professional development organizations, as well as the efforts of an advisory committee and working group.

Accepted by the state in 2001, the license is valid for five years and renewable every five years after that. Professional standards of the license are comprised of a full range of skills including understanding the adult learner, instructional design, and teaching approaches; facilitating the adult learning environment; learner assessment and evaluation; diversity and equity; and professionalism. Four different routes to licensure are available to accommodate both novice and experienced adult educators, including individuals who already possess a pre-K–12 license.<sup>28</sup> In conjunction with ACLS, SABES developed and now offers a series of courses to address specific areas covered by the license. MDOE began issuing adult education licenses to qualified, experienced educators in the fall of 2002. The license requires a substantive effort on the part of candidates who seek it, and the actual benefits (e.g., salary increases, job opportunities, and security) that will result from possession of the credential remain to be seen. Nonetheless, the license represents a major step forward in professionalization of the adult education field in Massachusetts.

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<sup>27</sup> For a discussion of certification efforts in Massachusetts and elsewhere, see “Professionalization and Certification for Teachers in Adult Basic Education” by Sabatini, Ginsburg, and Russell (2002). *The Annual Review of Adult Learning and Literacy*, Vol. 3, pp. 203–247.

<sup>28</sup> The four routes to licensure are as follows: (a) for candidates with less than five years (2,400 hours) of documented ABE experience and who do not have a teacher license; (b) for prospective ABE teachers or novice teachers who hold a teacher license but have less than one year of documented ABE experience; (c) for candidates with one year or the equivalent (480 hours) of documented ABE experience and who hold a teacher license; (d) for candidates with five or more years (2,400 hours) of documented ABE teaching experience. (Accessed November 15, 2002, from <http://www.doe.mass.edu/lawsregs/603cmr47/47.06.html>) For more information on the ABE license, visit <http://www.doe.mass.edu/acls/abecert>

## Multiple Resources to Support Students

ACLS has made a commitment to involve many different types of provider agencies and to help students connect with the services they need to participate and be successful in a program.

***Provider Agencies.*** Unlike many states, where adult education services are largely offered under the auspices of a single provider, Massachusetts supports a variety of institutions. The state's multiple provider system allows the strengths of various organizations to be drawn on in meeting adult learner needs. For instance, some adults may prefer the academic environment of a community college and others may prefer the more informal atmosphere of a CBO. Although an academic institution may have more resources to support learning, a CBO may have a stronger connection to the community that supports recruitment and retention.

The development of this system of multiple providers has been driven over time by a combination of funding opportunities and a commitment to serving adult learners. During the 1970s, CBOs, well acquainted with the needs of local populations, offered services that were supported by direct federal funding through programs such as Model Cities and CETA (and its preceding forms). In 1983, Boston used \$1 million of federal community development block grant (CDBG) funds to support and strengthen 16 CBOs and a resource center, the Adult Literacy Resource Institute. The city's current Adult Literacy Initiative still supports the original 16 programs and has been expanded to include all ACLS-funded programs in the Boston area. When state funding for adult education became available in the 1980s, CBOs were encouraged to apply for state support. The program and staff development services ACLS put in place allowed these CBOs to continue improving so that they could meet the challenge of competition with much better-funded academic institutions.

***Connecting Students to Services.*** ACLS leadership is aware that most students have barriers to participation in programs. These barriers include the need for child care, transportation, counseling, health care, housing, employment, and emotional support. To address these needs, ACLS has required its programs to offer student support services since 1990. This requirement led to a number of activities meant to develop the right mix of services.

In 1991, a statewide practitioner task force developed a counseling resource guide to improve staff development services for adult education counselors. More development work in the area of student support ser-

vices took place over the next three years, including staff training, sharing groups, and materials development based on the information in the counseling resource guide. In 1994, a study group report emphasized the critical need for support services that strengthen students' motivation and self-confidence and that help them avoid feelings of isolation and alienation. These recommendations led to the mandate that 2.5% of the total student instructional hours must be devoted to providing paid student support services. The study group report made clear that a counselor is a necessary part of every program but cannot manage all student problems. The report states that students who have serious problems such as alcoholism, drug abuse, mental illness, eating disorders, intense domestic problems, physical or emotional crises, custody issues, and sexuality concerns would be better served by an appropriate social service or mental health agency.

The report recommended that programs look into community collaborations as a source of direct student support services, rather than providing those services themselves. In response to the report's findings, ACLS began asking programs to direct greater attention to community partnerships as a way to strengthen support services in 1997. This community planning process is an attempt by ACLS to connect adult education agencies to the many services their students may need. It asks each service agency to work with the community it serves to form a network that will provide those support services. This kind of community collaboration among agencies serving the same population is essential not only to improving adult education, but also to improving the provision of all social services. In addition, the process supports programs examining their communities to be sure their work addresses current needs. The community planning process makes adult education services into something that local businesses and other stakeholders see as serving their needs, thereby building support for the field.

The goal of the Massachusetts ABE Community Planning Initiative is to place adult education into a comprehensive network of services that help adults succeed as workers, family members, and citizens. The objectives of the initiative are described as:

- The needs of all undereducated and limited English proficient constituencies are accounted for, and strategic plans are developed to identify how and when every such constituency will ultimately be served.
- Every organization with an interest in and the potential for supporting services to these populations is included in such planning, and protocols are established to coordinate these services.

- Students benefit from the broadest possible array of educational, employment and training, and health and human services available, which so many adults need in order to successfully pursue their goals and aspirations.
- Adult education takes its place as a key ingredient in each organization's, community's, and region's plan to improve the quality of life for its citizenry. (MDOE, 2001b)

After successful piloting in more than 40 communities, the community planning process became a universal requirement for 5-year ACLS grants in 2001. In the first year, programs are expected to forge partnerships in their communities with agencies that serve adult education populations. During the second and third years, programs conduct a comprehensive needs and assets assessment of their community. During the fourth and fifth years, programs must submit strategic 5-year plans for meeting local adult education needs. The first such plans will be submitted in 2004.

Many if not most students who come to ACLS programs are looking to enter or reenter the workforce or improve their income. A connection to employment services, therefore, is an important part of student support. For several years, ACLS has worked toward a close collaboration with the state's workforce development system. Since 2000, ACLS has been a key partner in the Workforce Investment Act Steering Committee convened under the auspices of the Massachusetts Department of Labor and Workforce Development. Through this involvement, ACLS representatives participated in various subcommittees to develop the WIA State Plan, including the areas of youth services, one-stop career centers, performance accountability, and individual training accounts (MDOE, 2001b). In addition, the ACLS director chaired the WIA Vision Subcommittee charged with crafting the overall philosophy and guiding principles of the Massachusetts WIA state plan (MDOE, 2001b). ACLS representatives met with staff from state and regional workforce investment boards, representatives of the Commonwealth Corporation (previously the WIA Title I agency), the Division of Employment and Training, the Division of Transitional Assistance (the agency that implements the Temporary Assistance for Needy Families [TANF] program), and other stakeholders to develop a comprehensive integrated system to deliver adult basic education and training services throughout the Commonwealth. As a result of these meetings, the MDOE made significant strides in integrating the ABE activities funded under Title II with other adult education and workforce development programs throughout the state during PY01.

Evidence of this integration takes a variety of forms, including specific agreements, representation across agencies, and joint endeavors. For instance, ACLS has entered into agreements with the state's 16 local workforce investment boards to distribute funds and identify overlap in the provision of intake, initial assessment, and referral services to undereducated and limited English proficient adults. In addition, adult education providers and one-stop career centers across the state have established working relationships. ACLS recently joined workforce agencies in developing a state system of performance measures that pertain to impact on employment, business and skill-building, and customer satisfaction (among workers and businesses).<sup>29</sup>

Opportunities for the adult education and workforce development sectors to be aware of each other's interests are fostered by instances of cross-agency participation. For example, representatives from ACLS-funded programs serve on local workforce investment boards to ensure the inclusion of adult education issues in discussions and activities of local workforce development communities. Representatives of local workforce investment boards attend the annual adult education program directors' meeting, and ACLS staff attends monthly meetings of the Workforce Investment Board Association. Information developed by the ACLS is shared with executive directors of the local workforce investment boards and disseminated among workforce development agencies.

Integration of adult education with other sectors also takes the form of collaborative projects. The Building Essential Skills through Training initiative is a state-funded strategy to coordinate incumbent worker training that emphasizes adult basic education. The initiative involves the collaboration of MDOE, the Division of Employment and Training, the Department of Transitional Assistance, the Department of Labor and Workforce Development, and the Commonwealth Corporation (MDOE, 2001b). Another initiative is the Massachusetts Family Literacy Coalition, which includes 14 state agencies and six statewide organizations that are concerned with education and social support to families (MDOE, 2001b). In the mid-1990s, ACLS worked with the state's Office for Refugees and Immigrants to develop a citizenship and civic education curriculum, and with the Department of Public Health (and local health care providers) to develop and implement the ABE health education initiative.

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<sup>29</sup>These measures are outlined in a memo to the State Workforce Investment Board from the Performance Measurement Committee, dated September 5, 2002. This committee grew out of the Governor's Task Force to Reform Adult Education and Worker Training, formed in 2001.

ACLS-supported programs cannot provide their students with everything needed to succeed as workers, family members, and citizens, but they can connect students to community agencies that provide those services. These services have the added benefit of providing students with support that makes participation in educational programs possible.

## **LESSONS FOR OTHER STATES**

The reform movement in Massachusetts started with a small base of support for addressing the issue of adult education. This support had existed for more than a century, but a real system for adult learning was not possible until the field began to build an advocacy effort and focus on improving program quality. These elements have been an essential part of the reform process in Massachusetts. The Massachusetts experience offers valuable lessons to other state adult education programs that seek expanded funding and improvement. The ways in which states go about this process might differ, depending on size, population, and other state-specific factors; however, these issues will remain key in bringing about reform.

### **Lesson 1: Reform Requires Long-Term Leadership and Advocacy**

Long-term leadership from the field and within the state adult education agency is essential to accomplishing the task of reform. The reform movement in Massachusetts has been successful in part because a group of professionals in the field, both inside and outside the government, committed 15 to 20 years of their working lives to this task. They saw the need for advocacy and built a network of students and practitioners who kept up this effort and were also available when emergencies threatened program gains. Gains were a result of pushing the legislature in an organized and well-planned effort.

State leaders need to have an understanding of the realities of adult education, as well as the ability to negotiate with bureaucratic institutions and build a network of support for the field. They must develop a vision for adult education and mobilize the energy needed to realize it. In addition, state leaders must cultivate leadership at other levels, including educators and students, so that everyone is working to improve the system.

Realization of a vision for adult education requires advocates at a variety of levels, including students and legislators. Massachusetts built strong advocacy efforts through a mix of paid staff and volunteer efforts. Only a

broad base can support a system as it moves forward in strengthening and expanding services over many years.

### **Lesson 2: The Pursuit of Quality Over Quantity Is Necessary to Strengthen a System**

An adult education system must commit to providing high-quality services, even if this means serving fewer students. This process should include clear goals, a capacity to monitor progress, and incentives for improved performance. Developing quality standards should be viewed as a continuing process that draws on input from the field and takes into account changing demands both within and beyond state borders. The leadership in Massachusetts built its own vision for adult education while paying attention to the vision developing at the federal level. This allowed them to meet their own goals at the same time they prepared for the coming of WIA.

As part of its pursuit of quality, the leadership in Massachusetts welcomed outside evaluations of their services, knowing that these reports would identify weaknesses. These reports brought attention to the adult education system and supported the system's focus on improving quality. Moreover, these evaluations always led to additional political support.

### **Lesson 3: The Implementation of Standards Requires Support**

Improvement in services does not come from changes in administrative and management procedures alone. Prior to implementing major reform initiatives, Massachusetts put in place a permanent capacity to provide program and staff development services to help meet new standards. This capacity continues to respond to both state- and field-identified needs. Of course, Massachusetts embarked on its reform during a period of relative freedom, prior to WIA implementation. Other states initiating reform in the current climate may face limitations in what they can achieve. However, WIA is meant to support reform that leads to improved quality, and states should request the latitude to experiment or seek additional state funds to support their own vision of reform.

### **Lesson 4: Multiple Resources Are Needed to Support Adult Learning**

Meeting adult learner needs is a complicated task that requires multiple resources. Massachusetts has benefited from a range of service providers



all working with a common set of standards. The system makes available a full range of services to accommodate different learner requirements.

The complexity of adult learners' lives and goals necessitates an approach that draws on resources outside the adult education community. An adult education system can serve its students better when it is integrated into a network of services and institutions. Massachusetts requires programs to develop networks with local services and institutions that their students need. Although supporting learner progress, this effort has the added benefit of building support for adult education among these different institutions and the agencies that fund the other services.

### **Lesson 5: Change Takes Time**

Programs need time to reach agreement on goals, refine them, and successfully meet them. Implementing too many new initiatives at one time can lengthen the reform process. Adult educators from other states should keep in mind that this case study is a short summary of the work of hundreds of people over almost two decades. The growth in funding from \$7 million to \$45 million in 15 years required a lot of work, all of which was necessary to achieve the goal of establishing an effective adult education system in Massachusetts. Those reading this case study for inspiration should prepare themselves for a long and challenging task.

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# 5

## Volunteers in Adult Literacy Education

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Jennifer A. Sandlin  
Ralf St. Clair

### INTRODUCTION

This chapter discusses the use of volunteers in adult literacy education programs, examines several current controversies, and lays out possible implications of those controversies. Volunteers have played an essential role in adult literacy education for decades (Belzer, 2002; Tenenbaum & Strang, 1992; U.S. Department of Education, 2000), yet in some ways they remain silent partners in the delivery of adult literacy, numeracy, English for speakers of other languages (ESOL), and other basic education provision. Throughout our discussion, we use the term *adult literacy education* because the majority of the research examines work with learners striving to improve limited literacy proficiency.<sup>1</sup>

Given the long relationship between volunteers and adult literacy education, there is surprisingly little systematic research and writing on the

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<sup>1</sup>Although we do not specifically address ESOL provision, the use of volunteers in ESOL provision is similar.

topic (Hambly, 1998; Ilsley, 1985; Stauffer, 1974). Although training manuals for volunteer tutors and program administrators abound, making up approximately three quarters of the literature on literacy volunteerism, relatively little research has been conducted on such issues as the effectiveness of volunteers, the educational practices of volunteers within programs, and comparison of models of volunteer training (Belzer, 2002; Ilsley, 1985; Tenenbaum & Strang, 1992). The research addressing these issues comes primarily from the 1970s and 1980s, when, judging from the numbers of publications about volunteers in adult literacy, there was considerable interest in the topic of volunteerism (Hambly, 1998). Some research and writing on volunteerism in adult literacy was also published in the 1990s, which may be evidence of renewed interest in this topic. Although there have been a handful of attempts to synthesize the literature (Freer, 1993; Ilsley, 1985; Imel, 1986a, 1986b; Tenenbaum & Strang, 1992), much of it is now almost two decades old.

In this chapter, we supplement the research with other forms of data, including National Literacy Advocacy (NLA) listserv discussions, roundtable discussions, and e-mail and telephone conversations with state adult literacy directors. Because of the gaps in research literature, we also rely on our experience and anecdotal evidence, but we have clearly identified these instances. We begin by examining where volunteers work, before moving on to the volunteer's perspective and controversies in adult literacy volunteerism. Our final section deals with the implications of our discussion for research, policy, and practice.

## **LOCATING VOLUNTEERS IN FEDERAL AND VOLUNTARY LITERACY PROVISION**

Volunteers have been active for several decades in federally funded adult literacy programs and in the two major volunteer literacy organizations, Laubach Literacy International (Laubach) and Literacy Volunteers of America (LVA), now merged as ProLiteracy International.<sup>2</sup> Briefly examining the history of volunteers in providing adult literacy education helps to understand the current situation.

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<sup>2</sup>This merger went into effect on October 1, 2002. As this chapter contains information from periods prior to the merger, we refer to Laubach and LVA independently.

### **Federally Funded Adult Literacy Programs**

Federal legislation began to fund adult literacy education in earnest with the Adult Basic Education Act in 1964–1965. The aim of this act was to help people over the age of 18 attain the numeracy and literacy skills required to become employable and participate fully in society (Kangisser, 1985). States administered the funds and distributed them to educational organizations and community-based groups providing literacy education for adults. Volunteers came to play a more substantial role in providing federally funded adult education and literacy services when Laubach and LVA took on service provision in many states during the 1970s. Where other adult basic education (ABE) programs exist, Laubach and LVA refer their more advanced students to them, and ABE programs refer beginning learners (typically 0–4 grade level equivalent) to the voluntary organizations.

Specific federal volunteer initiatives, such as Volunteers in Service to America (VISTA), have also created opportunities for literacy volunteers. The most recent of these programs is AmeriCorps. When introduced in January 1994, the national initiative did not mention literacy as an area of service. The National Coalition for Literacy (a group of organizations committed to raising the profile of adult literacy in the United States) asked the Clinton administration to include literacy and was successful in this effort. In the first funding round, 2 of 47 recipients of direct national grants were literacy organizations (the National Institute for Literacy and the National Center for Family Literacy), as were 35 of the 248 state-level recipients. This represented a commitment of 1,610 volunteers and around \$15 million to adult literacy (Business Publishers, Inc., 1994).

By 2000, volunteers comprised approximately 43% of all adult education personnel reported by state-administered adult education programs (U.S. Department of Education, 2000). In that year, the states reporting the highest percentage of volunteers among total personnel were Pennsylvania (90%), Vermont (83%), Wyoming (79%), Rhode Island (77%), Nebraska (74%), Alaska (71%), and Virginia (71%). The District of Columbia also reported a high percentage (79%) of volunteers. Those states with the fewest reported percentages of volunteers in state-administered programs included Connecticut (0%), Delaware (0%), Texas (2%), Oklahoma (3%), Hawaii (10%), and Kentucky (10%). To attempt to explain these widely varied figures, we talked to several state directors of adult literacy programs. The percentage of volunteers does not appear to be correlated with

either geographical location or amount of funding per student. Directors in states with high reported percentages of volunteers stated that their staff had cultivated strong relationships with volunteer literacy organizations, especially Laubach and LVA. As a result, state funds are distributed to voluntary organizations, and the organizations' tutors are reflected in the official state personnel counts. Vermont, for example, has a long history of collaboration between state-administered programs and LVA, resulting in shared tutor-training responsibilities. Vermont has a strong commitment to using volunteers in a variety of roles, including tutoring, administration, recruitment, and board membership. A similar commitment is found in Alaska and Wyoming, where LVA and Laubach programs have received state funding since the late 1970s. In addition, "several of the regional Alaskan ABE [adult basic education] programs depend on VISTA and AmeriCorps members to staff their programs" (personal communication, Alaska state director). Pennsylvania is also committed to funding volunteer programs, with Pennsylvania's state legislature earmarking 20% of adult literacy funding for volunteer activities. This legislation helps encourage volunteerism within the state, and the volunteers supported with state money are included in official counts of state personnel. We did not receive any information from directors of states with the lowest numbers of volunteers.

Overall, volunteers have played an important role in federally funded programs, much to the advantage of those programs and local service providers.

## **Volunteer Literacy Organizations**

Frank Laubach founded the Laubach Literacy and Mission Fund in 1955, having been involved in literacy work since the late 1920s (Kangisser, 1985). His background was in Christian missionary work, and his first attempt at developing a method of teaching adults to read took place in the Philippines. Laubach employed a way to systematize letter-sound relationships using key words and pictures, and he applied this method to not only Tagalog but a total of 312 languages during the course of his career. Phonics, based on the interaction between written and spoken language, is the heart of the Laubach method.

The Laubach method has always centered on the relationship between volunteers and learners. Three philosophical commitments underpin the system: Literacy programs should be a means to other ends, such as mission work or community development; programs should begin with the

problems of participants; and learners should play an active part in the teaching process (Ilsley, 1985). By the time of its 2002 merger with LVA, Laubach had 1,100 member programs in the United States and was the country's largest volunteer literacy organization. Laubach reported that during 2000–2001, an estimated 88,687 volunteers participated in its program, serving 170,200 students. Of this total, 36,791 were involved in literacy for new readers and writers; 22,458 in ESOL; 3,384 in math; 1,735 in "other;" and 8,279 "not indicated" (Laubach Literacy Action, 2001, p. 2). Laubach stated that volunteer numbers have declined over the last 5 years while student enrollment has increased by 11% (Laubach Literacy Action, 2001, p. 2).

LVA was founded by Ruth Colvin in 1962, and her approach differed from Laubach's from the start. One critical distinction between LVA and Laubach was the role of phonics. Phonics was Laubach's primary instructional approach, whereas LVA used phonics as a peripheral strategy to decode text as a first step to interpreting meaning. LVA provided volunteer tutors with an intensive 18-hour training program (Ilsley, 1985) that included phonics, word patterns, context clues, sight words, and the language experience approach (an approach in which beginning readers dictate a story to the tutor, who writes it down and uses this learner-generated text for instruction). In 2000, LVA had a national network of 350 volunteer programs serving 80,000 learners annually (Laubach Literacy Action, 2000). Of the volunteers, 32,584 served as tutors, 852 as certified trainers, 3,749 as board members, and 4,674 in administrative support, with some volunteers having multiple roles (LVA, 2001).

Despite their differences, the two organizations shared many features before their merger. Both have been national leaders in the literacy field and view literacy as a resource for improving lives. Their merger makes sense as a strategy to strengthen the delivery of voluntary adult literacy education and to increase adult literacy's political presence at the federal and local level. Their influence calls into question the argument that voluntary provision is only a temporary stage in the development of professionalized educational provision, as suggested several decades ago during the early development of these organizations (Hely, 1960).

With regard to diversity, Laubach reports that 82% of its volunteers and 41.5% of its students are White (Laubach Literacy Action, 2001), and LVA reports 68% of its tutors and 26% of its students are White (LVA, 2001).<sup>3</sup> For as long as figures have been available, White tutors have

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<sup>3</sup>The ethnic group(s) of the tutors who are not White are not reported.

predominated, although the tutor population has slowly become more diverse over the decades. In 1974, Stauffer reported data from a nationally representative sample of literacy volunteer programs showing that almost 99% of tutors were White (Stauffer, 1974). Learners, however, tend to be more diverse in both race and age. Fifty percent of LVA volunteers are over age 45, whereas 66% of learners are under the age of 45, and 21% are under the age of 24. There are also slight gender differences: Seventy-two percent of volunteers are female, compared with 57% of learners (LVA, 2001). Although the volunteer organizations did not respond to our queries about their approach to diversity, the difference in the composition of the learner group and tutor workforce suggests that it should be addressed.

These voluntary organizations have a unique connection with libraries as a venue for volunteers working with adult learners. A study by the Library Research Center in 1999 (Estabrook & Lakner, 1999) found that 90% of the libraries surveyed provided literacy services. One popular arrangement has been for libraries to accommodate and offer some support to local programs, such as LVA and Laubach (Ilsley, 1985). LVA staff estimated in 1985 that 95% of their affiliates had a cooperative relationship with a library (Kangisser, 1985).

### **VOLUNTEERS IN THE PROGRAM SETTING**

The majority of volunteers are used as one-to-one tutors (Hambly, 1998; Tenenbaum & Strang, 1992; U.S. Department of Education, 1986, 1989, 1990). A recent survey of state directors from 43 states and the District of Columbia (Belzer, 2002) found that in state-administered programs, 18 states use volunteers primarily as one-to-one instructors teaching a variety of content areas. One state uses volunteers primarily as one-to-one instructors specializing in a particular content area, and no state uses volunteers primarily as classroom assistants. Nineteen states use volunteers in some combination of these roles, and six states use volunteers in all of these roles, including "serving on advisory committees and community boards, classroom teachers, facilitators of small groups, and clerical support" (Belzer, 2002, p. 3).

Volunteers serve in noninstructional roles as well, in both volunteer literacy programs and state-administered literacy programs (Belzer, 2002; Tenenbaum & Strang, 1992; U.S. Department of Education, 1989). For



example, a report providing examples of ways literacy programs use volunteers (U.S. Department of Education, 1990) described a number of roles for volunteers other than tutoring, including facilitation of an adult literacy education speakers' bureau, mentoring other tutors, raising funds, recruiting students for programs, remodeling buildings, assessing disabilities, designing curricula, and assessing vision and hearing. Kawulich (1989) argues that "the various talents of volunteers can be a boon to underfunded programs when existing resources are insufficient for meeting existing needs" (p. 52). She then suggests a variety of ways volunteers could be used, other than as one-to-one tutors:

- *Support services:* child care; transportation, counseling, student follow-up, graduation planning, recognition efforts, translation, or development of public service announcements.

- *Clerical services:* filing, bookkeeping, typing, telephoning, telephone answering, library maintenance, data entry, or copying.

- *Resources and public relations:* fundraising; resource solicitation; speech writing or making; materials collection; lobbying; grant writing; classroom space procurement; publicity; advertising; graphic design; newsletter writing, design, and layout; outreach and recruitment; public service announcement development; or videotaping.

- *Instruction:* recorded readings, training of volunteers, coordination of volunteers, student and tutor matching, small group leader, lesson planning, curriculum development, or revision of materials.

- *Administration:* planning, form completion, data collection, testing, research, or correspondence (p. 53).

Some researchers and educators argue that tutors should play support roles rather than be involved in direct instruction (Pohl, 1990). For example, one participant in a Canadian roundtable discussion on the use of volunteers in adult literacy education stated:

I think the programs that I've seen that are the most successful—who use either a combination of community volunteers and peer tutors within the program—are using them as adjuncts to the program. The volunteers are actually integrated within the program. It's not, here's your pay, you go off and do a bunch with them. It's much more the volunteer is augmenting some other activities that are taking place within the program setting, be it on site or in some other kind of capacity. (Ontario Department of Education, 1991, p. 5)

## Training for Volunteers

Typically, support for volunteers has consisted of mandatory initial training and optional follow-up sessions (Meyer, 1985). Training for volunteer tutors in Laubach and LVA programs usually lasts between 12 and 18 hours (Meyer, 1985; Tenenbaum & Strang, 1992; Unwin, 1989).

Although the national Laubach and LVA organizations have traditionally mandated approaches to tutor training, there is some flexibility at the local level (Freer, 1993; Tenenbaum & Strang, 1992). Unwin (1989) states that in the Laubach-affiliated programs, tutors complete a 12-hour training program conducted locally by certified trainers. Generally, this training consists of teaching tutors how to use the Laubach Way to Reading with students, although local programs can modify this approach. Freer (1993) argues, for instance, that the "primary instructional approach in Laubach Literacy Action's new basic literacy tutor training will be a local option, not necessarily the Laubach Way to Reading" (p. 1). This also seems to be the case among LVA affiliates, as some local affiliates add components to the basic training to cover additional topics, such as learning disabilities (Literacy Volunteers of America Mercer County, undated). In LVA-affiliated programs, tutors go through an 18-hour training course focused on defining literacy, learning about learners and tutors, understanding the four language components (reading, writing, speaking, and listening), and learning techniques for literacy instruction (language experience approach, sight words and phonics clues, phonics, word patterns, and writing). LVA training also includes segments on both formal (grade equivalents and readability formulas) and informal (portfolio as well as informal oral reading and writing) assessment, helping learners set short- and long-term goals, and creating lesson plans based on assessments and learner goals. LVA's training mixes introductions, videos, demonstrations, learning tasks or practices, discussions, homework, and review (LVAMC, undated). ProLiteracy International and the National Center for Family Literacy are undertaking an initiative to move tutor training online, making it available anywhere in the country at any time.

Programs not affiliated with Laubach or LVA have widely varying training requirements. For example, a program in Bellevue, Illinois, provided 8 hours of initial training, whereas a program at Boston University has tutors receive an initial 18 hours of training, plus additional hours throughout the semester, for a total of 112 hours (Witherell, 1992).

Some literacy programs are experimenting with the *form* of tutor training in an attempt to address the problem of how to teach volunteer tutors

the concept of student-centered learning. Reporting on one such attempt, Talarr (1995) states that regardless of what training style she used to introduce literacy tutoring methods, she found that it was first necessary “to figure out how a nonprofessional could move beyond an ideology that focuses on learners’ deficiencies to one that focuses on their strengths, in order to be able to help learners build on them” (p. 385). She found that after tutor training, tutors often “reverted to traditional teaching, and if they perceived that learners weren’t getting their instruction, they often blamed the learners for some shortcoming . . . rather than reflect on their own practice” (p. 384). To address this issue, she introduced training activities through which tutors see that “learning becomes a dynamic relationship rather than transmission of a predetermined body of knowledge or a static position between knower and learner in which the learner is subordinate” (p. 385).

After initial training, many tutors still feel underprepared, have a sense of isolation once they begin their tutoring, and suffer from retention problems (Cook, Dooley, & Fuller, 1994). Cook, Dooley, and Fuller, a research team made up of adult literacy practitioners from Virginia, conducted focus groups with literacy volunteers and found that although material resources are important to them, tutors also stressed the importance of having staff and other support personnel to turn to when they had questions. Cook et al. (1994) state that the tutors they talked with “were looking to other people, primarily in one-on-one contact, to help them with problems” (p. 8). Because of such problems, there is a general consensus in the literature that in addition to initial training, volunteers also need follow-up trainings and ongoing support by programs (Fingeret & Danin, 1991; Ilsley, 1990; Kawulich, 1989; Pohl, 1990; Tenenbaum & Strang, 1992; U.S. Department of Education, 1989; Witherell, 1992).

### **Volunteer Tutor Practices**

Although volunteers provide a range of services within literacy programs, much of the literature describing volunteer practices focuses on the role of tutor. For decades, one-to-one tutoring was the dominant mode of tutoring in volunteer literacy programs, including LVA and Laubach (Demettrion, 1999). However, use of alternative, more collaborative models is growing (Freer & Enoch, 1994). Since the late 1980s, LVA has broadened its emphasis to include collaborative learning (Cheatham, Colvin, & Laminack, 1993; Cheatham & Lawson, 1990; Demettrion, 1999; Freer, 1993; Freer & Enoch, 1994). This strategy reflects “current thinking in adult literacy education,” supporting a learner-centered philosophy and a whole

language approach to literacy (Freer, 1993, p. 1). Collaborative learning emphasizes the advantages of learning in groups rather than one-to-one. As described by Cheatham and Lawson (1990), collaborative learning

contends that we learn from each other, from our interactions with each other and with our environments. We can refine our thinking only as we discuss with others, as we read what others have written, or as we listen to what others say. This collaborative learning sees all people as social beings and learning as a social event. (p. 4)

For instance, Demetrian (1999) reports on a scaffolding paradigm of learning developed at the Bob Steele Reading Center that includes a “strong emphasis on whole language theory, a respect for process, and collaborative learning, broadly conceived” (p. 61). Other examples of tutors moving beyond the one-to-one model are seen in the 1990 report *Volunteers in Adult Education* (U.S. Dept. of Education, 1990). Of the 14 descriptions of instructional practices involving volunteers, 7 described one-to-one tutoring, 6 described activities for use with groups, and 1 was unclear and could have been used for both.

Some educators support the move toward group instruction (Kazemak, 1988) because of the disadvantages they see in one-to-one tutoring:

The commonly held assumption that supports this practice—that illiterate adults are ashamed of their illiteracy and cannot or will not participate in group instruction—is questionable. One-on-one tutoring not only disregards the social supports available in group instruction; at worst, it can foster unequal relationships between adults; the tutor is the knowing teacher while the student is the dependent illiterate. Instead of a dialogic relationship, such programs too often reinforce the misgivings that many adult students have about their own abilities. As Green, Reder, and Conklin observe, “Even in home tutoring, the dynamics of being tutored by a stranger evoke formal instruction expectations and anxieties” (1988, p. 4). (pp. 474–475)

However, a group instruction approach is not without problems. Freer and Enoch (1994) reported on a pilot project for collaborative tutoring sponsored by LVA. Although their findings reinforced other literature demonstrating the benefits of collaborative learning groups, including that learners gained both psychosocial and cognitive benefits from collaborative learning groups, they also noted difficulties arising among both learners and group facilitators. Some learners experienced “fear of making mistakes and being embarrassed in front of peers” as well as “interpersonal struggles within the group due to different goals, expectations, and cultural backgrounds” (p. 136). Freer and Enoch (1994) surmise that these

problems could have been caused or exacerbated by tutors who needed further experience in facilitating groups and who lacked “the ability to develop cohesiveness among groups that have varied abilities” (p. 139). Tutors experienced additional problems, including not knowing how to navigate the “wide disparity in reading levels and abilities” (p. 137). They concluded that the small group/collaborative approach requires programs to supply increased training, follow-up in-service training, ongoing tutor support, and a sound volunteer management system.

Another alternative to the traditional model of one-on-one tutoring is volunteers working as classroom aides, assisting paid teachers directly in the classroom. This approach has been utilized in programs in Massachusetts, for example, as part of the Commonwealth Literacy Corps, initiated in 1988. In this program, volunteers are trained either to provide one-on-one instruction to students or to serve as classroom aides in programs in which teachers use tutors to facilitate small-group work while teachers help other students. (See Massachusetts Department of Education Guidelines for Effective Adult Basic Education Education, <http://www.doe.mass.edu/acls/wiatitleii/abeguide.pdf>, pp. 3–4).

Tutors usually rely on methods they learned in training sessions, which can include instructional approaches beyond workbooks, traditional direct instruction, and drill and practice. For instance, tutors from Drexel University involved in the Student Literacy Corps in Philadelphia are encouraged to help “learners to take considerable initiative in their pursuit of reading and writing competency” (D’Annunzio, 1996, p. 14). Tutors in this program are trained to use three nonintrusive procedures: the language experience approach, individualized reading, and expressive writing. These learning strategies were “combined with the pervasive use of nondirective counseling procedures to establish an experiential, meaningful, whole-person learning situation” (p. 14). Witherell (1992) reported another innovative tutoring approach. In the community-based volunteer literacy program she describes, instruction includes language experience stories, sentence writing, journal writing, and writing for publication in the program’s literacy magazine.

### **FROM THE VOLUNTEER’S PERSPECTIVE**

This section outlines some of the reasons volunteers give for participating in literacy education and highlights some of the challenges they face.

## **Volunteer Motivation and Commitment**

Tutors have given a number of reasons for volunteering, most reflecting the humanitarian impulse to help those in need of reading skills (Cook, Dooley, & Fuller, 1994). A study of volunteer tutors in three literacy organizations in Virginia found that "most tutors volunteer for the big ideals: passing on the gift of reading, making an impact in lives, conquering the problem of illiteracy, finding a teacher's dream" (Cook et al., 1994, p. 16). In addition, many tutors volunteered in a one-to-one tutoring program because they assumed that this approach would be especially effective, given the amount of time they were able to devote (Cook et al., 1994). These volunteer tutors were also drawn to the idea of self-motivated adult learners, whom they assumed would "have a higher degree of interest in learning than students in other programs" (Cook et al., 1994, p. 3).

One study of the factors involved in volunteering in a wide range of settings found that volunteers' motivations change over time (Ilsley, 1990). The study was a 4-year qualitative research project conducted in seven cities and towns in three U.S. states. More than 300 interviews were conducted with 180 paid staff, managers, and volunteers in 34 organizations in urban, suburban, and rural areas. Organizations included in the study were neighborhood groups, museum volunteer organizations, religious volunteer programs, cancer and AIDS hospices, peace and feminist movements, and adult literacy programs. Laubach and LVA were the adult literacy programs in the study. Ilsley and his associates interviewed people in the national headquarters of both organizations, and at the state offices in New York, Illinois, and California, as well as volunteers from various local chapters of the organizations. Researchers also attended staff meetings, conferences, and training sessions.

Ilsley (1990) found that, in general, new volunteers "enter the organization full of expectations and enthusiasm and with very clear ideas of their reasons for joining" (p. 31). Over time, however, volunteers become socialized to the organization so that "their values often change as well, becoming so aligned with those of the organization and its mission that the volunteers no longer give much conscious thought to why they continue to serve. Their work is simply an accepted part of 'who they are'" (p. 31).

Ilsley stresses the importance of knowing volunteers' motivation, suggesting that this knowledge can "improve decisions about task assignment, organization, and conduct of meetings, systems of recognition and reward, and many other facts of program structure, and it can help managers plan

programs that will produce steadier performance, better attendance, and longer duration of service” (p. 17). Ilsley also suggests that for an organization to motivate volunteers to join and stay it needs to

build flexibility into its program—allowing volunteers to change tasks and roles, for example—to not only recognize but also take advantage of changing volunteer motivations. Some organizations lose volunteers because they continually treat the volunteers as if they were new and had new volunteers’ motives. (p. 31)

Reacting to volunteers’ motives and their changing needs over time seems especially crucial to adult literacy organizations because, of all the volunteer groups in Ilsley’s study, adult literacy volunteers were typically involved for the shortest amount of time. Ilsley’s figure of less than a year as the typical duration of adult literacy volunteers is supported by other research (Witherell, 1992) and stands in contrast to other types of organizations, such as museum and women’s peace groups, in which volunteers had an average of more than a 10-year commitment. To explain this contrast, Ilsley focuses on whether volunteers in these organizations provide opportunities for instrumental/didactic, social/expressive, or critically reflective forms of learning. Ilsley (1990) speculates that perhaps one reason for the short duration of adult literacy volunteer service is that the training provided is often didactic skill training, which “loses its appeal once the skills have been mastered” (p. 71). This kind of learning “is aimed at increasing the professional appearance of an organization’s volunteers” and seeks to “instill minimum levels of competence so that volunteers can feel assured that they will have the intellectual tools they need for their assignment” (p. 62). In other organizations, “learning that is related to problem solving and critical awareness is more slowly elaborated and holds a person’s attention far longer” (p. 71). Perhaps one key to increasing volunteer commitment within adult literacy programs would be “to make the establishment of a healthy learning climate and multiple opportunities for learning a high priority” (p. 71).

### **Challenges Faced by Volunteers**

The short duration of volunteer service in adult literacy education may also be related to the problems volunteers encounter (Cook et al., 1994; Horrell, 1983; Witherell, 1992). Adult literacy volunteers reported such problems as:



- **Frustration at students' lack of progress and perceived levels of commitment.** Witherell (1992) points out that tutors often have difficulty dealing with learners' slow progress and states, "They go into the program expecting to work miracles in a year and are disappointed when they feel that all their efforts do not reveal any progress" (p. 10). Tutors become more frustrated when they spend time preparing for sessions and learners do not show up (Witherell, 1992).

- **Feelings of being inadequately trained.** Cook et al. (1994) found that about half the tutors in their focus groups felt they were not prepared well enough initially. Follow-up training is usually not mandatory for tutors, further exacerbating this problem (Witherell, 1992).

- **Lack of resources and support.** Tutors "wished for access to experienced tutors or specialists for help in dealing with the new tutoring experience" (Cook et al., 1994, p. 9). Witherell (1992) discusses the tutor burnout factor, caused at least in part by their working in isolation in understaffed and underfunded programs.

- **An inability or unwillingness to deal with students' personal problems.** Tutors get frustrated when these problems affect learners' progress and commitment (Cook et al., 1994; Witherell, 1992).

Many volunteer tutors gain rewards from their experience despite the problems they encounter, often because their students gain academic skills and self-esteem. Although all tutors feel some frustration, "it is how the tutor reacts to these frustrations that will determine whether or not the tutor will find a real satisfaction in the tutoring experience" (Cook et al., 1994, p. 16). Tutors who seem able to deal with these frustrations typically have two characteristics, "the ability to get excited by small goals or successes [of their students] and being able to see the student's life from his [sic] own perspective" (Cook et al., 1994, p. 17).

Isley (1990) offers suggestions for keeping volunteers motivated:

- Allow volunteers to participate in problem solving and significant decision making.

- Assign volunteers to tasks and roles that fit their individual needs and interests.

- Give volunteers work that offers opportunities for both personal development and meaningful service.

- Soon after volunteers join the organization, work out explicit agreements that specify a feasible commitment of time and other resources and allow for personal variations in time, energy, and interest.



- Provide on-the-job experiences that include constant opportunities both for reflective study and evaluation and for joint planning of organizational service goals and action. Much of volunteers' continuing motivation comes from seeing clear steps that lead toward the group's goals and then successfully completing them one by one.
- Provide a job structure that allows for individual advancement through a series of steps that lead to higher levels of responsibility, skill, and influence.
- Develop channels for supportive feedback from clients, co-workers, and managers or leaders, and for recognition of volunteers by the organization and the community.
- Encourage meaningful learning activities both inside and outside the organization. (pp. 31–32)

Other proposed solutions include increasing funding for programs and supplying more support staff, which could help solve the problem of tutor burnout by providing more ongoing support and training (Witherell, 1992). Kawulich (1989) states that although many volunteers "derive personal satisfaction from their work and require no other reward, the recognition of effort can be achieved in many ways" (pp. 54–55), including providing letters of recommendation for promising volunteers; asking volunteers to take on additional responsibilities; letting volunteers know they are valued; presenting volunteers with awards, certificates, or plaques; and providing financial incentives, including sponsoring volunteer attendance at conferences.

## **CONTROVERSIES IN ADULT LITERACY VOLUNTEERISM**

The use of volunteers sparks intense debate among educators and researchers working in adult literacy education. Traditionally, volunteers have played a significant role in the education of adults, but questions about the most effective, efficient, and appropriate way to shape and support that role have been asked for a long time. Writing in the *Handbook of Adult Education in the United States*, Houle (1960) identified two significant issues related to the use of volunteers. The first concerned using lay leaders to lead discussions of highly complex subject matter, which specialists in the subject might see as inappropriate and insufficiently informed. Houle's solution was to view volunteers as "first among equals" (p. 122),

encouraging a collaborative approach to learning rather than having them take on the role of expert. The second issue concerned volunteer training—questions such as whether volunteers should receive specialized or general training, and whether it should focus on content or methods. Houle's response was that a diversity of approaches to the use of volunteers was both desirable and inevitable.

Current debates about volunteers in adult literacy education include Houle's concerns as well as other related issues. These debates center around three main issues: the quality of instruction provided by volunteers; the impact of professionalization in adult literacy education on the use of volunteers; and accountability for programs using volunteers. The fundamental question underpinning much of this debate is whether the cost of managing and supporting volunteers is justified by the services they provide (Knox, 1993).

### **Quality of Instruction Provided by Volunteers**

Much debate concerns the quality of instruction provided by volunteers. That is, educators and researchers question whether volunteers without specialized training can effectively teach reading, but there is very little empirical research-based literature concerning the quality of instruction. This section presents the little empirical research found and relies heavily on the opinions of educators, presumably formed as a result of personal experience. Many researchers and educators in the field of adult literacy, especially those trained in reading education, question the value and effectiveness of the instruction volunteer tutors provide adult learners, despite tutors' good intentions (Balmuth, 1987; Ceprano, 1995; Hambly, 1998; Kazemak, 1988; Mealey & Konopak, 1992; Meyer, 1985; Park, 1984; Pohl, 1990). Practitioners working in adult literacy share this concern, as evidenced by discussions on the National Institute for Literacy-sponsored National Literacy Advocacy (NLA) listserv (the role of volunteers was the subject of several long threads in 1997 and 2001). Inadequate training is at the center of criticism regarding instructional quality provided by volunteers. Among the criticisms are that tutors are not trained in use of the most effective reading instruction strategies; they are not adequately trained to deal with students' learning disabilities and past educational failures, both of which may interfere with learning; and they do not receive sufficient training to teach the lowest level learners.

***Tutors' Use of Effective Reading Strategies.*** One of the few examples of empirical research we came across on this issue was Ceprano's (1995) study in which she interviewed 16 LVA-trained volunteer tutors about their strategies for selecting reading materials, treating miscues, preparing students for reading success, questioning for comprehension, and teaching word meaning. She found that volunteer tutors usually have good intentions, but they frequently did not use strategies "currently recognized as most effective" (p. 56) within the world of reading. For instance, with regard to the treatment of miscues, Ceprano cites Barr, Sadow, & Blachowicz (1990) and Goodman (1976), who agree "that correction of miscues that are grammatically acceptable and that do not significantly alter passage meaning should not be required from students as they engage in supervised oral reading" (p. 58). When reading miscues change the meaning of the passages read, Ceprano states that reading researchers generally agree that teachers should avoid lengthy discussions of each error, which would distract the reader from gaining meaning from the passage. Instead, teachers are "encouraged to casually interject the correction as soon as the reader makes the error, so that meaning acquisition is not disrupted" (p. 58). However, Ceprano found that the tutors she interviewed typically veered from recommended strategies. Ceprano concludes that most tutors:

utilize instructional strategies and practices that could ultimately lead to feelings of frustration and defeat for their clients. Indeed, teaching strategies and practices of volunteer tutors seemed to be based more on models to which they themselves were exposed as learners (with the assumption that what worked for them will work for anyone), than on current theory and practice. Unfortunately, for the adult illiterate who takes the difficult step of seeking help, an instructional approach methodology that was previously (and may still be) inadequate will almost certainly produce aversion. (p. 63)

Another reading specialist, Meyer (1985), is of the opinion that:

many well-meaning volunteers believe that because they themselves can read, they are capable of teaching another person to read. This attitude, although well intended, is an oversimplification of the skills necessary to teach an adult illiterate to read. Beyond decoding, reading involves a thinking process while interacting with text in a meaningful manner. Volunteer training must not separate learning to read from reading to learn. (p. 707)

***Tutors' Ability to Deal With Students' Learning Disabilities and Past Educational Failures.*** Commenting on the participants in an all-day tutor training workshop he conducted, Kazemak (1988) states that although these volunteers "cared, and cared deeply, about their adult students, they did not know enough about the nature of adult teaching and learning in general, and adult literacy instruction in particular" (p. 468). Kazemak specifically worries whether volunteers' training is adequate to deal with adult students' learning disabilities:

The task of literacy tutors is made even more difficult by the fact that many of their adult students have already experienced failure with reading and writing, and bring with them the psychological and emotional distress that accompanies such failure. Again, caring is necessary, but not sufficient. The adult literacy instructor also needs knowledge, skills, strategies, and an understanding of the adult learner. (pp. 468-469)

Meyer (1985) also expresses the opinion that students' learning disabilities pose a challenge to tutors who may not have the teaching strategies needed to address them. She argues that neither Laubach nor LVA "equips tutors adequately to detect learning disabilities. Unfortunately, a volunteer tutor may do more harm than good in these instances; a learning disabled adult may have his/her expectations raised, only to face failure again" (p. 707). Both LVA and Laubach have addressed the criticism about lack of training for volunteers to work with learning-disabled adults by sponsoring programs and research to "improve their services to adults with learning disabilities (or the characteristics of learning disabilities)" (Virginia Adult Learning Resource Center, 2000).

***Tutors' Effectiveness With Lowest Level Learners.*** Another concern related to quality of instruction is some states' common practice of using volunteer tutors to work with the lowest levels of students (Tenenbaum & Strang, 1992), whereas students at higher levels are served through classes or drop-in clinics staffed by trained teachers. A typical pattern is that Laubach and LVA provide one-to-one tutoring to the individuals with the lowest assessed skill level, who then move into more formal classrooms when they reach the skill level deemed to be appropriate (for example, 4th grade). This can be seen as a win-win situation: The voluntary agencies get state funding, and the state gets high-quality services and an opportunity to count volunteers as state-managed providers. Another way of looking at this, however, is that volunteers actually provide the state with a cut-rate workforce willing to tackle some of the hardest-to-reach learn-

ers. We could find little written on the subject but raised the topic when talking with the state directors of adult literacy. They were familiar with this practice, and even those whose states widely used it were cautious about and even critical of the practice. One director who said her state uses this approach only in a small number of cases speculated that the practice is generally widespread because programs might assume that lower level students are easier to teach or that teaching a lower level student does not require as much training or expertise as teaching a student at a higher level. She stated that another assumption underpinning this practice is that lower level students need one-to-one instruction. She explained that programs think this approach is appropriate, and, therefore, it seems more efficient to match a volunteer tutor with a lower level student rather than use a full-time teacher. She expressed concern about this approach because she believes paid teachers are better trained, more skilled, and more experienced, and thus better able to work with lower level students.

Another state director agreed with this assessment. She stated that volunteer organizations often have the luxury of doing one-to-one instruction, and the prevailing wisdom—whether right or wrong—is that lower level learners will do better with more time and attention given through one-to-one instruction. She surmised that this thinking could be traced back to the popularity of the Laubach model of teaching reading. In her state, learners who test at lower levels when they enter state-sponsored programs get placed in one-to-one instruction with volunteer tutors. She explained that the programs use this practice because they believe that although the volunteers have the least amount of formal training, they have the most time to devote to one-to-one instruction. She stated that she had seen great successes in one-to-one tutoring, especially because tutors can be supportive and patient with lower level learners, but she has also seen a great deal of frustration among tutors and learners. She explained that she therefore sees this practice as somewhat problematic, stating that it is “misleading” to ask tutors untrained in dealing with learning disabilities, mental health issues, and other learner problems to work with those in the greatest need of trained teachers.

A Canadian roundtable discussion on volunteers in literacy education also addressed this issue. One participant argued against the practice of placing the lowest level readers with volunteer tutors:

Certainly in the [United] States . . . people who were reading, for a lack of terminology, below grade four, are often the ones that are delivered to volunteer programs. Often, out of that population, those are people who fall into that category of having been to school, having some kind of learning

difficulties and needing some specific kind of learning strategies and approaches that are unlikely to have been acquired by volunteer tutors. Not due to any ill will or even lack of desire on their own part, but just lack of experience in the field. Occasionally, I know, those folks are trained teachers, and that's useful, and they can be utilized in that way. But a lot of times, they're not. That's when the quality does come into it. It seems to me that the people who need the most experienced adult education and adult literacy workers are the people that aren't getting them. The people with the most experience are teaching the upper levels who, I figure, a good trained volunteer would do the best work with. (Ontario Department of Education, 1991, p. 2)

***Suggested Solutions for Improving Quality of Instruction Provided by Tutors.*** Often, those who are critical also provide suggestions to improve the quality of instruction. For instance, Ceprano (1995) suggests:

Volunteer training curricula should be designed to provide knowledge of a variety of teaching approaches and techniques that can facilitate the adult learner's acquisition of literacy skills. In addition, training should also provide insights on how to evaluate the learner's particular learning strengths and weaknesses, and how to use such information in effectively choosing and implementing an instructional approach. (p. 63)

She goes on to argue that reading professionals should provide mentoring to tutors, either to "reinforce good tutoring practices or suggest alternative strategies that will yield more results" (p. 63).

Other solutions include asking the government for more money to support professionals within literacy programs and decreasing reliance on volunteers. Kazemak (1988) argues, "We must not be satisfied with platitudes and paltry sums of money to run advertising campaigns and sorely inadequate volunteer programs" (p. 483). Instead, he calls for literacy professionals to:

Demand that federal and state governments provide adequate funding for adult literacy education. . . . Without adequate funding for programs, materials, teachers, and so forth, professionals ultimately will have little long-term effect upon the nature of adult literacy education in the United States. (p. 483)

Despite criticisms of the current quality of volunteers in adult literacy programs, educators also point to instances of success, where volunteers have made a unique and valuable contribution in adult literacy education, arguing that the use of volunteers should continue or increase (Jones,

1991; Kawulich, 1989; Waite, 1983). For example, in an evaluation of the Drexel University program mentioned earlier, interviews with tutors and learners indicated that:

learners had made considerable progress in working toward their stated goals; their collaboration in assessing progress provided learners with continuous feedback, learners' interests and functional literacy needs were met as a natural outgrowth of the nonintrusive learning procedures, and rapid progress had been made in reading and writing. (D'Annunzio, 1996, p. 16)

Kearney (1999), too, found that learners receive positive impact from participating in volunteer literacy programs. In an economic impact analysis of LVA based on interviews with 217 ESOL and basic literacy learners in New York and Wisconsin, in which he collected both qualitative and quantitative data, Kearney (1999) reported that:

Overall, students are very satisfied with the economic improvements they have realized as a result of LVA's efforts. Students have also experienced significant improvements in their basic skills as well as in their roles as parents, citizens, and employees. LVA has been the primary source of the improvements in most aspects of the students' lives. (p. 8)

Waite (1983) argues that "the average individual is quite capable of assisting someone in learning to read" and states that the use of volunteers in literacy tutoring should be expanded (p. 4), a view shared by Rogers (1984). Waite states that when three fundamental components are in place, "a potential reader is capable of deducing the decoding process" (p. 4). These components are:

- A comfortable environment. Physical surroundings must be comfortable to the student and suitable for learning.
- Relevant training materials. Reading materials must be appropriate to the student's goals, abilities, and interests.
- A supportive relationship. The teacher, tutor, mentor, friend, pastor, or other individual must be committed to assisting the person in learning how to read and have some knowledge on how to proceed. (p. 4)

The distinctive contribution of volunteers was discussed in both a Canadian roundtable on adult literacy volunteers, and in two recent (1997 and 2001) NLA listserv discussion on volunteers:

A lot of creative things do come out of the volunteers. It would feel wrong not to have volunteers in a community program, for me. One aspect of

volunteers that seems very positive to me is that process that somebody mentioned of being a tutor and then becoming a literacy worker. It's a way that a person in a particular community without, necessarily, any formal teachers' training or background of that kind can become part of a literacy program. It's something that kind of renews that program. So, I think there are positive aspects to having a program that brings people in front of the community as volunteers. As you were mentioning, they go out into the community again and influence how things are done in the community. (Ontario Department of Education, 1991, pp. 3–4)

### **Impact of Professionalization in Adult Literacy Education**

Shanahan, Meehan, and Mogge (1994) suggest that professionalization can be regarded as “the movement of any field towards some standards of educational preparation and competency” (p. 1) by attempting to (a) use education or training to improve the quality of practice; (b) standardize professional responses; (c) define a collection of persons as representing a field of endeavor; and (d) enhance communication within that field.

The professionalization of adult literacy instructors, a growing trend throughout North America (Sabatini, Ginsburg, & Russell, 2002), raises several questions about the role of volunteers. As is typical in adult literacy education, each state has its own approach to professionalization (Sabatini et al., 2002). There is a shared assumption in the theoretical and policy literature that professionalization refers specifically to instructors—very often administrators are already part of a profession, such as nonprofit management or educational administration. Although ProLiteracy supports the professionalization of *volunteers* (Waite, personal communication, January 22, 2003), here the discussion is limited to how the professionalization of *paid instructors* has an impact on literacy volunteerism.

According to the American Heritage Dictionary, a professional is “one who has an assured competence in a particular field or occupation” (cited in Shanahan et al., 1994, p. 1). In addition to the assurance of high-quality service to consumers stemming from such competence, arguments for professionalization include the advantages to practitioners:

The claim to unique competence, legally supported, is the basic strategy of professionalization. . . . The advantages of professional (monopoly) status are to guarantee high material rewards, exclude outside judgment of performance and give guaranteed security of tenure to those allowed to practice. (Jary & Jary, 1995, p. 525)



One way professionalization of paid instructors has an impact on volunteers is that with increased professionalization comes the increased power of a profession to exclude some people while including others, even if this exclusion is based on the most objective criteria possible. In effect, professions set up a barrier of competency, with professionals on one side and nonprofessionals on the other. This barrier challenges the role of volunteers as, once again, volunteers are seen as inferior to professionals. Yet there is little evidence that the trappings of professionalization ensure a more effective educational experience for learners (Shanahan et al., 1994).

The central characteristic of professionalization in adult literacy education is credentialing (Sabatini, Daniels, Ginsburg, Limeul, Russell, & Stites, 2000; Shanahan et al., 1994). A National Institute for Literacy (NIFL, 2000) publication reports that 51% of 53 states and territories require some form of certification for adult literacy instructors. However, the nature of the credential can vary a great deal, from high school plus professional development to a K–12 teaching credential. This concerns some adult educators expressing their opinions on the NLA listserv, who believe that the skills and experience required to teach adults well are quite different from those used to teach children.

One important challenge to a credentialing system in adult literacy is the extent of part-time work in the field (Wilson & Corbett, 2001). People will not participate in a professional credentialing process if they do not see that the credential offers some advantage to them. When literacy instructors are working a handful of hours a week for just over minimum wage, the inconvenience of obtaining the credential can be a substantial disincentive. The same concerns apply to volunteers, who might be unlikely to commit a significant amount of time to educational preparation and obtaining a credential.

On one hand, professionalization has the potential to affect volunteers in a negative way by moving them out of the real work of the program—the work done by professionals. It is hard to imagine a traditional professional setting in which volunteers could become involved in the activities Ilsley (1990) identifies as encouraging motivation: participating in significant decision making, being offered opportunities for personal development and meaningful service, and advancing to higher levels of skill and influence. The strength of the boundary between the competent professional and the amateur continually reemphasizes the nature of the volunteer's role. On the other hand, if put into practice with sufficient attention to the working conditions of instructors and volunteers, professionalization could benefit volunteers by providing a framework for their endeavors and

a pathway along which to develop skills. An example would be the development of volunteer master trainers and mentors able to share their knowledge and experience with new volunteers and staff alike. Volunteers could end up with an enhanced, paraprofessional status. The direction professionalization takes is likely to be a critical factor in the future of volunteers in adult literacy education.

### **Accountability for Programs Using Volunteers**

Contemporary education, including adult literacy education, strongly emphasizes accountability, usually considered in terms of the demonstrated outcomes of an educational process. Freer (1993) states that “the two national literacy volunteer programs [Laubach and LVA] have responded to these demands with additional training and materials for local programs” (p. 1) and argues:

Program evaluation and learner assessment will increasingly be issues for literacy volunteer programs, due to increased visibility, acceptance of public and private funds with demands for measurable outcomes, mandated learner participation due to welfare reform, and changing roles of learners in participatory programs. Debate over quantitative versus qualitative assessment procedures will continue as portfolio assessment research and practice gain wider acceptance for youth in the K–12 curriculum. (p. 2)

Recent legislative changes support the emphasis on accountability, the most wide-reaching being the National Reporting System required by Title II of the Workforce Investment Act of 1998. States are required to report learner progress to the federal government, which can then evaluate learners’ progress across the United States. The federal government is also able to examine learner performance in each state to ensure that the state is living up to its commitments. The states, in turn, are able to examine the performance of programs (Equipped for the Future, 2001). The Workforce Investment Act does not specify exactly how these data are to be collected. Among the proposed approaches is a framework based on the Equipped for the Future (EFF) initiative of the National Institute for Literacy. EFF, a map of adult basic education based on consultation with adult learners and input from subject-matter and educational researchers, has produced a report (Ananda, 2000) offering a systematic approach to performance-based assessment. This initiative provides a means to address accountability yet retains a rich understanding of the context and form of adult learning.

The National Reporting System raises the stakes for programs that do not meet outcome goals, meaning that instruction has to be both high quality and consistent. Meeting this standard could be hard with a volunteer workforce that has received only 18 hours of training and may have backgrounds other than education. Also, authentic testing requires complex skills that volunteers may not have. One factor making paper and pencil tests so reliable is that they are easy to administer. Performance-based assessments require a rich understanding of competence and the ability to judge it with accuracy and confidence. It is likely that continued emphasis on accountability, especially if it moves away from standardized tests, will limit the options for volunteers within literacy organizations.

## IMPLICATIONS

This final section discusses some of the implications for research, policy, and practice of our exploration of volunteerism. This discussion is somewhat speculative, but our intention is to provide food for thought to those involved in creating and managing volunteer programs.

### Implications for Research

There is a general need to expand research about volunteers in adult literacy education. Empirical or even normative data about certain key issues are lacking. For example, we could find very little about the relationship between volunteer practices and program outcomes. It would be useful for program planners to know whether and how volunteers affect the recruitment and persistence of learners, whether the amount of training a volunteer receives has any effect on growth in learner skills, and whether having volunteers as part of a program has a positive or negative effect on available resources, including those for materials or paid staff. Previous studies often accepted the presence of volunteers as a given and addressed such pragmatic issues as how best to manage them for value and effectiveness.

Adult literacy education, we suggest, is a unique context for volunteers. They are being asked to take on complex educational tasks (teaching reading, writing, math, and other core communication skills) with limited preparation and, our review suggests, not much ongoing support. Research is needed on the effectiveness of one-to-one volunteer tutoring for beginning learners, the costs of volunteer involvement compared to paid part-time

staff, and why volunteers do not stay longer in literacy programs. Such fundamental inquiry holds enormous potential to influence the way the field regards and manages volunteers. We also suggest that private foundations interested in volunteerism fund this research and encourage literacy instructors and volunteers to develop imaginative approaches to studying these and other questions.

### **Implications for Policy**

The major policy question is whether federal and state governments can reach some consensus on the role of volunteers in adult literacy provision. Increasing demands for accountability may also create pressures for programs utilizing volunteer tutors. For example, current accountability models are largely concerned with fairly high-level goals such as GED attainment or entry to college. As mentioned earlier, states often ask volunteers to work with new literacy learners, and to some extent this is a logical strategic response to the need to focus major resources on higher level learners to ensure their success. The current evaluation framework, the National Reporting System, can be seen as making volunteer contributions invisible by focusing only on higher level learners—with whom volunteers tend not to work.

### **Implications for Practice**

Our review suggests there are some useful and clear guidelines to involve and motivate volunteers in adult literacy education. They can be summarized in two words: flexibility and support. Volunteers should be given the chance to try different responsibilities as they gain work experience. At the same time, they need sufficient pre-service and in-service training, and good support systems for instructional issues and resources. The high turnover of literacy volunteers reflects the difficulty of the job and the piecemeal nature of current support systems.

Programs should think about their philosophy of volunteerism and aim for consistency. They should consider whether their organization sees volunteers as full participants in program management or bound by clear but limited expectations. It may be more important to be clear than to adopt any particular approach. Using volunteers to deliver prepackaged curriculum materials is very different from involving them in planning the entire provision of education. Some learners and volunteers will prefer the former, some the latter, and it is important to attempt to match the program's

orientation to that of the tutors and learners. One option programs might consider is having volunteers in expert roles, such as trainers within the organization. A volunteer who has been trained in administering a specific assessment or working with a particular type of learner is likely to have a higher degree of commitment to the program than one who does not feel a sense of accomplishment.

Overall, volunteers are likely to continue to play a number of important roles in adult literacy education. The form of their involvement is still open to question, however, and many aspects of volunteerism are not sufficiently researched or understood. When we do not know whether volunteers offer a net financial benefit after management costs are taken into account, whether they can be as effective as trained reading specialists, or whether they can be encouraged to stay with programs longer, we must recognize that the commitment to volunteerism is philosophical rather than pragmatic. Working with volunteers, or as a volunteer, in adult literacy education remains a challenging proposition requiring careful planning and thoughtful execution.

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# 6

## Adult Literacy in New Zealand

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Alice Johnson Cain  
John Benseman

This chapter provides an overview of recent developments in adult literacy in New Zealand. It is particularly timely because the New Zealand government's interest in and commitment to adult literacy has been gaining momentum in recent years; the government doubled adult literacy funding from 1999 to 2002. In May 2001, it launched the Adult Literacy Strategy, a comprehensive, long-term approach to improving adult literacy and closing the gap between the number of adults with literacy needs and the number participating in literacy programs. Although New Zealand has yet to provide a comprehensive system commensurate with need, it has constructed a framework for the adult literacy field that the United States can learn from as it struggles with similar issues.

### **NEW ZEALAND'S HISTORY AND POLICY FRAMEWORK**

Although many similarities exist between the United States and New Zealand, including a growing gap between rich and poor (with a disproportionate number of ethnic minorities and adults with pressing literacy needs

represented in the latter group), there are important differences. These include New Zealand's size (its landmass is similar to California, but its population of roughly four million is more comparable to South Carolina); geographic isolation in the South Pacific (its nearest neighbor, Australia, is 4 hours away by plane); greater dependence on overseas markets; an extremely deregulated economy; and differences in ethnic makeup and historical and ethnic politics. New Zealand has a government dominated by a left-of-center governing coalition. In its most recent election for prime minister, both major party candidates were women, and the current Prime Minister, Helen Clark, is the second woman to serve in that role. The current governor general (the titular head of state) and the chief justice are also women. Because New Zealand uses the European model of coalition governments, small political parties have significantly more power in shaping the nation's political agenda than in the United States.

### Recent Political History

Many political observers saw New Zealand as having strong liberal, progressive ideals in most spheres of life in comparison with other countries (Kelsey, 1995). After all, the country has been labeled the "social laboratory of the world" (Sinclair, 1968) and takes pride in its generally egalitarian ethos. New Zealand has a proud history as a leader in social policy innovation; in addition to being the first nation to give women the right to vote in 1893, it was also an early provider of universal health coverage for all its citizens, both adults and children.

However, a series of national (Conservative) governments carried out a New Right political revolution that ended in the late 1990s, driven by New Right goals of minimizing the role of government and making decisions based on competition in the market. Although these government reform programs were substantial and far reaching, support for such radical change gradually dwindled as evidence mounted that reforms did not produce expected economic miracles. Social discontent also grew as it became evident that poorer sectors of New Zealand society had paid a disproportionately higher price for the changes. (See, for example, Kelsey, 1995; O'Brien & Wilkes, 1993.) In particular, opposition grew to the "blitzkrieg" style of reforms characteristic of the New Right, and this culminated in a national referendum to change the "first past the post" electoral system<sup>1</sup> (used in Britain) to a mixed member proportional

<sup>1</sup>Many people saw this form of government as giving full license to undertake wholesale change with scant consultation once elected.

(MMP)<sup>2</sup> system similar to that used in Germany. This form of government is particularly significant for a country that has no upper house structure, such as the United States Senate, or a federal structure, such as Australia.

Since its introduction in 1996, MMP has undoubtedly changed the country's political landscape, as the two major parties have had to reach ongoing political agreements and compromises with the smaller political parties to pass legislation. Such requirements have slowed the pace of political change and introduced greater consultation both inside and outside Parliament. With the advent of MMP, many of the liberal, progressive ideals have returned, especially in the two most recent left-of-center coalition governments led by Prime Minister Helen Clark. Support for New Right goals is now largely confined to one small right-wing party.

### **Recent Economic History**

Dramatic economic transformations over the past few decades, including momentous structural changes in the 1980s, have had a major and lasting impact on education and training policy. Until the late 1960s, New Zealand's economy was closely tied to Great Britain, which provided a guaranteed market for New Zealand's mainly agricultural products. Extensive import barriers and tariffs characterized the highly regulated economy and strict import licensing laws established in the 1930s under the first Labour<sup>3</sup> government. Throughout the 1950s and 1960s, the economy relied heavily on import and export exchange controls, which protected profits and jobs. Unemployment was remarkably low, averaging less than 1% of the workforce. A large proportion of the workforce was relatively unskilled, but it was possible to earn a good living from unskilled work until the 1980s.

Starting in the late 1960s, the economy began to stagnate, following a major balance-of-payments shock and a gradual breakdown of wage-setting institutions. Other factors contributing to New Zealand's stagnation included a high degree of exposure to the worldwide oil shocks of the 1970s, the loss of the preferential trade relationship after Britain joined the European Common Market, and lower profits from farming—the backbone of the economy—as agricultural prices fell on the world market.

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<sup>2</sup>In simple terms, voters have two votes: one for a local area representative and the other for political parties at the national level. Parliament is therefore made up of both local area Members of Parliament and those drawn from national lists of representatives from different political parties, the proportion of which is determined by the national party vote.

<sup>3</sup>Traditionally linked to trade unions and other left-wing organizations.

In 1984, a new Labour government initiated major and controversial economic policy changes, called *Rogernomics* (named after the then-minister of finance, Sir Roger Douglas). These changes included devaluing the New Zealand dollar by 20%; immediately eliminating agricultural subsidies; implementing a monetary policy designed to reduce inflation from levels of around 18%; and removing controls on financial institutions, wages and prices, and capital flow in and out of the country.<sup>4</sup>

By 1990, the government had “transformed the economic policy framework from one of the most regulated in the OECD [Organisation for Economic Co-operation and Development] to one of the most deregulated” (James, 1999, p. 2). This restructuring and disinflation sought to promote economic efficiency by replacing producers in a protected domestic market with internationally competitive enterprises responsive to true international price and profit incentives. Some internationally competitive industries, such as forestry and paper, emerged. In the short term, however, whole sectors became less profitable, some relocated to such low-wage countries as Fiji, and unemployment rose from 2% in 1976 to a 11% in 1992. More recently, the unemployment rate has hovered around 5%.

Over the past several decades, the distribution of jobs has shifted considerably. As shown in Table 6.1, blue-collar jobs declined as white-collar work, which generally demands higher education and skill levels, rose. Several important industries have lost a significant number of jobs over the past few decades. For instance, manufacturing jobs declined from 24.2% of the workforce in 1956 to 16.3% in 1997. Construction jobs declined over the same period from 12.9% to 6.6%, and agriculture employment from 19.8% to 8.7%. However, jobs that require more education and higher skill levels have grown. For example, business and finance grew from 2.1% to 12.5% over the same period. The labor market is becoming more selective as boundaries between education and training, work, and retirement blur. Furthermore, these trends intensify with the shift to knowledge-dependent, information-based economies.

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<sup>4</sup>The downturn of the 1980s had a considerable impact on the literacy field's development because it led to a push to get the business community more involved in workforce literacy. This has been the primary focus of Workbase, which has sought to publicize the importance of workplace literacy and to develop appropriate workplace programs. Workbase has had some involvement in providing services, especially in pioneering innovative approaches. The number of other literacy providers offering services to workplaces—including some not-for-profits set up specifically to do this, some tertiary education institutions, and, increasingly, community-based providers that offer literacy as one component of their overall operations—has also grown.

TABLE 6.1  
Industrial Structure of the Labor Force  
in New Zealand (in percentages)

	1956*	1986	1991	1997
Agriculture	19.8	10.9	10.4	8.7
Mining	1.2	0.4	0.3	0.3
Manufacturing	24.2	21.3	16.8	16.3
Electricity	1.5	1.1	0.8	0.6
Construction	12.9	6.8	6.2	6.6
Wholesale/Retail	13.4	19.7	20.7	21.6
Transport	—	7.5	6.2	6.0
Finance/Business	2.1	8.3	11.8	12.5
Social	13.0	24.1	26.8	27.2

*Notes.* \*These figures were available for males only.

Sources: *The 1993 Official Yearbook, 1986 Census, 1993 household Labour Force Survey, 1997 Household Labour Force Survey*, published by the New Zealand Department of Labour.

The prevailing view in the early 1990s was that New Zealand had low economic growth because its workforce was underskilled by world standards, and New Zealand was not adequately prepared to compete effectively in the global marketplace. This assertion provided the impetus for a significant educational reform agenda, including the National Qualifications Framework (discussed on p. 170).

## Recent Social History

***Migrant and Refugee Issues.*** Migrants and refugees comprise 8% of New Zealand's population (Dalziel, 2000). In the last half century, New Zealand has accepted more than 20,000 refugees from troubled areas around the world, including Ethiopia, Somalia, Burundi, and Sudan. Numbers of refugees and countries of origin have varied over the years and included an influx of Hungarians after the revolution there in 1956 and Vietnamese after the war in Vietnam. According to the New Zealand Immigration Service, others fleeing persecution in their homelands include Chinese, Russian Jews, and Iranian Bahais. In addition to refugees, New Zealand attracts a substantial number of immigrants each year. In 1997–1998, 30,678 people were approved to migrate to New Zealand.

Except for Pakeha (non-Maori), people from South Pacific nations (usually referred to as Pasifika or Pacific people) have been the most numerous

and the most influential migrants to New Zealand.<sup>5</sup> They began migrating in the late 1950s and 1960s after being encouraged to help New Zealand meet its manual labour shortages. Currently, Pasifika make up 6% of New Zealand's total population. They consist of six primary ethnic groups: Samoan (50%), Cook Island Maori (22.5%), Tongan (16%), Niuean (8.5%), Fijian (2%), and Tokelauan (1%). Pasifika are highly urbanized: About two thirds live in Auckland, and another 14.5% live in Wellington (Fakahau, 1998).

Many migrants and refugees are not native speakers of English and enroll in English for speakers of other languages (ESOL) programs on arrival. In 1999, fewer than 25% of refugees to New Zealand had literacy skills in their own language, and 80% were beginners in English (Ministry of Education, 2000). Clearly, English literacy is an important issue for the migrant and refugee community. Ministry of Education research shows that Pasifika have very significant literacy and English language needs—the most significant of any demographic group in New Zealand (Fiske & Ladd, 2000, p. 30). About half of New Zealand's Pasifika over age 15 have some form of educational qualification (either recognized on the Qualifications Framework (see p. 170) or awarded by a school or an accredited educational institution). In 1997, the proportion of Pasifika leaving school without any educational qualification was 26%, compared to 18% for all students, and only 1 in 13 high school graduates of Pacific origin enrolled in a university. This gap is narrowing, and between 1990 and 1996, the number of Pasifika graduating from universities increased by over 200% (Anae, Anderson, Benseman, & Coxon, 2002).

The Pasifika unemployment rate is high (about 17%) compared to the national average of around 5%. Of Pasifika who are employed, about two thirds are in full-time jobs. Nearly 75% of Pasifika in New Zealand's workforce are in low-paying positions, including manual labor, service and production, and transportation—industries that are in some cases reducing the size of their workforces and increasing skill demands. Youth unemployment is the highest of any ethnic group in New Zealand, 33% for youth ages 15–19 (Fakahau, 1998).

Like Maori, Pasifika are relatively young compared to the rest of New Zealand's population, which suggests investing in educating them will have a longer term payoff. In 1996, Pacific men had a median age of 19.5 years, and women had a median age of 21 years. The median age of New

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<sup>5</sup> However, recent figures from Statistics New Zealand have shown that Asian residents now outnumber Pasifika.

Zealand's overall population was 32.3 years. In addition, the Pacific population is growing 11 times faster than any other population group and is expected to double by 2031 (Statistics New Zealand, 1998), making it increasingly important to find effective ways of closing the socioeconomic gaps—including the literacy gap—between Pasifika and other New Zealanders.

**Maori Issues.** An important ongoing debate in New Zealand society has centered on how to address the socioeconomic gap between New Zealand's indigenous people, the Maori,<sup>6</sup> and the non-Maori majority (known as Pakeha). The Treaty of Waitangi, considered the founding document of New Zealand, defines the Maori–Pakeha relationship. In 1840, the British Crown and many—but not all—Maori chiefs signed the treaty, which was controversial at the time and remains so today. At the heart of the controversy is the signing of two versions of the documents—English and Maori. Ostensibly, the two versions were translated identically, but there were important differences. For instance, the English version stipulated that the Maori chiefs gave up their sovereignty to the Queen of England, and the Maori version allowed the Queen to govern them but guaranteed Maori the right to self-determination (*tino rangatiratanga*).

Both versions of the treaty granted the Maori people the rights, privileges, and duties of English citizenship. The treaty also established a policy for land sales, guaranteeing the Maori the full, exclusive, and undisturbed possession of all of their land, forests, fisheries, and so forth for as long as they wished. If and when they decided to sell their land, however, both versions of the treaty gave the Crown the exclusive right to buy it so that it could, in turn, sell it to English settlers. In practice, the Maori were often denied the rights, privileges, and duties of English citizenship the treaty guaranteed. As the influx of European settlers increased in the mid-1800s, the Crown sought to extend its practical sovereignty, leading to tensions and a series of land wars with some Maori tribes in the 1860s and subsequent land confiscations. Maori feel a strong and spiritual connection to their land and had difficulty adjusting after that connection was broken. Government land policies were also more subtly directed toward creating strong incentives for Maori to sell their land, and many Maori have long considered these policies unjust.

After World War II ended, the Maori population quickly became urban as the Maori land base eroded and the demand for unskilled labor in the

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<sup>6</sup>Maori currently constitute approximately 15% of the total population.

cities increased. The exceedingly rapid urbanization caused adjustment difficulties for both those who stayed in rural areas and those who migrated to the towns. Like colonized indigenous people in other countries, Maori are overrepresented on most indicators of poverty, including educational achievement, income levels, unemployment rates, health, and housing. For instance, Maori leave school earlier and with fewer qualifications than Pakeha. In 1997, Maori completed an average of 4.1 years of secondary school, compared with 4.6 years for Pakeha.<sup>7</sup> The proportion of Maori leaving school with no qualifications was 38%, compared with 18% of all students (Fiske & Ladd, 2000, p. 30). Maori unemployment in 2000 was about double that for Pakeha—an improvement over 1999, when it was 2.5 times higher.

In a variety of guises, the government periodically attempts to rectify Maori/Pakeha inequalities. In February 2000, for example, Prime Minister Helen Clark stated that closing the socioeconomic gaps between Maori and non-Maori would be among her administration's top goals. She announced a new, high-powered Cabinet committee to "aim for higher employment, better health, better housing, and higher educational achievement among Maori" (Ministry of Maori Development, 2000, p. 1). This series of initiatives ran into considerable political opposition because it was seen as favoring Maori unfairly and the "closing the gaps" campaign ceased. However, the funding was retained within government budgets and has been used by the various departments for largely the same purposes in less prominent ways.

## NEW ZEALAND'S RECENT LITERACY MOVEMENT

Historically, New Zealand has taken pride in its literacy achievements for children.<sup>8</sup> Although some observers (Reid, 1994) have been less convinced of these achievements, comparative studies have generally shown New Zealand to be at least comparable with other Western countries.<sup>9</sup> For example, in the latest OECD study, the Program in International Stu-

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<sup>7</sup>Secondary school has a maximum of 5 years attendance.

<sup>8</sup>Based on international comparative research, the work of educators like Marie Clay and Sylvia Ashton-Warner, and the publishers Learning Media and Wendy Pye.

<sup>9</sup>New Zealand data for these studies is distinctive in having what is termed a long "brown tail"—Pakeha children score consistently among the best in the world, but Maori and Pasifika are well below this level, resulting in a lower average rating overall.



dent Assessment (PISA), New Zealand's average scores in reading and in mathematical and scientific literacy were among the six best among 32 countries, and it had the highest proportion of its students (19%, compared with the average of 10%) at the highest reading literacy proficiency level (Ministry of Education, 2002). The report also notes widely spread scores across all three types of literacy nationally and within schools, confirming Reid's observation that New Zealand's children perform particularly well at the top end of the spectrum, but there is another large group at the bottom end. This tends to be obscured when examined in terms of national averages.

The discrepancy between children's and adults' literacy scores in these studies (OECD, 1997) is greatest for New Zealand. This mismatch may partly help explain why government officials and politicians were slow to accept adult literacy as an issue for New Zealand and why the issue has received little recognition and few resources until recently. In other words, because children's literacy was not seen as a problem, the government assumed that older adults—whom they viewed as being these children, only older—did not have a problem.

### Early Literacy Efforts

Unlike the United States, where adult literacy has been an acknowledged issue for a much longer period (Sticht, 2002), New Zealand traces its modern adult literacy movement only to the early 1970s.<sup>10</sup> In 1974, a local minister's wife—Rosalie Somerville, who had been teaching several parishioners with reading difficulties—started the Hawkes Bay New Reader's Programme. She persuaded Massey University's Extension Department to run two training courses, resulting in 17 trained literacy tutors in Hawkes Bay, and the first community literacy program began in earnest.

Interest in literacy grew, and in 1975 the National Council of Adult Education (NCAE) and the New Zealand Council for Educational Research publicized an estimate that between 50,000 and 100,000 adults read at a lower level than a typical 10-year-old.<sup>11</sup> The Logan Campbell Trust gave Mary Clay, a University of Auckland professor, a \$NZ 2,000 grant to start a community-based adult literacy program. Then, in 1976, with the help of a grant from the Department of Education and UNESCO, NCAE ran the

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<sup>10</sup>This section is drawn primarily from *The Fragile Web* (Hill, 1992) and *The Fourth Sector* (Benseman, Findsen, & Scott, 1996).

<sup>11</sup>As has happened in other countries (Limage, 1990), these figures were essentially pulled out of a hat to have some form of proof of the issue.

first national seminar on literacy, *Assisting Adults with Reading Problems*, in Levin. The national government's Minister of Education set up a Literacy Project Working Party to define the issue and suggest an action plan. Unfortunately, the group spent most of its time trying to define literacy, and little came of the discussions. Additional student-oriented, free, and confidential programs were established. Like the British model (several New Zealanders had visited British programs), most programs decided to seek one full-time staff member for each 35 students. The McKenzie Education Foundation provided a 3-year grant totalling \$NZ 30,000 to pay the salary of an NCAE adult reading assistance officer, with the understanding that the government would continue funding the position when the grant expired in 1981. The officer's role was to develop a national network of volunteer literacy programs and in particular to train volunteer tutors, who were the mainstay of provision in these early years.

In 1979, the Department of Education made money available to Hawkes Bay Community College to employ Rosalie Somerville as a full-time organizer of the reading program. An NCAE Adult Reading Advisory Committee survey found at that time:

- 59 volunteer literacy programs throughout the country had helped a total of 2,078 students since their inception.
- More than half the students were under age 25.
- 92% of students spoke English.
- 217 people were on waiting lists to get into the programs. (Hill, 1990)

The government, under a new Minister of Education, was unwilling to provide additional literacy funding, so the NCAE and volunteer literacy programs launched a publicity campaign designed to generate support for government funding. This included a letter-writing campaign to the Minister of Education and Members of Parliament (MP), and student and tutor visits to their offices. Many MPs expressed surprise on learning that literacy was an issue in their districts.

In the early 1980s, the Labour Party included adult literacy as part of its educational policy package. Russell Marshall, the Labour shadow minister of education, called adult literacy a hidden problem and promised the Labour Party's support for extra funding, giving the adult literacy field hope that its status would improve. The subsequent election of a Labour government in 1984, therefore, "appeared to signal a new era of hope for adult and community education" (Benseman, 1996, pp. 5–6).

New Zealand began forming a literacy federation in 1981. Some of the community literacy programs were initially reluctant to develop a national organization, fearing it might destroy the local programs' volunteer spirit. Others welcomed the organization, hoping it would have an impact on government and serve as a resource for the field. In 1982, the Adult Reading and Learning Assistance (ARLA) Federation registered as an incorporated society and received a \$NZ 10,000 government grant.

By 1989, the ARLA Federation's annual grant from the central government<sup>12</sup> had increased to \$NZ 400,000. These funds created a network of paid coordinators and progress toward bicultural development<sup>13</sup> within programs. The government's general recognition of the local programs' work and concern about increased unemployment helped lead to the increase.

The workplace literacy of workers was probably key to keeping adult literacy on politicians' agendas, although this caused disquiet among some sectors of the field. Some literacy practitioners felt workplace concerns became dominant, but community-based provision survived this period reasonably well because of the political interest in workforce skills.

Therefore, although the 1990s began rather bleakly for most education outside the formal institutions in terms of funding and policy recognition, the decade—particularly its second half—proved significant for adult literacy education. In 1996, Workbase, a new literacy organization that had grown out of a development project started in the International Literacy Year in 1990, split off from ARLA and became an independent not-for-profit organization responsible for workplace literacy initiatives. ARLA has since been renamed Literacy Aotearoa and is the major provider of literacy programs, along with Skill New Zealand (a Crown Agency that assists learners and industry throughout the country), prisons, and a range of smaller private and community-based providers.

### Measuring Adult Literacy Skill Levels

Until 1997, little was known about New Zealand's adult literacy rate. That year proved a turning point when the Organisation for Economic Co-operation and Development (OECD) published the International Adult Literacy Survey (IALS) results in *Literacy Skills for the Knowledge Society*

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<sup>12</sup>Virtually all education in New Zealand is funded by a central government; local government has no role in this respect, and there are very few philanthropic bodies involved as funders.

<sup>13</sup>Based on an equal partnership between Maori and Pakeha, as set out in the original Treaty of Waitangi.

TABLE 6.2  
Skills of Adults at IALS Level 1

<i>Could Usually Perform</i>	<i>Could Not Usually Perform</i>
<ul style="list-style-type: none"> <li>• Sign one's name</li> <li>• Identify a country in a short article</li> <li>• Locate one piece of information in a sports article</li> <li>• Locate the expiration date information on a driver's license</li> <li>• Total a bank deposit</li> </ul>	<ul style="list-style-type: none"> <li>• Locate eligibility from a table of employee benefits</li> <li>• Locate an intersection on a street map</li> <li>• Locate two pieces of information in a sports article</li> <li>• Calculate total costs of purchase from an order form</li> </ul>

(OECD, 1997). IALS was the first-ever national assessment of adult literacy skills in New Zealand<sup>14</sup> and built on the OECD's studies of seven other countries presented 2 years earlier. The National Research Bureau, under contract with the Ministry of Education, undertook the IALS survey in New Zealand. The IALS examined literacy across three domains, and a person could be at different levels of each domain:

- Prose literacy: the ability to understand and use information from texts such as fiction and newspapers.
- Document literacy: the ability to locate and use information from timetables, graphs, charts, and forms.
- Quantitative literacy: the ability to use numbers in context, such as balancing a checkbook or calculating a tip.

The IALS scaled literacy tasks by difficulty from 0–500 points. Rather than arbitrarily setting a point on the scale to divide the “literate” from “illiterate,” the scale was divided into five broad literacy levels for each domain, with Level 1 being the lowest and Level 5 the highest. Adults at Level 1 generally have significant difficulty handling even the most basic printed materials. Table 6.2 gives examples of the types of activities that adults at Level 1 can and cannot generally do.

<sup>14</sup>A current review of research about New Zealand adult literacy has identified only a very small number of studies (Benseman, 2002a). The research is dominated by one-off program evaluations, and most are small-scale studies, making it difficult to generalize beyond specific contexts in which they were conducted. Postgraduate students carried out a large proportion of the studies for master's theses and the studies are of variable quality. Most studies were done with minimal funding, which has undoubtedly influenced both the quality and size of the research.

In keeping with contemporary definitions of literacy that include being able to use information effectively, the survey assessed people's ability to use specific skills. It covered a wide range of literacy activities that people encounter in their daily lives, such as reading a timetable, interpreting information from tables and charts, and reading instructions from a medicine bottle. For instance, one survey item asked respondents to use a medicine label to determine "the maximum number of days that you should take the medicine," requiring them to locate the phrase "not longer than seven days." Other questions were based on using a bike manual, a pamphlet about a job interview, a photocopy order form, and a weather chart. The IALS tested for reading comprehension, critical thinking, and numeracy skills, but not writing.

A random sample of 4,223 New Zealand adults aged 16 to 65 took part in the survey. The OECD found that there are "significant literacy skill gaps in every country . . . at least one quarter of the adult population of the countries surveyed fails to reach the minimum level of competence needed to cope adequately with the complex demands of everyday life and work" (OECD, 1997, p. 3). Findings in New Zealand matched this general conclusion, with almost half the adults surveyed scoring below the minimum level of competence (Level 3) in all three domains. Twenty percent of adults (about 200,000) were at Level 1, meaning they have difficulty functioning at the level necessary in everyday life and work. Another 800,000 were at Level 2. Proportionally, the numbers of adults at Levels 1 and 2 are almost identical to the United States and Australia.<sup>15</sup>

Figure 6.1 shows the number of adults at Levels 1 and 2 in each country. As the IALS rates Level 3 as the minimum level of competence, Levels 1 and 2 can be considered the number of adults with literacy needs. The figure shows that this amounts to about half the adult population in most of the countries surveyed, including New Zealand.

Almost one fifth (18%) of New Zealand's adults scored at the lowest level of the prose domain. This is about the same as Australia (17%), the United Kingdom (22%), and the United States (21%). Figure 6.2 shows the number of adults at each literacy level in each country.

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<sup>15</sup>Princeton University's Educational Testing Service designed the IALS methodology, which employed a sophisticated testing and scaling method. The sample was stratified by geographic region and population size with meshblocks (smaller regions) randomly selected within the meshblock. Households were randomly selected within the meshblock. One person was selected per household. There was a 74% response rate, and data weighting adjusted for most bias associated with differential nonresponse.

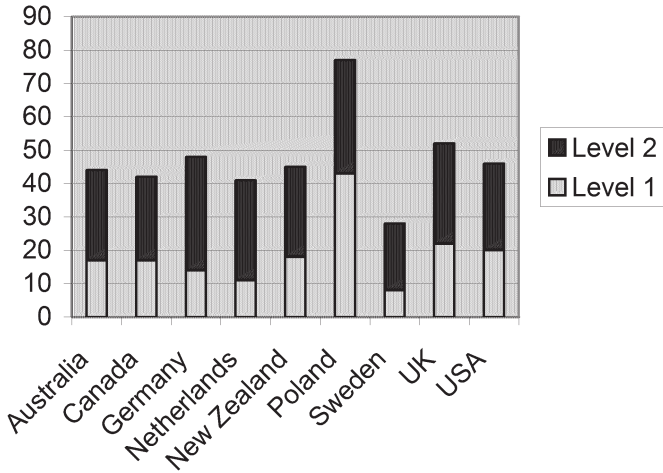


FIG. 6.1. Percent of adults with lowest literacy skills.

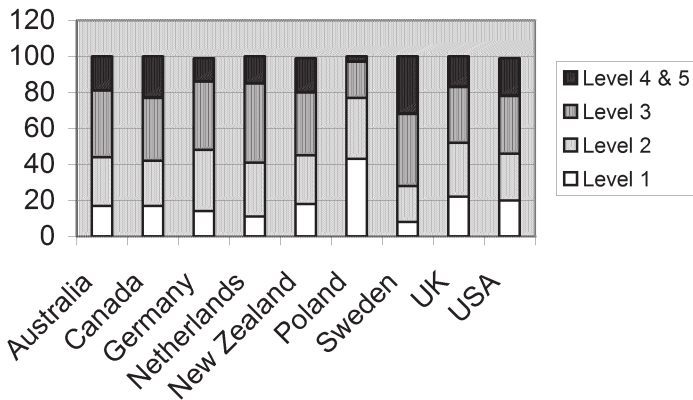


FIG. 6.2. Percent of adults at each literacy level.

Contrary to popular opinion in many countries, the IALS found that literacy was an issue across many segments of the population in all the countries surveyed. It stated, "Low skills are found not just among marginalized groups, but among significant proportions of adult populations in the countries surveyed" (OECD, 1997, p. 18). Low literacy was not limited to any one ethnic group, although some groups were represented disproportionately in the lower levels. In New Zealand, the literacy breakdown by ethnicity is shown in Fig. 6.3.

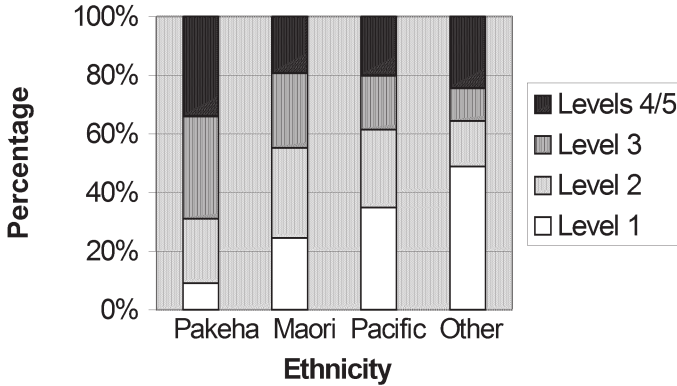


FIG. 6.3. Literacy levels by ethnicity (Johnson, 2000).

Although the IALS measured English literacy skills, 10% of respondents in New Zealand had a first language other than English, including Maori and Pacific languages. English is New Zealand’s primary language,<sup>16</sup> so adults without adequate English literacy skills face difficulties communicating in daily life.

Who are these adults with literacy needs? Not surprisingly, the IALS found that adults with less formal schooling have lower skills. Nearly 75% of adults who had not gone beyond primary school were at Level 1 in each domain. Overall, Pasifika, Maori, and non-native English speakers (including migrants and refugees), people with low levels of schooling, unemployed and low-skilled workers, older adults, and low-income people generally had greater literacy needs than the rest of the population. Maori performed an average of 35 points lower than non-Maori on the survey’s 500-point scale. This translates to the difference between a Level 2 and a Level 3—a significant difference, because Level 3 is considered the minimum necessary for effective functioning in daily life and work. These differences disappear, however, when controlled for educational levels—Maori and Pakeha with the same educational levels performed at the same level in the IALS. Pacific scores were lower again, especially for women (only 18% of Pacific females were in higher levels, compared to 42% of Pacific men). According to the OECD, “Higher levels of literacy are needed now more than any time in the past. And the demand for literacy in the future can only increase” (p. 11). The IALS report concludes,

<sup>16</sup>Maori is recognized as New Zealand’s other official language but is not widely spoken, especially by non-Maori.

“Literacy is strongly associated with economic life chances and well-being. It affects . . . employment stability, the incidence of unemployment, and income” (OECD, 1997, p. 17).

### **Literacy Needs in the Workplace**

Both employers and government agencies are increasingly recognizing literacy as a problem in New Zealand. For instance, a 1993 Workbase survey of 17 companies (with more than 300 respondents) found that 21 of 26 human resource managers said more was being demanded of employees than 2 to 3 years earlier (Moore & Benseman, 1993). Skill New Zealand notes:

There has been ongoing commentary from employers about the poor basic skills of new recruits and existing employees. Often these issues emerge when an enterprise faces restructuring or introducing new technology. Industry Training Organisations have identified poor basic literacy skills as posing a barrier to the achievement of workplace skills and qualifications. (Skill New Zealand, 2000, p. 5)

Certainly this is the case in New Zealand. People with better literacy are more likely to be employed, have higher incomes, and receive further training. Seventy percent of unemployed New Zealanders are below Level 3 in all three domains, compared with about 40% of employed adults.

If not addressed, the problem could be exacerbated in coming years. Nearly half (48%) of unemployed 16- to 25-year-olds in New Zealand are at Level 1 of the prose literacy scale. This compares to 12% of those who are employed. Many of this group will be in the workforce for the next 40 to 50 years.

The IALS found that three broad industry groups in New Zealand—manufacturing, construction, and agriculture—have the most literacy needs (defined as having the highest percentage of workers at Levels 1 and 2). Table 6.3 provides a breakdown of literacy levels by industry sector.

Recognizing the importance of increasing its investment in education and training in making the economy more competitive, the New Zealand government initiated an array of major policy reforms in the early 1990s. The National Qualifications Framework (NQF), the cornerstone of these reforms, is a system that provides individuals with nationally recognized and portable credentials that reflect attainment of knowledge and skills. A government agency, the New Zealand Qualifications Authority (NZQA, or QA), oversees the NQF system. New Zealand does not have a high



TABLE 6.3  
Literacy Skills by Industry Sector in New Zealand  
(in percentages)

	<i>Level 1 (low)</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Levels 4 &amp; 5</i>
Agriculture	14	33	37	16
Mining	25	17	42	17
Manufacturing	17	32	32	18
Electricity	7	29	36	29
Construction	13	36	38	13
Wholesale/Retail	8	29	44	20
Transport	12	21	50	17
Finance/Business	3	14	43	39
Social	6	18	39	38

*Note.* Source: Workbase, 1999.

school equivalency credential like the certificate of General Educational Development (GED), so the NQF certificates provide credentials for adult literacy programs, representing an assessment of skills and knowledge.

The NQF has eight levels representing increasing complexity and difficulty. For instance, NQF Level 1 designates entry-level education and training, and includes learning up to the complexity of a Year 11 equivalent at high school. At the top, NQF Level 8 includes postgraduate study. Each registered standard (also called a *unit standard*) is assigned to one of these eight levels. More than 13,000 standards have been registered in subjects ranging from forestry to history to office systems. As learners achieve outcomes, stipulated in the registered standards, these are listed on their individual "Record of Learning." Each registered standard also has a credit value. Learners are awarded qualifications at different levels after they acquire the stipulated unit standards for that qualification (more than 500 Framework qualifications are registered).

When first conceived, the NQF sought to ensure that skills learned in a variety of settings (e.g., schools, tertiary institutions, workplaces) would be recognized equally. The NQF has made qualifications more transferable, transparent, and explicit about learning that has occurred. Its proponents credit it with giving people greater assurance about the quality of their credentials, and making it easier for employers to understand links between different qualifications. Vocational providers—including polytechnics, Industry Training Organisations (ITOs), workplace education

and training programs, and private training establishments (PTEs)—have generally adopted the framework more extensively than universities. In practice, however, some of the tertiary sector (especially universities and adult and community education providers) have stayed completely outside the NQF because they see their primary goal as assisting students, not employers. This position has resulted in the tertiary institutions accepting the framework to varying degrees.

Therefore, at the moment, the NQF seems to be a better indicator of skills acquired through vocational training than across all forms of education and training. In particular, the NQF is not easily accessible to people with literacy needs. Although the NQF Level 1 contains a series of communication unit standards designed for both first- and second-language speakers of English, the level of competence these standards require varies greatly. Many of these standards require completion of specific but often unrelated tasks, rather than reflecting the more complex integration of reading, writing, speaking, and listening skills necessary to function in daily life.

The Industry Training Strategy, a major legislative initiative designed to increase the skills of the workforce, was another important element of the reforms. The Industry Training Act of 1992 launched an industry-led effort to improve the quantity and quality of training tied to national standards, explicitly including workers traditionally underrepresented in workforce training, such as Maori, Pasifika, and women.

### **The Effect of IALS in New Zealand**

There is little doubt that governmental and ministerial interest in adult literacy increased significantly following the publication of the IALS. Until the early 1990s, New Zealand was still officially reporting to UNESCO and the OECD that it had no illiteracy (Watson, 1999). Apart from one article published in a national education newspaper some time after the publication of the results, IALS results were widely accepted as a valid measure of literacy skills (Elley, 1999). Today, largely as a result of the IALS findings, New Zealand has laid the groundwork to significantly improve adult literacy, although much is still to be achieved if it is to match top-performing Scandinavian countries. One specific effect of the IALS is that, for the first time, adult literacy is starting to be seen as integral to a range of other issues. Adult literacy historically has been synonymous with a group of low-educated social casualties. IALS was instrumental in showing that literacy difficulties are not confined to this stereotyped group

and can be found to varying degrees among all social groups, including those in high-status occupations.

The 1997 publication of New Zealand's IALS findings prompted considerable debate in public media and within key educational bodies such as the Ministry of Education, which created a new senior position of chief advisor in adult literacy in 2001. Since the election of the Labour government in 1999, optimism around adult literacy has been renewed.

The new government's Tertiary Education Strategy recognizes foundation skills as an issue for all levels of postsecondary education, not just for those at the bottom levels. A series of review documents have been the forerunners to a large-scale overhaul of all postsecondary education. These include four documents published by the government-appointed Tertiary Education Advisory Commission: *Shaping a Vision* (TEAC, 2000), *Shaping the System* (TEAC, 2001c), *Shaping the Strategy* (TEAC, 2001b), and *Shaping the Funding Framework* (TEAC, 2001a). The Ministry of Education (2002) has since published a Tertiary Education Strategy, the first of its kind for New Zealand.

In addition to these reports, there has been a review of adult and community education<sup>17</sup> and an adult literacy strategy—both of which are also the first reports in these areas accepted by a government in power.<sup>18</sup> The Ministry of Education's strategy,<sup>19</sup> known as *More Than Words* (Ministry of Education, 2001a), announced by Minister of Education Trevor Mallard in May 2001, says that, long-term, all New Zealanders should enjoy a literacy level that enables them to participate fully in all aspects of life, including work, family, and the community, and have the opportunity to achieve literacy in both English and Maori. The short-term focus is on building quality systems and improving the capability of the adult literacy sector. The 28-page document outlines the government's aims for the field's development in the medium term and effectively is the planning blueprint for the work of the newly appointed chief adviser in adult literacy and several additional appointments expected over the next 2 years.

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<sup>17</sup>Adult and community education refers to noncredit educational services for adults (usually based in the community, rather than formal institutions), which sometimes includes adult literacy provision. Adult literacy is provided by a wide range of postschool organizations; some tuition is part of a larger educational program (e.g., trade training), and others (e.g., Literacy Aotearoa) are adult literacy-specific organizations.

<sup>18</sup>Reports were written for adult and community education in the past, but governments of the time never accepted them.

<sup>19</sup>The Ministry of Education official who wrote the document chose the word "strategy" rather than "policy" because he thought it would appear more practical and therefore have a greater chance of being implemented (personal communication).

The strategy is built heavily around the results of the New Zealand IALS (a seven-page appendix details the study's results). After providing a justification for government involvement in adult literacy, the strategy states three aims:

- Raise levels of the current adult population who are “below the bar” of literacy adequacy.
- Invest in the current working-age population who have adequate literacy, to ensure that over time they remain literate as new technologies and work practices increase the literacy demands in their workplaces.
- Ensure that school leavers have adequate literacy so that those entering the workforce and adulthood are not in need of remedial literacy education. (Ministry of Education, 2001a)

The remainder of the report describes three key strategies to achieve these aims: increasing the opportunities for literacy learning, developing the capability of providers, and improving the quality of literacy services. The commitment to develop organizational structures and provisions is in keeping with the Treaty of Waitangi's bicultural spirit. As shown earlier, Maori are still overrepresented in most negative social and educational statistics, including a low level of adult literacy. In keeping with the treaty, providers (especially Literacy Aotearoa) have debated how to structure their organizations, allocate resources, organize services, and determine skills taught to achieve more equitable outcomes for Maori. These debates have continued for more than a decade and have been acrimonious at times. The net result, however, has been a greatly heightened awareness of Maori adult literacy needs, considerable autonomy for Maori to operate in ways they consider culturally and politically appropriate, and a distinctive bicultural flavor to most aspects of the field that is probably unique to New Zealand.<sup>20</sup>

The report *More Than Words* (Ministry of Education, 2001b) clearly identifies the Ministry of Education as a central source of the field's funding, but it also stresses the need for the increased involvement of other government bodies, workplaces, tertiary education providers, iwi (tribes), community groups, and other key stakeholders. Although this call for involvement from nongovernment funding sources can be interpreted as a New Right-like move to minimize the state's involvement, it can also be

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<sup>20</sup>It is certainly the element most commented on by overseas visitors.

seen as indicative of a move toward lifelong learning involving multiple agencies in providing learning opportunities.

All of these documents refer to the concept of lifelong learning generally and adult literacy specifically (Benseman, 2002b); “raising foundation skills” is also one of the six key strategies the Tertiary Education Strategy identified. The current Labour government has stated that implementing the changes recommended in these reports will be the main focus of its educational initiatives for its next 3 years of office.

## POLICY RECOMMENDATIONS

In addition to the elements identified in the government strategy, policy-makers must address five key obstacles to meet the adult literacy challenge that the IALS identified (Johnson, 2000):

- Lack of a strong and coordinated adult literacy infrastructure.
- Limited data on outcomes and accountability measures.
- Historical marginalization of literacy in key policy frameworks (as noted previously, this is just beginning to change).
- Few professional development opportunities for teachers.
- Inadequate funding.

### **Recommendation #1: Establish a clearly coordinated system of school, community, and workplace providers who share the goal of improving literacy.**

The absence of any overarching national structure or system has left the adult literacy field fragmented, underfunded, and without the capacity to address the adult literacy needs demonstrated by the IALS. Lack of consensus between literacy practitioners and government officials on what literacy is, why it is important, and how to best address it, may have contributed to the problem.

Various government departments have initiated a number of responses to literacy over the years, but they have varied in terms of both the definition of literacy and the type of response, and have not reflected an understanding of the depth or complexity of the issue, according to interviews with numerous literacy professionals (Johnson, 2000). Most have focused on short-term courses designed to quickly lift literacy levels (Literacy

Aotearoa, 2000). Many initiatives have focused on only one strand of literacy—such as workplace literacy only or community literacy only—at the expense of the other strands, thus exacerbating tensions in the field and reducing collaboration.

Similar obstacles exist at the organizational level. The two key national organizations, Literacy Aotearoa and Workbase, differ in terms of philosophy and approach, which manifests itself in their separate lobbying of government over priorities and long-term goals. This is not surprising, as Literacy Aotearoa's focus on community-based programs and Workbase's focus on workplace literacy result in different understandings of what literacy is, why it is important, and how best to assist adults in achieving their literacy goals. Finding areas of agreement is the next step in improving coordination and collaboration and ultimately building a comprehensive adult literacy infrastructure.

Some collaboration is occurring, however, at the local level between, for example, Literacy Aotearoa programs, local Maori organizations, and private providers in some towns. In Christchurch, the Canterbury Adult Basic Education Network includes practitioners, researchers, and tutors. The members have a wide range of interests and involvement in literacy, including vocational literacy, family literacy, the literacy needs of those with mental health problems, the use of computer technology for teaching literacy, and the effects of illness/abuse on literacy learning in childhood. The network meets regularly and has produced a directory of local providers. It is currently conducting a longitudinal research study of participants in adult literacy classes that explores factors that prevented adults from acquiring the skills they needed in school and what triggered a desire to start learning again.

A related issue is the lack of coordination and collaboration among and within government agencies. A number of government ministers have adult literacy responsibilities in their portfolios. Like the literacy field itself, they seem to define literacy differently. For instance, one Associate Minister of Education responsible for community issues sees literacy primarily as a community education issue.<sup>21</sup> On the other hand, another Associate Minister of Education, who is responsible for industry training, is most concerned with how it affects industry and has more interest in workplace literacy issues. Others with an interest and central roles to play are the Minister of Education and Minister of Maori Affairs/Asso-

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<sup>21</sup> Observations about both Ministers are based on personal conversations with them and key Ministry advisors.

ciate Minister of Education. Although having multiple ministers with an interest in adult literacy is in some ways a strength, in other ways it leads to fragmentation. With the formation of the Tertiary Education Commission (TEC)<sup>22</sup> in early 2003, the situation may become even less clear. The newly formed Interdepartmental Committee on Adult Literacy (IDCAL) will have an important role, as will that of chief adult literacy adviser in the Ministry of Education.

Finally, any new infrastructure should include community, vocational, and family literacy. New Zealand is world-renowned for its innovations in children's reading, but it has yet to develop a family literacy system. This is about to change, however, as a feasibility study was funded in South Auckland, following a visit by Bonnie Lash Freeman of the National Center for Family Literacy, and in November 2002, an additional Ministry of Education grant of \$NZ 300,000 to develop programs was announced. Family literacy in particular has the potential to help the lowest level readers in schools, and, if it proves effective in New Zealand, it would represent a significant development in breaking down age barriers characteristic of a traditional educational system.

### **Recommendation #2: Develop a system for measuring literacy achievement.**

Before informed adult literacy policy and funding decisions can be made, two key questions need to be answered: What is the impact of adult literacy programs to date, and how are these results related to what happens in the programs? A national coordinated system for literacy needs to both monitor and evaluate student achievement so that program and policy refinements are based on reliable information about what is working and what is not. This is a "chicken and egg" issue. Many providers are so financially strapped that they need additional funding to implement systems for tracking outcomes; the government, on the other hand, needs demonstrated outcomes to justify increasing providers' funding levels.

Providers, funders, and the government need data on literacy program outcomes, and adult literacy programs have no single set of national outcomes against which to assess their performance. Specifically, information is needed on how long participants stay in adult literacy programs; how much they learn; whether or not they go on to further education or training;

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<sup>22</sup>The body developed to implement the recommendations of the Tertiary Education Advisory Commission.

and, most importantly, whether they are better able to cope with the print they encounter in daily life after participating in an adult literacy program.

New Zealand also needs to develop a nationally consistent way of reporting adult literacy gains. Unit standards on the National Qualifications Framework (NQF) may be used as a limited proxy measure of literacy, but they are usually task-based and do not offer a coherent construct of literacy. There is no common language for learners, providers, and purchasers of literacy programs to use in describing literacy gains, and no way for government or other funding bodies to know whether investment in adult literacy is increasing skill levels in the adult population.

A potentially important step occurred recently when the Ministry of Education commissioned literacy experts Liz Moore and Alison Sutton to develop and pilot a National Reporting Framework (NRF) project. The NRF, which is now under development, consists of a number of profiles containing descriptors of literacy behaviors, skills, and knowledge. As learners increase their range of reading and/or writing skills and demonstrate increasing control over language, they also display greater independence in reading or producing increasingly complex texts. As it is envisioned, tutors and learners will use a variety of assessment methods and interpret the assessment information to judge which literacy profile best describes the learner's literacy capability at a given time. Providers will collate the results of this process to track progress over time. The pilot of the NRF will provide information about the most useful ways of collecting information and reporting it to the various audiences. Other countries—such as Australia, the United States, and the United Kingdom—have introduced a similar system, with the accompanying professional development of tutors and, in some cases, the development of standard curricula. It is too soon to know the extent to which these will be adopted in New Zealand. However, the NRF will not provide information about the return on investment in adult literacy education for some years, until the field is ready to widely incorporate the NRF into provider reporting.

Another positive step toward a system for measuring literacy achievement occurred when Literacy Aotearoa recently developed quality assurance standards for community-based providers, and the Ministry of Education commissioned the development and piloting of a quality standard for vocational providers in 2000–2001. Providers seeking to achieve the standard must show evidence of five best-practice indicators in their programs:

- Providers use adult-specific initial assessment tools on program entry.



- The needs analysis forms the basis of learning plans, goals, and teaching and learning.
- Learners have individual learning plans.
- Programs use quality adult teaching and learning methods, and staff are appropriately qualified.
- Providers have processes for ongoing assessment and reporting. (Literacy Aotearoa, 2000)

Literacy providers will verify that these indicators are met through an audit process.

Finally, key adult literacy stakeholders are in the process of negotiating with the Ministry of Education and NZQA to determine how the adult literacy standards should be extended to literacy providers in other contexts and who should award it. Standards should apply to all programs, not just those offering qualifications, so that all learners have the opportunity to attend high quality programs and no “creaming” (i.e., admitting only students most likely to succeed) occurs. Otherwise, the founding ethos of adult literacy in New Zealand demonstrated by Rosalie Somerville and the other original Hawkes Bay volunteer tutors<sup>23</sup>—voluntary attendance and a learner focus—will be lost.

**Recommendation #3: Recognize the role of literacy in advancing the goals of other sectors and adopt policies promoting literacy throughout all social service and education sectors, including the National Qualifications Framework (NQF).**

All social service and education sectors, including health and labor, need to recognize literacy’s role in helping to solve other problems. Much adult literacy instruction occurs incidentally as a byproduct of achieving other objectives within the Training Opportunities and Youth Training programs and the Industry Training Strategy, for example. Other policy initiatives that should explicitly incorporate literacy as a viable part of their efforts are the Tertiary Education Commission’s work plan, the Modern Apprenticeship Program (aimed at increasing the number of young people in apprenticeships), the Children’s Literacy Initiative (aimed at further

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<sup>23</sup>For more information on the volunteer leadership and learner focus of New Zealand’s early adult literacy movement, see Hill (1992).

improving literacy in schools), and the National Qualifications Framework (NQF).

Although most vocational literacy providers accepted the NQF from the outset, many community-based literacy providers initially resisted it because they felt it was inconsistent with a learner-centered philosophy and primarily aimed at employer requirements. Earning qualifications is not usually the central purpose of community-based adult literacy programs, but many now assist students in earning NQF qualifications, in part because some funding streams are linked to programs offering NQF-related provision. This has ramifications for adult literacy because the curriculum in many programs is closely tied to unit standards, and funding depends on students acquiring these standards. According to Workbase, “these unit standards . . . often limit what is offered in learning programs, especially where funding is tied to unit standards based programmes” (Workbase, 1999, p. 6). Both government and private funders usually require learners in literacy programs to acquire a certain number of credit hours per week. This is not always possible for providers working with adults at the lowest skill level, and therefore has troubling implications for these programs’ future funding.

#### **Recommendation #4: Increase professional development opportunities and working conditions for adult literacy practitioners.**

Although no one knows the precise numbers of full-time, part-time, and volunteer instructors, it is clear that there are few full-time jobs available for adult literacy professionals and that New Zealand does not yet have a cadre of experienced adult literacy specialists. Low pay, low status, and short-term and unpredictable funding streams mean educators have little incentive to enter the adult literacy field and undertake professional education beyond an introductory level.

The number of informal professional development opportunities—seminars, workshops, and conferences—is increasing, but there are few opportunities for literacy practitioners in New Zealand to gain higher level formal qualifications. A series of NQF unit standards have been written for adult literacy educators, and a number of providers are planning qualifications using these standards, so there are positive developments in this direction, but it will take some time for these qualifications to have an impact. Several universities are planning courses in literacy and language with an adult literacy stream, but they are unlikely to come

to fruition until 2004 because of the lead time necessary to establish these qualifications.

Because paid jobs in adult literacy are so few, most community-based literacy programs rely heavily on volunteers. Within the literacy field, there is a sense of an important role for volunteers in adult literacy, particularly working with adults in one-on-one settings, but there is also an understanding that volunteers are not a substitute for full-time professional staff. Case studies, a literature review, and interviews conducted for *Changing Skills for a Changing World: Recommendations for Adult Literacy in Aotearoa/New Zealand* (Johnson, 2000) found a range of quality in literacy tutoring, and noted that programs spend great amounts of funding and time on volunteer training. According to Literacy Aotearoa, “Retention of personnel, both volunteer and paid or part-time, is difficult when they are offered employment elsewhere. Economics dictate that people take on employment when and where they can” (Literacy Aotearoa, 2000).

The Maori tutors interviewed for *Changing Skills for a Changing World: Recommendations for Adult Literacy Policy in Aotearoa/New Zealand* raised related issues. They described a general consensus among Maori that many Maori learners prefer Maori tutors and there is a shortage of Maori tutors relative to the Maori community’s literacy needs. Informal feedback from interviews indicates that approximately half of Maori students who are told they will have a non-Maori tutor do not return after an initial interview. Concern was also expressed that adult literacy programs could provide better tutor training to encourage more Maori to become tutors. Literacy Aotearoa offers an example of Maori tutor training that works well; in addition to the standard model of training done for several nights a week for several hours, Literacy Aotearoa trains tutors over a weekend on a marae (traditional Maori meeting house), using a distinctive Maori way of learning.

**Recommendation #5: Provide funding commensurate with the adult literacy need and include special funding streams for different literacy sectors.**

Historically, adult literacy has received scant government attention and funding. Despite recent funding gains, adult literacy currently receives less than 1% of the annual Vote Education budget. Prior to 1996, adult literacy received about 25% less annual funding than it does now. Unlike

the United States, New Zealand does not have a large philanthropic community, so it is even more important that the government play a role.

Low funding prevents the adult literacy sector from meeting the demand for its services. According to IALS (OECD, 1997) data, only about 17,000 adults with pressing literacy needs participate in literacy courses annually. Many get only 1 to 2 hours of services per week because of limited funding.

A history of inadequate government funding for adult literacy has exacerbated the tension between the community- and workplace-based sectors. As workplace-based programs have emerged in recent years, some community-based programs have felt threatened. With such a large need for literacy services, both community-based and workplace programs are essential. Their motives and philosophies may vary, but both have distinct strengths and are necessary components of an integrated, comprehensive adult literacy system.

Given the tensions between sectors of the field, funding should be restructured in a way that does not force organizations to compete. One way to achieve this would be to set up several funding streams for adult literacy that are linked to providers' proven effectiveness. For example, there could be one funding stream for community-based organizations (perhaps with a special stream for ESOL), another for workplace literacy, another for family literacy, another for Maori-focused programs, and so forth.

## CONCLUSION

Adult literacy in New Zealand has developed in just 30 years from a marginal, low-status, poorly funded enterprise that depended on the goodwill of a band of dedicated volunteers to a more visible, diverse, and vibrant sector of educational provision for adults—although it clearly also has some way to go compared with other educational sectors. This transition has often been slow, spasmodic, and fraught with difficulties but has culminated in adult literacy being increasingly accepted as an integral part of the current educational system—with an increasingly prominent role in terms of both education policy and funding. Although there is a generally cautious feeling of having arrived, much remains to be done. There is still a significant gap between the assessed degree of need and actual provision of services. Policymakers have a key role to play and, in recent years, the government has stepped up to the plate with major funding increases designed, in part, to close this gap. Finally, there is a desperate need for an

information base from research and other data sources to inform decisions about how the increased funding can be used most effectively. And there is a clear need to move beyond a group of well-intentioned practitioners and program planners to a more educated body of professionals with sufficient resources. A reasonably modest set of goals has been set, and a range of initiatives is being devised to work toward them. Time and perhaps the next IALS will determine their degree of success.

## POSTSCRIPT

Since this chapter was completed, a number of significant developments in New Zealand adult literacy have occurred. To implement its adult literacy strategy, the Ministry of Education developed four key initiatives. First, an Adult Literacy Achievement Framework was developed and piloted nationally, to provide a common reporting structure and a common language for providers to discuss learners. Second, a Qualifications Authority-based Adult Literacy Educators Qualification is being designed for practitioners, up to certificate and diploma levels. Third, an Adult Literacy Quality Mark is being piloted as a quality assurance tool for service providers. Fourth, a national Adult Literacy Practitioners' Association has been formed to support adult literacy practitioners.

Together these four developments are seen as the cornerstones of a national integrated literacy system that involves the key participants in literacy services: the service provider, the tutors (practitioners), and the learners. New Zealand has also signed up to take part in the new round of the National Adult Literacy Survey in 2004.

## ACKNOWLEDGMENTS

Parts of this chapter are based on a comprehensive report, *Changing Skills for a Changing World: Recommendations for Adult Literacy Policy in Aotearoa/New Zealand*, researched and written by Alice Johnson as an Ian Axford Fellow in Public Policy in 2000. Alice Johnson spent 9 months researching adult literacy in New Zealand, reviewing dozens of studies and conducting four original case studies, with guidance from John Benseman of the University of Auckland and New Zealand Department of Labour researchers. Her research included interviews with more than 80 practitioners and policymakers, as well as more than 100 adult learners,

from across New Zealand. The original 109-page report was included in the consultations leading up to the writing of the Labour Government's National Adult Literacy Strategy and was published by Fulbright New Zealand. It is available online at <http://www.fulbright.org.nz/voices/axford/johnsona.html>

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# 7

## Metacognition, Cognitive Strategy Instruction, and Reading in Adult Literacy

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Jennifer G. Cromley

### INTRODUCTION

Every time people think about what they said (e.g., Was I tactful?), check something they did (e.g., Did I get the correct change?), or decide whether they have finished a task (e.g., Is this note to my daughter clear enough?), they are engaging in metacognition, or thinking about thinking. Metacognition is very important for reading comprehension. This chapter focuses on understanding the role of metacognition in reading, sources of metacognition problems, and ways to remedy these problems—all of which can be powerful tools for improving adults' reading comprehension.

The ability to monitor thinking (metacognitive monitoring, or comprehension monitoring) and to modify one's thoughts and thinking strategies (metacognitive control) develops gradually and unevenly in different



areas (e.g., social, academic) through childhood and across the lifespan (Schraw, 1998). That is, children do not naturally “check their work” and sometimes do not know how to do it until they are taught (e.g., checking the answer to a subtraction problem by adding). Teachers often see adult literacy students engaging in monitoring in their daily lives (e.g., Is this the right bus to take?), but also see students failing to check their understanding of what they read (e.g., reading a word incorrectly and not noticing that the sentence does not make sense). Adult literacy students’ metacognitive abilities from daily life may not easily transfer to their reading or other academic learning in classes.

The lack of transfer from learning in one area, or domain, to other areas may have several causes (Detterman & Sternberg, 1993). These include having less background knowledge about the target domain (Singley, 1995), having fewer domain-specific problem-solving strategies (Goldman, Petrosino, & the Cognition and Technology Group at Vanderbilt, 1999), or not knowing what to notice about the target domain (Bransford, Brown, & Cocking, 1999).

Metacognitive monitoring and control both play an important role in reading comprehension—the goal of reading—and there are promising techniques for improving students’ metacognition when they read. This chapter reviews what we know about the ability to monitor one’s own thinking during reading (metacognitive monitoring) and strategies that can be taught to help readers monitor, and thereby comprehend, better. I offer potential causes of low monitoring, including poor decoding, limited background knowledge, low vocabulary, dysfunctional beliefs about reading, low strategy use, working memory issues, and motivational barriers. I then review the research on the kinds of metacognitive monitoring readers do (or do not do) when reading, and how this can be measured. I close by summarizing research on teaching reading comprehension strategies to increase metacognitive monitoring.

As is often the case in adult literacy, there is a limited research base on metacognition with adult literacy students themselves. However, the few studies that have been conducted are highly consistent with findings from both younger readers, adult low-literate readers who are not in the adult literacy system, and other adults. We need a much larger research base on adult literacy students’ reading, and metacognition and comprehension strategy instruction are prime areas for more research. Until there is a larger research base, we can and should cautiously apply findings from these other populations to adult literacy students, because the research base with K–12 students is so sound and so promising.

## **METACOGNITIVE MONITORING DURING READING**

People with good reading comprehension tend to monitor their reading, often without being aware of it. If you have ever read a paragraph and realized that you were not paying attention or did not understand something, you were engaging in metacognitive monitoring. This kind of monitoring goes on continuously, not just when readers are aware of it. Monitoring is also related to other aspects of reading besides simply monitoring the level of understanding. When the goal is to read a newspaper article for work and the reader realizes it is relevant to something at home, he or she is engaging in monitoring. When a reader predicts who the villain is in a mystery and then realizes the prediction was wrong, she or he is engaging in monitoring. People with poor reading comprehension, on the other hand, tend to show less evidence of monitoring: They more often fail to notice when they do not understand, and they use fewer strategies, such as re-reading, summarizing, and generating questions and predictions, that are associated with monitoring.

### **Why Skilled Readers Do More Metacognitive Monitoring**

There could be several reasons why highly skilled readers do more monitoring. First, they might have more attention available for monitoring because they recognize words automatically; that is, monitoring interacts with word recognition (LaBerge & Samuels, 1974). Second, they might notice when something does not make sense because they already know a lot about the topic (Recht & Leslie, 1988) or have a large vocabulary (Stanovich, 1988). In these instances, monitoring interacts with background knowledge or vocabulary knowledge. Third, they might have been taught to pay attention to meaning (Norman & Malicky, 1987) or to use reading comprehension strategies (e.g., generating questions) that reveal when something does not make sense (Hansen & Pearson, 1983). In this case, monitoring interacts with cognitive strategy use.

Some readers have difficulty monitoring for a number of possible reasons. There is some evidence that people can have reading comprehension strategies but not use them. These people fail to see the value of reading the assigned text or are simply not interested in the text or topic (Pintrich & Schrauben, 1992). Second, low levels of monitoring

could be related to limited working-memory capacity (Siegler, 1998), problems teachers occasionally see in students with brain injuries or substance abuse. However, memory capacity also interacts with background knowledge.

The role of background knowledge merits more discussion. Background knowledge could affect monitoring in several ways because:

1. Simply knowing more about a topic makes reading easier; there is less new information to process (Recht & Leslie, 1988).
2. This background knowledge can be used to draw logical conclusions from the text to make inferences (Neuman, 1990).
3. Knowing about the topic helps readers know what to notice (Bransford, Brown, & Cocking, 1999). For example, unless you know a lot about statistics, you might not know what confuses you in the following passage and may simply feel lost: The Quartimax criterion is indifferent to where the high values are located within the P matrix—many of them could be on a single factor, for example. The Varimax modification awards a bonus to solutions in which the variance is spread out more evenly across the factors in P, so Varimax tends to avoid solutions containing a general factor. (Loehlin, 1998, p. 173)

Therefore, it is possible that adult literacy students could monitor better if they had enough background knowledge to allow them to make inferences and knew what to pay attention to in the text. Low-comprehending students monitor when they read texts that are easy for them but fail to use the same strategies when they read texts they find difficult. For example, Kletzien (1991) compared monitoring and other strategy use by good and poor 10th to 11th grade comprehenders as they read social studies texts of varying difficulty. Differences in monitoring between good and poor readers on independent or instructional level texts were not significant. On frustration-level texts (those in which more than 10% of the words were not recognized immediately), poor readers used significantly less prior knowledge than did good readers, perhaps because they had less prior knowledge to activate. This supports the first two explanations of monitoring: Monitoring interacts with word reading and background knowledge. This implies that simply telling students that reading is about meaning, without also making their word reading more automatic, building background knowledge and vocabulary, and teaching other comprehension strategies, may not be very helpful.

## MEASURING METACOGNITIVE MONITORING

Researchers have used many different approaches to measure metacognitive monitoring during reading. These include (a) asking readers to “think out loud” while reading, (b) asking people to answer reading comprehension questions and then rate their confidence in their answer (calibration), (c) inserting mistakes into a text and asking readers to detect these errors, (d) measuring the amount of time it takes people to read sentences with and without mistakes (sentences with errors require extra monitoring and often rereading, so readers should therefore take longer to read those sentences), and (d) giving readers questionnaires or conducting interviews. These approaches are discussed next.

### Think-Aloud Studies

One way to measure metacognitive monitoring is to ask people to “think out loud” while reading. Typically, readers verbalize many different cognitive strategies (e.g., paraphrasing or summarizing what was just read) and metacognitive strategies (e.g., stating that they did not understand what they just read). Students with higher reading comprehension in 4th and 5th (Meyers, Lytle, Palladino, Devenpeck, & Green, 1990), 9th (Christopherson, Schultz, & Waern, 1981; Rogers, 1991; Smith, 1991), and 10th (Olshavsky, 1976–1977) grades, as well as electronics technicians (Mikulecky & Ehlinger, 1986), college students (Steinberg, Bohning, & Chowning, 1991), medical students (De Grave, Boshuizen, & Schmidt, 1996), and lawyers (Lundeberg, 1987) have been shown to use more metacognitive monitoring on difficult texts than less-skilled readers.

For example, Mikulecky and Ehlinger (1986) observed, interviewed, and tested electronics technicians as they read and wrote in the course of their jobs. Observers noted, for example, whether the technicians skimmed a text, searched using an index, or read the text from start to finish, and whether they asked questions, verbally rehearsed information (repeated it out loud), or related information from two texts. In follow-up interviews, technicians were asked to explain what they did to be more efficient at job literacy tasks. They were also asked to read, explain, and summarize job-related materials using a short job-related passage. High-performing electronics technicians had significantly better metacognitive monitoring, including focusing on and summarizing key ideas, than did low-performing technicians.

Lundeberg (1987) asked lawyers and nonlawyers (all with master's degrees) to think out loud while reading legal cases. The lawyers noticed whether they already were familiar with the case, the judge, when the case was decided, and the judge's decision, indicating that they were monitoring what they read. Nonlawyers, all excellent readers, did not engage in any of this monitoring for familiarity (because everything was unfamiliar), and blamed themselves for not understanding (e.g., "I feel like an idiot"; Lundeberg, 1987, p. 416). In other words, metacognitive monitoring is not an all-or-nothing skill for a reader; it also depends on the text, including factors such as familiarity with the content, vocabulary, and type of writing (e.g., specialized writing used for legal briefs). These types of "think-aloud" studies have not been done with adult literacy students. One weakness of think-aloud studies is that readers may not verbalize everything they are thinking. Readers may have strategies but not be able to use them on the particular text they are asked to read, so they appear not to have the strategy. Finally, the kind of statistics (non-parametric statistics) that can be used with think-aloud studies does not allow generalization to other populations.

### **Calibration of Comprehension**

A second way to measure metacognitive monitoring is to ask people to answer reading comprehension questions and then rate their confidence in their answers. A reader who gives a wrong answer but strongly believes that answer is correct has poor calibration; that is, her or his monitoring is inaccurate. Maki (1998) has done many studies on calibration with college students and has found that more-skilled readers have better calibration (see also Commander & Stanwyck, 1997). One problem with calibration studies is that some people are overconfident or underconfident in general, and this may obscure what the confidence ratings tell us about their monitoring in reading specifically.

### **Error Detection**

A third way to measure monitoring is to insert mistakes into a text—either contradictory statements or statements that are untrue—and ask readers to find them. Again, studies have found that students with higher reading comprehension and/or older students are better able to monitor and find inconsistencies in texts than are poorer and/or younger readers. These studies have found consistent results for children in 2nd (Markman, 1979; Markman & Gorin, 1981), 3rd (Vosniadou, Pearson, & Rogers, 1988), 4th

(Markman & Gorin, 1981), 5th (Vosniadou et al., 1988), 6th (Markman, 1979), and 12th (Otero, 1998) grades and college students (Baker, 1989; Schommer & Surber, 1986).

Markman (1979) tested children in 3rd and 6th grades on expository text that contained inconsistencies (e.g., “[Ants] cannot see this chemical, but it has a special odor. . . . Ants do not have a nose,” p. 646). Sixth-grade students who were forewarned about the inconsistencies were significantly more likely to monitor their comprehension than those who were not forewarned. Baker (1989) found that college students who were better comprehenders were more likely to find inconsistencies in passages from college textbooks than were low comprehenders. In an unpublished study, Forlizzi (1992) found similar differences among adult literacy students.

Overall, students are better able to find inconsistencies when they already know something about the topic. However, when very familiar and therefore easy-to-understand content is used, readers’ failure to monitor seems to result from failing to *remember* what was just read (Vosniadou et al., 1988). One criticism of error detection tasks is that they are not like real reading because we do not often read texts with author errors.

### Reading Times

A fourth way to measure monitoring is to put mistakes in text and see how often people reread the sentences that include contradictory information. In these studies, reading is usually done on a computer, one sentence at a time, so that the amount of time spent reading and rereading each sentence can be measured. Zabrocky and colleagues (e.g., Zabrocky & Moore, 1999) conducted a series of such studies, typically with younger (college-age), middle-aged (35–45), and older (60 and older) adults. Readers of all ages spend more time on sentences that include contradictory information, indicating that they are noticing the errors, which is evidence of monitoring. Baker and Anderson (1982) also found similar results with college students. This type of study has not been done with adult literacy students. Like error detection studies, reading time studies use text that is unlike real reading, as readers have to push buttons on the computer to see the text and may only look at one sentence at a time.

### Questionnaires

A fifth way to measure metacognitive monitoring is questionnaires or interviews. Students with higher reading comprehension and/or older students

in 2nd (Myers & Paris, 1978), 3rd (Markman, 1979), and 6th (Myers & Paris, 1978) grades, as well as adult literacy students (Forlizzi, 1992; Gambrell & Heathington, 1981) report more knowledge of good metacognitive monitoring strategies than do students with lower reading comprehension and/or younger students. For example, Myers and Paris (1978) found that younger students knew little about strategies such as summarizing, memorizing, rereading, skimming, and text structure (e.g., topic sentence), when compared to 6th grade students. Gambrell and Heathington (1981) found virtually the same limited knowledge of reading strategies among adult basic education (ABE) students, compared to college juniors.

In addition, both adult literacy students (Fagan, 1988; Gambrell & Heathington, 1981; Keefe & Meyer, 1980, 1988; Poissant, 1994) and low-comprehending students in 2nd and 6th grades (Myers & Paris, 1978) report that the purpose of reading is "to say the words right." That is, lack of monitoring could partly result from ideas about what reading is (decoding vs. understanding the meaning). However, it is unlikely that this is the entire cause; lack of background knowledge, not knowing vocabulary words, never having been taught comprehension strategies, and not knowing when or how to apply those strategies are also likely contributors to a lack of monitoring.

Some problems with questionnaire and interview studies are that (a) people may give the answer they believe the interviewer wants to hear (social desirability bias), (b) people have to remember what they "usually" do when reading (retrospective or recall bias), (c) there are processes into which people do not have very good insights, and (d) a questionnaire limits the range of possible answers.

### **Metacognitive Control: Fix-Up Strategies**

The main goal of metacognitive monitoring is to detect a lack of understanding so that it can be corrected. Once readers realize they do not understand what they read, they use a wide range of what researchers have called "fix-up" strategies to try to remedy their lack of comprehension. These corrective strategies include rereading, asking for help from others, using reference material such as a dictionary, reading an additional text, making logical inferences within the text or from background knowledge, making a diagram, or reading ahead to try to make sense of the text (Pressley & Afflerbach, 1995).

In addition to monitoring and fix-up strategies, think-aloud studies have shown that good comprehenders use a wide range of other reading com-



prehension strategies while they read, even if they have no trouble understanding. In fact, more than 150 different strategies have been identified at one time or another (Rosenshine & Meister, 1994). The most frequently used strategies include generating and asking questions about the text (e.g., Hansen & Pearson, 1983), activating prior knowledge (e.g., Fehrenbach, 1991), searching for specific information (e.g., Lundeberg, 1987), summarizing or paraphrasing while reading (e.g., Pritchard, 1990), and making predictions (e.g., Olshavsky, 1976–1977). Questionnaire studies have also shown that high comprehenders are more aware of reading comprehension strategies than are low comprehenders. For example, Kozminsky and Kozminsky (2001) found that high-performing 9th-grade students knew the most about reading comprehension strategies, whereas middle- and low-performing students knew the least.

Many of these monitoring, fix-up, and other reading comprehension strategies have been taught to younger children or low comprehenders, and have improved their monitoring and comprehension. These kinds of programs are called Cognitive Strategy Instruction (CSI).

### **COGNITIVE STRATEGY INSTRUCTION**

In 2000, the National Reading Panel (NRP)<sup>1</sup> reviewed 204 CSI studies with children in grades K–12 and concluded that there was enough evidence to recommend six strategies: question generation, comprehension monitoring, summarizing, question answering, graphic organizers (diagrams, concept maps), and multiple strategy approaches (NRP, 2000; also see Block & Pressley, 2001; Pressley, 2000; Wood, Woloshyn, & Willoughby, 1995; see Fig. 7.1). Some popular study strategies, such as prediction and PQ4R (Preview, Question, Read, Reflect, Recite, Review), are notably absent from this list. The NRP concluded that programs teaching multiple strategies seem to have more promise than those that teach only one strategy, strategies should be taught in an integrated way with class content, and both teacher modeling and student independent practice seem

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<sup>1</sup>A committee of reading researchers commissioned by the U.S. Department of Education to review quantitative, experimental, published, peer-reviewed research about reading interventions in K–12 students, including basic reading, vocabulary, reading comprehension, the use of computers in reading instruction, and teacher professional development in reading instruction.



1. Question generation: Students learn to make up their own main-idea questions about what they read, such as “Why do fish have gills?”
2. Comprehension monitoring: Students are taught to notice whether they understood what they read, usually by asking themselves questions such as “Could I explain to a classmate what I just read?”
3. Summarizing: Students learn how to summarize what they just read in a few sentences, deleting unnecessary detail and condensing important information.
4. Question answering: Students are taught about different types of questions (e.g., literal questions, application questions) and how to answer them (e.g., think of synonyms for words in the question, then look for those synonyms in the text).
5. Graphic organizers, such as diagrams or concept maps (bubble diagrams): Students either get a diagram from the teacher or make one themselves. They learn how to use the diagram to better understand what they read.
6. Multiple strategy approaches: Students learn more than one strategy, such as summarizing and graphic organizers.

FIG. 7.1. Six NRP-recommended comprehension strategies.

to be important ingredients in improving monitoring and comprehension (also see Rosenshine & Meister, 1997).

### Single Strategies

Much strategy instruction research has considered a single strategy. For example, Armbruster, Anderson, and Ostertag (1987) compared 5th-grade students who were specifically taught how to summarize social studies text (treatment students) to students who received conventional question/discussion instruction (control students). Treatment students scored significantly better than control students on a short essay post-test and on written recalls, and the treatment was more beneficial for high-comprehending students than for low-comprehending ones.

Strategy instruction research has rarely been done with low-literate adults. Meyer, Talbot, Poon, and Johnson (2001) studied retired, low-literate African American adults with low reading comprehension who volunteered for a reading comprehension class. The adults were taught how to use text structure (e.g., compare-and-contrast, cause-and-effect) to better understand and remember what they read. Participants with low reading skills but normal memory significantly improved their comprehension.

## Multiple Strategies

In addition to single-strategy programs, many researchers have tried teaching several strategies together. One well-known multiple-strategy program is Reciprocal Teaching (Palincsar & Brown, 1984). Middle-school students worked in small groups, first with teacher support and later without a teacher. They learned to ask and answer questions, summarize, make predictions about the text, and clarify anything they did not understand. In the beginning, the teacher modeled how to use each strategy and coached (scaffolded) students as they learned to use it. Eventually, students were able to use the strategies on their own, and they rotated being “the teacher” for their small group. In general, students exposed to Reciprocal Teaching became much better at questioning, summarizing, predicting, and clarifying, but did not show impressive gains on standardized reading tests (Rosenshine & Meister, 1994). Alfassi (1998) found similar results with 9th-grade students.

Another multiple-strategy program is Concept-Oriented Reading Instruction (CORI), which combines cognitive strategies with motivating activities and teacher support for 3rd to 5th grade students (Guthrie, VanMeter, Hancock, Alao, Anderson, & McCann, 1998). In CORI, reading engagement is nurtured by a combination of real-world interactions (e.g., hands-on science activities), student choices, direct instruction in reading strategies using trade books, peer collaboration, and student self-expression (e.g., class projects and presentations) delivered in a coherent manner around a unifying science theme. CORI students have shown improvement on both standardized and researcher-designed reading comprehension tests (Guthrie, Anderson, Alao, & Rinehart, 1999; Guthrie et al., 1996).

Butler (1998) has developed a multiple-strategy intervention called the Strategic Content Learning (SCL) approach. She has worked with low-performing college students to set goals for their learning; use, monitor, and adjust various strategies; and evaluate their performance. Students show impressive gains in metacognitive monitoring, strategy use, and motivation; reading comprehension was not measured.

## Guidelines for Cognitive Strategy Instruction

Strategy instruction can have a big impact on student learning, but it also takes a long time to teach it and ensure that students have enough practice. A suggested sequence for effectively teaching strategies, in practice or research programs, based on the large body of K–12 research over the last

20 years, is presented below. Detailed discussions with numerous examples are found in Rosenshine and Meister (1997). Note that CSI is a much more interactive and involved process than previous approaches to teaching reading comprehension, such as “main idea” workbooks.

1. *Explain why using the strategy will improve learning.* Students need to know not only how to use the strategy, but also *why* it will be useful because they will put a lot of effort into learning it.

2. *Demonstrate how and when to use the strategy.* Teachers usually do this by “thinking out loud” while using the strategy. For example, while searching in an index, the teacher might say, “Now, I’m looking for Antietam, An . . . Hmm, I don’t see it. Maybe it’s under Battle of Antietam . . . Yes, there it is, Battle of . . . So, you see when I can’t find something in the index I think of another way it could be listed in there.” This can be hard for teachers to do because they have learned these strategies so well that they are automatic.

Some strategies are useful only in certain circumstances. For example, a summary is usually good for a research paper but not a detailed telephone message. Teachers need to explain *when* to use the strategy, as well as how to do it.

3. *Have students practice using the strategy.* Simply explaining how to generate questions does not mean students will learn how to do it. They need to actively practice, ideally using real texts for their classes.

4. *Support students while they learn the strategy.* Students need support, or scaffolding, while learning to use strategies. Scaffolding may include hints, questions, reminders, explanations, or other supports. Ideally, scaffolding should be as open-ended as possible, yet give students the support they need. For example, students learning a search strategy and using the phone book to find a pediatrician near their house may have trouble because pediatricians are listed under “Physicians—Pediatrics” instead of under “Doctors,” where they expected to find it. Depending on the students’ skills, the teacher might scaffold their learning by (a) asking students how they might figure out where the listings could be (use the index), (b) suggesting that students use the index in the back of the phone book, (c) opening to the index and asking students to think of another word for “Pediatrician,” (d) telling students to look under “Doctor” in the index, (e) talking students through the entire process, from thinking of synonyms, to looking up the synonym in the index, then turning to the “Physicians—Pediatrics” section of the phone book. All of these approaches *scaffold* or support student learning.

5. *Let students explain what they understood from their reading.* This gives the teacher the opportunity to see how well students comprehend, and it shows students how the strategy was valuable to learn because it helped them understand better.

6. *Give students feedback on their answers.* Feedback is important information that can help students know whether they understand how to use the strategy effectively. Feedback should be very specific (e.g., “I like how you used the index to do your search”) rather than just “Good answer.” For summarizing, feedback might be, “I like how your summary was short, but it told me all of the important ideas,” rather than “That’s a nice summary.” For question generation, feedback might include, “I like how your question asked about this important concept of how whales breathe. It wasn’t just one picky detail, like ‘How big is a killer whale?’” Feedback also needs to be tailored (e.g., private vs. public feedback) for adults and for the cultural context of the classroom.

7. *Debrief with students about how useful the strategy was to them.* This can help students make the connection between using the strategy and better comprehension.

## CONCLUSION

Readers of all ages who do little metacognitive monitoring when faced with a particular text will have trouble understanding that text. Low levels of metacognitive monitoring can be caused by slow decoding skills, low background knowledge and/or vocabulary, low knowledge of comprehension strategies, having the strategies but not knowing how or when to use them, or a combination of these (Pressley, 2000).

### Implications for Practice

Practitioners who want to help adult literacy students become more metacognitive when reading need to know what strategies are effective; proven methods for teaching strategies; and that instruction in fluency, background knowledge, and vocabulary may also be needed to improve comprehension. Teachers also need more research specifically with adult literacy students, to make sure that what works with K–12 students also works with adult literacy students. Teachers need training, planning time, and perhaps more instructional materials (e.g., to teach prediction, teachers need books that allow for prediction, for example, stories with characters who

act consistently, not history textbooks). Strategy instruction takes a lot of time and practice by students to be successful, but it is the only method of specifically teaching reading comprehension that has strong evidence to support it.

### **Implications for Research**

Researchers in adult literacy face much uncharted territory when it comes to metacognitive monitoring, especially regarding strategy instruction. Researchers should be familiar with the K–12 research base in these areas, as well as with the adult literacy research base (see the annotated bibliography that follows). Strategy instruction holds much potential for improving the reading comprehension of adult literacy students, but that potential is largely untapped; this area is ripe for investigation. Beyond the basic questions of whether the K–12 strategies are effective with adults, we do not know which adults, and at which stages of literacy development, will benefit most from strategy instruction. We need to know how much training and mentoring practitioners need, and how much strategy instruction adults need to improve their comprehension. We also need to identify combinations of strategy instruction and other reading instruction (e.g., building background knowledge and teaching summarizing) that are optimal for adults at various stages of learning. Researchers should also be aware of the methodological pitfalls in strategy research (see Lysynchuk, Pressley, d'Ailly, Smith, & Cake, 1989) so that they can conduct research that meets the highest standards.

### **Implications for Policy**

Policymakers need to address both the practitioner training and research aspects of metacognition and strategy instruction. Funding is needed to provide practitioners with training in what metacognitive monitoring is, and how to do strategy instruction, from knowledgeable and experienced professionals. This training should be based on the K–12 research base until more research is conducted specifically with adult literacy students. Funding is also needed for release time for practitioners so they can attend training and plan new lessons. Policymakers also need to fund high-quality research in metacognition and strategy instruction for adult literacy students, so that adult literacy efforts have the most impact in helping students reach their goal of fuller participation in a literate society.

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# Resources on Metacognition, Cognitive Strategy Instruction, and Reading in Adult Literacy

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Jennifer G. Cromley

These are recent research-based publications about metacognition and cognitive strategy instruction in reading, with a focus on adults. Empirical, quantitative research studies and reviews of such studies were selected because these are most generalizable to adult literacy students as a whole. As there is so little published research on adult literacy students, this bibliography also includes studies on other adult populations that are not in the adult literacy system but share certain characteristics with adult literacy students, such as older adults, low-literate adults who are not in adult literacy programs, and community college students who struggle with reading. Most of the citations are from the last 10 years; references to earlier work can be found in the bibliographies of these sources. This bibliography is arranged in two main sections, Metacognition and Strategy Instruction, to

parallel chapter 7. Within each section, references are arranged by type of publication (books and book chapters, journal articles, and other documents) and listed chronologically. As many of the studies use technical terminology, a short glossary is provided at the end of this bibliography.

## METACOGNITION

The sources listed here reviewed the research with children, suggested implications for teaching adults, and in a few cases studied adult literacy students or other adults.

### Books and Book Chapters

Hertzog, C., & Hultsch, D. F. (2000). Metacognition in adulthood and old age. In F. I. M. Craik & T. A. Salthouse (Eds.), *The handbook of aging and cognition* (pp. 417–466). Mahwah, NJ: Lawrence Erlbaum Associates.

*Focus:* Whether metacognition declines with age.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This is a detailed review of metacognition from psychology and education, and whether metacognition might be a cause of declining memory and problem solving in old age. In general, metacognition does not decrease in old age, although speed of accessing information from memory declines.

Sabatini, J. (1999). Adult reading acquisition. In D. A. Wagner, R. L. Venezky, & B. V. Street (Eds.), *Literacy: An international handbook* (pp. 49–53). Boulder, CO: Westview Press.

*Focus:* Decoding problems as a source of low reading comprehension.

*Audience:* Researchers and teachers.

*Level of background knowledge required:* High.

This chapter reports on decoding, word reading, and passage reading tests done on 101 adults with low- through college-level reading skills. Adults show the same patterns as children—low phonemic awareness relates to low decoding and low reading comprehension. Adults who have trouble decoding words also know fewer sight words (decoding allows people to learn them by sight). Decoding is

one source of reading comprehension difficulty, among such others as vocabulary and background knowledge. See also the special 2002 issue of *Scientific Studies of Reading*, 6(3) on reading development in adults.

Hacker, D. J., Dunlosky, J., & Graesser, A. C. (1998). (Eds.), *Metacognition in educational theory and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.

*Focus:* Metacognition in many aspects of learning.

*Audience:* Researchers and teachers.

*Level of background knowledge required:* High.

Fourteen chapters review many aspects of metacognition in education, including reading, writing, problem solving, and studying. This book combines what is known about metacognition from both psychology and education. Chapter 8 focuses on reading and the interaction between metacognitive strategies and cognitive strategies in reading.

Schraw, G. (1998). On the development of adult metacognition. In M. C. Smith & T. Pourchot (Eds.), *Adult learning and development: Perspectives from educational psychology* (pp. 89–106). Mahwah, NJ: Lawrence Erlbaum Associates.

*Focus:* Extending research with children to adult metacognition.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This chapter reviews the research on children's metacognition and suggests how it can be extended to adults generally. It discusses the relationship between knowledge of a subject (a domain) and metacognition in that domain. Reviews several examples of strategy instruction programs that have improved metacognition.

Garner, R. (1993). "Seductive details" and adults' learning from text. In S. R. Yussen & M. C. Smith (Eds.), *Reading across the lifespan* (pp. 215–222). New York: Springer-Verlag.

*Focus:* How interesting but unimportant details affect reading comprehension.

*Audience:* Researchers.

*Level of background knowledge required:* High.

Children can have trouble remembering important ideas when a text contains interesting but unimportant details (called “seductive details”). A high level of metacognitive monitoring is required to separate out and remember important information. Are adults also affected by seductive details? Garner and colleagues found that the almost 300 undergraduates who participated in a series of studies in which they read texts and later recalled as much as they could remembered what interested them, not what was important, in the texts. She points out that the less students know, the harder it is for them to know what is important rather than interesting (that is, without background knowledge, it is difficult to be metacognitive). However, if text is both interesting and informative, the problems are avoidable. This has implications for the reading materials chosen for students in adult education; if they contain interesting details, these details need to be relevant to the ideas in the text.

### **Journal Articles**

Campbell, P., & Malicky, G. (2002). The reading strategies of adult basic education students. *Adult Basic Education*, 12(1), 3–19.

*Focus:* Strategies adult literacy students use to recall text.

*Audience:* Researchers and teachers.

*Level of background knowledge required:* High.

This study asked 36 to 40 adults at each of nine reading levels to read out loud and recall what they read. Each student read two texts at an appropriate reading level, based on teacher recommendations and answers to comprehension questions. The research analyzed oral reading errors and recall strategies, using an interactive model of reading. Students used verbatim recall from text, summarizing, synthesis, inferences, personal experience, and erroneous information equally across reading levels. This finding is very similar to what has been found with children when they read text at an independent reading level (but not with more difficult texts). The authors suggest that because readers at all levels used the same reading strategies equally well, materials should change as students progress in their reading, and strategy instruction should be the same across all levels of reading. However, this contradicts the large body of research showing

that poor comprehenders lack strategies and that strategy instruction helps these students comprehend better.

Commander, N. E., & Stanwyck, D. J. (1997). Illusion of knowing in adult readers: Effects of reading skills and passage length. *Contemporary Educational Psychology*, 22, 39–52.

*Focus:* Relationship between level of comprehension and accuracy of monitoring comprehension.

*Audience:* Researchers.

*Level of background knowledge required:* High.

Children who are good readers are more accurate in their metacognitive monitoring, and poor readers are less accurate. But is this true for older readers? In this study, 60 low-skill, younger, and less-educated adults and 76 average-skill, older, and more-educated undergraduate- and graduate-level college readers (average age 30) were tested for their level of awareness of whether they understood a reading passage (accurate metacognitive monitoring). Among this group of college students, there was no relationship between the reading skill groups and their accuracy of monitoring. Many low-skill readers were good at monitoring, and many high-skill readers were poor at it. There were, however, differences across types of text. Students who read a shorter, less detailed passage were more likely to believe they understood than did students who read a longer, more detailed passage. Students who read the shorter passage also remembered less of the passage, which is consistent with much previous research. The authors suggest teaching college students to ask themselves whether they have understood what they read, using a method such as Palincsar and Brown's Reciprocal Teaching. These findings suggest that older adult literacy students may also have metacognitive monitoring problems when reading academic material, even if they can monitor well in other aspects of their lives.

Devolder, P. A., & Pressley, M. (1992). Causal attributions and strategy use in relation to memory performance in younger and older adults. *Applied Cognitive Psychology*, 6, 629–642.

*Focus:* Beliefs about memory/learning and use of strategies.

*Audience:* Researchers.

*Level of background knowledge required:* High.

Children who believe they have control over learning (that is, if they work harder and use good learning strategies, they will learn more), actually learn more and use better strategies than children who feel they have no control (that is, they feel “either you’re born smart or you’re not”). To see whether this is also true for adults, the researchers tested 48 older adults (average age 69) and 48 younger adults (average age 28). They found that people who believed in putting effort into remembering and using memory aids (for example, associating the name in a photograph to the background or to someone they knew), remembered better, whether they were young or old. Therefore, beliefs about memory affect the young and old alike. However, many of the older people thought it was “cheating” to use memory aids and to put effort into remembering. They thought that what memory really involved was “imprinting on the mind” or “absorbing material” (p. 639). Many older adults also believed they could not remember, so they did not try to remember. Tasks in the study included learning a list of words, learning the names of people in photographs, and remembering to make phone calls at scheduled times. The younger adults remembered words and names better than the older ones but did not perform better in remembering to make phone calls at scheduled times. (The older group did not perform this task better simply because they had more free time—all participants were occupied during the day and had the same amount of free time.) The younger group tried to “remember” when to make the calls, did not use any memory strategy, and failed to remember; the older group used notes to remember when to call and did remember. These results may be useful in comprehension strategy instruction with adult literacy students, although teachers may need to reassure students that these strategies are not “cheating.”

Garner, R. (1990). When children and adults do not use learning strategies: Toward a theory of settings. *Review of Educational Research*, 60(4), 517–529.

*Focus:* Why adults may have reading strategies but do not use them.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This article points out that people can have reading strategies but not use them (also see Pintrich & Schrauben, 1992). The authors argue

that five reasons for failing to use strategies are (a) poor metacognitive monitoring, (b) nonproductive problem-solving habits (e.g., copying verbatim to summarize a text), (c) low background knowledge, (d) believing that failure results from low ability, not low strategy use, and (e) lack of transfer of a skill from one subject or area to another. Garner notes that classroom environments can contribute to all of these problems by not teaching when strategies are useful (e.g., searching is not useful as the only strategy to study for a test), not clearly defining tasks (e.g., not specifying that composition is as important as mechanics in writing), by setting up individual competition (leading students to attribute failure to low ability), emphasizing test scores over understanding, and practicing skills using a narrow range of problems (e.g., practicing adding decimals, but not adding money).

Baker, L. (1989). Metacognition, comprehension monitoring, and the adult reader. *Educational Psychology Review*, 1(1), 3–38.

*Focus:* Metacognitive monitoring and strategy use research.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This article reviews dozens of studies published from 1984 to 1989 on college students' awareness of their reading comprehension. In general, adults who read well had the characteristics of children who read well: They knew a lot about the subject and used many effective reading strategies, such as relating what they read to what they knew, rereading some parts of the text, and forming opinions about what they read. Adult college students who read poorly, like children who are poor readers, used few strategies (they either gave up or reread the entire text over and over again without understanding) and were less aware than good readers of their lack of understanding of what they read. Adults who were poor readers focused on details rather than main ideas and on their own, not the author's, ideas. They also blamed themselves when they had trouble understanding (instead of recognizing that what they were reading was hard to understand) and focused on words they did not understand (especially familiar words used in specialized ways, such as "regarding" meaning "in reference to" rather than "looking at"). The article points out that this research contradicts previous research that assumed all adults have



fully developed reading skills and that children are aiming for a level all adults have reached. Even college students are at many different reading levels. The article notes that many teaching methods that worked with adults in these studies had been proven on children first (teachers demonstrating problem solving by thinking out loud; group learning; questioning, summarizing, and predicting [Reciprocal Teaching]; and learning the usefulness of reading strategies). Many of the college students in the studies were remedial (usually called developmental) students, but some were not, and both groups benefited from these research-based teaching methods.

Mikulecky, L., & Ehlinger, J. (1986). The influence of metacognitive aspects of literacy on job performance of electronics technicians. *Journal of Reading Behavior*, 18(1), 41–62.

*Focus:* Testing the text structure strategy with low-literate adults.

*Audience:* Researchers.

*Level of background knowledge required:* High.

Twenty-nine electronics technicians took reading tests, answered verbal questions, and were observed reading on the job. The research subjects included supervisors, experienced technicians, and technicians-in-training from a naval base, two electronics plants, and a technical school. Participants tested at 12th–14th grade reading level. They spent about 1 hour 40 minutes per day reading reports, blueprints, and manuals and about 30 minutes filling out forms or writing notes. The best technicians were better able to find main ideas when they read and explained what they had read, and they tended to underline or highlight important points as they read. The authors suggest that simple “read and comprehend” skills are rarely used on the job; instead, adults need the more complex skills involved in applying what they read to their work tasks.

## Other Documents

Venezky, R. (1999). A bibliography on metacognition and reading. Retrieved May 14, 2002, from [http://www.udel.edu/ETL/SARA/Bib\\_metacog.html](http://www.udel.edu/ETL/SARA/Bib_metacog.html)

*Focus:* Resources on metacognition and reading.

*Audience:* Researchers.

*Level of background knowledge required:* Medium.

This bibliography was compiled in the mid-1990s and contains references to more than 45 articles and other sources about metacognition and reading from childhood to adulthood.

Paris, S., & Parecki, A. (1993). *Metacognitive aspects of adult literacy*. Philadelphia: National Center on Adult Literacy. (ERIC Document Reproduction Service No. ED363734)

*Focus:* Research on children, with suggestions for teaching adults.

*Audience:* Researchers and teachers.

*Level of background knowledge required:* Medium.

Paris, a well-known researcher in children's metacognition, was asked by ERIC to summarize what was known about metacognition and reading, and to suggest possible implications for adult literacy. The authors emphasize the importance of what adults believe reading is: Learners who believe reading is about pronouncing will not use comprehension monitoring or strategies. They emphasize metacognition as focused on meaning—a focus that can be lacking in adult literacy programs. They point out that there are many gaps in the research, especially for adult literacy students. They add that metacognition is not a panacea or the most-needed skill for all adult literacy students. This work has an extensive bibliography of pre-1993 sources, including unpublished reports.

Forlizzi, L. (1992). *Exploring the comprehension skills and strategies of ABE students*. University Park: Pennsylvania State University, Institute for the Study of Adult Literacy. (ERIC Document Reproduction Service No. ED 352527)

*Focus:* Adults' beliefs about reading and ability to detect errors in text.

*Audience:* Researchers.

*Level of background knowledge required:* High.

In this study, 47 native English-speaking ABE students reading at the 5th to 9th grade level were interviewed about their ideas about reading. When asked what makes a good reader, 53% said practice makes someone a good reader, 34% said understanding, and 30% said motivation (more than one answer was allowed for all questions). When asked how they would be aware of whether they were reading well,

students either said they would know because they understood the reading (45%) or did not know how they could be aware of reading well (17%). In terms of what makes something hard to read, 62% said words they could not read, 40% said subjects they either did not know or were not of interest to them, and 32% said small print or disorganized text. Between 34% and 53% of students said they would reread a sentence that did not make sense. Sixty-six percent of students noticed a scrambled sentence when given a passage to read, but only 35% noticed a sentence that contradicted the rest of the passage but was grammatically correct (e.g., the text said that someone providing first aid should talk to the victim but later said they should not talk). Students who noticed these sentences would reread and/or think back to the rest of the passage, but only 31% tried to make sense of the contradiction, and the rest ignored it. This suggests that programs should help students become more aware of whether or not they understand, and that methods that work with children are likely to work with adults.

## **COGNITIVE STRATEGY INSTRUCTION**

Although summarizing, question generation, and other cognitive strategy instructions repeatedly have been found effective with children, there have been very few studies with adults. The vast literature on strategy instruction with children may be applicable to adult learning.

### **Books and Book Chapters**

Meyer, B. J. F., Talbot, A. P., Poon, L. W., & Johnson, M. M. (2001). Effects of structure strategy instruction on text recall in older African American adults. In J. L. Harris, A. G. Kamhi, & K. E. Pollock (Eds.), *Literacy in African American communities* (pp. 233–263). Mahwah, NJ: Lawrence Erlbaum Associates.

*Focus:* Testing the text structure strategy with low-literate adults.

*Audience:* Researchers.

*Level of background knowledge required:* High.

Meyer and colleagues taught 22 urban and rural retired African American adults to use the structure of reading passages to better

understand and remember what they read. Participants learned about compare and contrast, cause and effect, and other text structures, and practiced recognizing and using them to remember short passages. They received six classes of 1.5 hours each over three weeks. Participants with low reading skills but normal memory were better able to understand and remember what they read.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute for Child Health and Human Development.

*Focus:* Peer-reviewed experimental research in K–12 reading.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This massive literature review of the peer-reviewed, published experimental research in K–12 reading summarizes 204 cognitive strategy instruction studies. The panel concluded that there is sufficient evidence to recommend six strategies: question generation, comprehension monitoring, summarizing, question answering, graphic organizers (diagrams, concept maps), and multiple strategy approaches. The panel felt that other popular strategies (e.g., predicting) did not have enough experimental support to recommend them.

Pressley, M. (2000). What should comprehension instruction be the instruction of? In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 545–561). Mahwah, NJ: Lawrence Erlbaum Associates.

*Focus:* Different sources of reading comprehension problems and features of successful strategy instruction.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This work begins by describing automatic word attack skills and vocabulary necessary for comprehension, then discusses the importance of cognitive strategies and how they have been successfully taught to students. It reviews the research on strategies that effective readers use, including activating prior knowledge, setting reading goals, paraphrasing, and other cognitive strategies. It also reviews the features of effective strategy instruction programs, including

direct teaching, modeling, guided practice, support, feedback, and reflection, using content-area books.

National Adult Literacy and Learning Disabilities Center. (1999). *Bridges to practice: Guidebook 4—The teaching/learning process*. Washington, DC: Academy for Educational Development.

*Focus:* Strategy instruction for learning disabled (LD) adults developed at the University of Kansas.

*Audience:* Teachers.

*Level of background knowledge required:* Low.

The authors recommend using research-based strategies that work with children with learning disabilities when teaching LD adults. University of Kansas researchers tried teaching strategies that had worked on children with learning disabilities and found they worked with low-level LD adults. They successfully taught phonemic awareness, sounding out, decoding, reading comprehension strategies, and the connection between strategies, effort, and progress.

Wood, E., Woloshyn, V., & Willoughby, T. (1995). (Eds.), *Cognitive strategy instruction for middle and high schools*. Cambridge, MA: Brookline.

*Focus:* Strategy instruction for high school students.

*Audience:* Teachers.

*Level of background knowledge required:* Low.

This teacher-friendly guidebook has chapters on proven strategies for different subject areas (e.g., reading, science, math). It offers many illustrations, checklists, and forms to help teachers deliver strategy instruction in the classroom. It includes many memory strategies, such as mnemonics, as well as reading comprehension strategies. This work cites studies done with middle- and high-school students.

Pressley, M., Woloshyn, V., & Associates. (1995). *Cognitive strategy instruction that really improves children's academic performance* (2nd ed.). Cambridge, MA: Brookline.

*Focus:* Strategy instruction for elementary school students.

*Audience:* Teachers.

*Level of background knowledge required:* Low.

Like the last book, this teacher-friendly guidebook has one chapter on each subject area, and includes illustrations, checklists, and forms. It cites studies done with elementary students.

Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. H. Schunk & J. L. Meese (Eds.), *Student perceptions in the classroom* (pp. 149–184). Hillsdale, NJ: Lawrence Erlbaum Associates.

*Focus:* Connections between motivation and strategy use.

*Audience:* Researchers.

*Level of background knowledge required:* High.

The authors reviewed a series of studies they conducted with more than 3,000 college and junior high school students, finding that students who had higher motivation (e.g., felt confident they could do the work in a particular subject) also reported using more reading strategies, such as connecting what they read and what they already know (called elaborating). The authors found that some students know how to use strategies (e.g., summarizing), but do not use them because they lack confidence, interest, or other aspects of motivation. Motivation did not improve achievement by itself, however; it increased strategy use, and the strategies increased achievement. These findings suggest that teaching strategies alone is not enough—teachers should create contexts that help students feel confident they can do the work, attribute success to their own efforts, and value learning tasks.

## Journal Articles

Guthrie, J. T., Anderson, E., Alao, S., & Rinehart, J. (1999). Influences of concept-oriented reading instruction on strategy use and conceptual learning from text. *Elementary School Journal*, 99, 343–366.

*Focus:* Results of the Concept-Oriented Reading Instruction strategy program.

*Audience:* Middle school researchers and practitioners.

*Level of background knowledge required:* Medium.

Guthrie and colleagues designed a multiple-strategy instruction program for 3rd and 5th grade students. This program included direct instruction in activating prior knowledge, searching, and self-

monitoring; reading science trade books (not textbooks) that teachers helped students select; hands-on science experiences; group work; and final presentations. The purpose of this combined cognitive and motivational program was to increase students' deep conceptual knowledge of science, motivation to read, and reading comprehension. One hundred twenty students in CORI classrooms significantly outperformed control group students in traditional classrooms on these measures.

Mikulecky, L., & Lloyd, P. (1997). Evaluation of workplace literacy programs: A profile of effective instructional practices. *Journal of Literacy Research*, 29(4), 555–585.

*Focus:* Characteristics of successful workplace literacy programs.

*Audience:* Researchers.

*Level of background knowledge required:* High.

The authors examined which classroom methods predicted the best progress of 180 participants in workplace literacy programs at six industry sites (auto manufacturing, prison, insurance, hospital, gas-kets, and electric motors). Students had better reading at the end of the program if the classes (a) spent a lot of class time (70%) reading and writing, (b) used a lot of workplace reading and writing materials instead of textbooks, (c) had discussions about how to be a good reader (that is, taught comprehension strategies—e.g., “Did you understand what you just read? Can you explain it to me in your own words?”), and (d) had discussions about how well students were reading (that is, as students learned more strategies and got better at reading, teachers told them they were getting better, which motivated them to keep working). This type of evaluation study is limited because it is a snapshot of what is being done, not what is likely to work best.

Weinstein, C., Ridley, D. S., Dahl, T., & Weber, E. S. (1989). Helping students develop strategies for effective learning. *Educational Leadership*, 46(4), 17–19.

*Focus:* A brief introduction to research-based strategy instruction.

*Audience:* Teachers.

*Level of background knowledge required:* Low.

This provides a brief overview of reasons for strategy instruction and focuses on student self-questioning. It includes examples of ques-

tions (e.g., “If I lived during this period, how would I feel about my life?” p. 18) and a description of teacher training workshops the authors have conducted.

Chall, J. S. (1987). Reading development in adults. *Annals of Dyslexia*, 37, 240–251.

*Focus:* A model of what is needed for adults to develop reading comprehension.

*Audience:* Researchers.

*Level of background knowledge required:* High.

This work argues that the author’s six stages of reading development are the same in adults and children (that is, reading skills progress in a consistent way, and adults cannot skip steps or do them in a different order). Educators of adults often assume that adults have a problem with motivation, not their ability to decode without a lot of effort. Chall points out that if reading develops “naturally” from vocabulary and exposure to written materials, adults would have figured out how to read. At about a 4th-grade reading level, reading moves from using conversational words and sentence structure to a larger vocabulary and more complex sentences. The author argues that many adult low-level readers fell behind in reading/decoding as children and are stuck in their stage of reading. As children, they did not get the reading skills to learn new information from what they read (i.e., metacognitive and cognitive reading strategies), so they fell behind in vocabulary and knowledge. This piece points out that there are not many interesting reading materials appropriate for low-level adult readers and that it takes much “more than a few weeks or months of intensive instruction in decoding” to reach literacy levels demanded by our society. The author suggests conducting more research on reading skills beyond decoding for adults and whether methods that work with children also work with adults.

## GLOSSARY

**Decoding**—sounding out words.

**Morphological knowledge**—knowledge of prefixes and suffixes and what they mean; knowledge of how words can be put together.



**Orthographic knowledge**—knowledge about spelling patterns (e.g., rough, tough, enough vs. scuff, buff, duff).

**Word attack**—strategies for figuring out word pronunciation, including decoding, morphological, and orthographic strategies.

**Phonemic awareness**—ability to separate words into sounds (e.g., “dog” is made up of three sounds: “d,” “aw,” and “g”); a precursor to decoding.

**Phonological awareness**—knowledge about the sounds in language (e.g., phonemic awareness, rhyme, word families, and counting syllables).

**Sight words**—words that are recognized immediately and do not need to be decoded.