

U.S. Adult Literacy Programs: Making a Difference

*A Review of Research on Positive Outcomes Achieved
by Literacy Programs and the People They Serve*



PROLITERACY
America



U.S. Programs Division of ProLiteracy Worldwide
March 2003

ProLiteracy America
U.S. Programs Division of ProLiteracy Worldwide
1320 Jamesville Avenue, Syracuse, New York 13210
Telephone: (315) 422-9121
Fax: (315) 422-6369
<http://www.proliteracy.org>

© ProLiteracy Worldwide 2003

U.S. Adult Literacy Programs: Making a Difference

*A Review of Research on Positive Outcomes Achieved
by Literacy Programs and the People They Serve*

PROLITERACY
AMERICA



U.S. Programs Division of ProLiteracy Worldwide
March 2003

Table of Contents

- About ProLiteracy Americav
- Introductionvii
- Executive Summary1
- Overview of the Literacy Problem in the United States**
 - The Extent of the Problem3
 - Under-funding of Adult Literacy Programs3
 - Some Definitions4
 - Why Judging Progress Is a Challenge4
 - What Test Scores Show5
 - Other Types of Student Gains5
 - Demand for Literacy Services6
 - Overall Economic Impact of Literacy Programs6
- How Literacy Programs Help Produce Positive Outcomes**
 - Employment and Earnings**
 - Statement of the Problem7
 - Outcomes8
 - Welfare and Poverty**
 - Statement of the Problem11
 - Outcomes11
 - Health**
 - Statement of the Problem13
 - Outcomes14
 - Corrections**
 - Statement of the Problem17
 - Outcomes17
 - Children**
 - Statement of the Problem19
 - Outcomes19
 - Women**
 - Statement of the Problem23
 - Outcomes23
 - English as a Second Language**
 - Statement of the Problem25
 - Outcomes26
 - Empowerment**
 - Statement of the Problem28
 - Outcomes28
- Conclusion31
- Resources33

About ProLiteracy America

ProLiteracy America is the U.S. Programs Division of ProLiteracy Worldwide. Headquartered in Syracuse, N.Y., it is the largest adult literacy organization in the United States. It collaborates with other national organizations to raise awareness of literacy issues, to advocate for the needs of adults and the programs that serve them, and to develop new approaches to meeting these needs. ProLiteracy America provides information, training, and technical assistance to a network of 1,200 adult literacy programs, including volunteer-based local and state affiliates. Together, the network serves nearly 235,000 adults and their families each year. ProLiteracy America works to foster continuous quality improvement through its program accreditation and trainer certification initiatives.

ProLiteracy Worldwide is a 501(c)(3) educational corporation that supports literacy programs in 47 developing countries and the U.S. Its publishing division, New Readers Press, produces and distributes instructional materials and program resources to literacy organizations, schools, libraries, and other institutions in the U.S. ProLiteracy Worldwide was formed in August 2002 as a result of the merger of Laubach Literacy International and Literacy Volunteers of America, Inc. The merger enables ProLiteracy to draw on almost 90 years of expertise from these two organizations.

ProLiteracy Worldwide Mission

To sponsor educational programs and services whose purpose is to empower adults and their families by assisting them to acquire the literacy practices and skills they need to function more effectively in their daily lives and to participate in the transformation of their societies.

Introduction

Adult education and literacy programs are increasingly being called upon to prove that they are effective:

- Funders want to know that their dollars are being well used.
- Community agencies that refer students to programs want to know that people will get the help they need.
- Potential volunteers want to know that their time will be well spent.

Program leaders recognize that outcomes are important. They understand the value of being able to prove that the students who attend literacy and adult education programs make progress, and that their learning has benefits for the individuals involved as well as for their families, their employers, and their communities. Many of these programs, however, are struggling with *how* to demonstrate outcomes.

After talking with literacy and adult educators throughout the country, ProLiteracy America staff decided that it could help by providing local programs with information about the research and outcome-related studies that have been conducted over the past several years. Local programs could then decide how to best use and build upon this information.

To assist us, we asked Dr. Allen Manning to conduct a survey of research about the effects of low literacy and the outcomes that are achieved by people who participate in adult education and literacy programs. We are pleased to present the results of his work in this report.

It is important to note that some of the studies cited are not comprehensive research studies; however, as a growing body of information, they do demonstrate that literacy and adult education programs are making a positive difference.

We hope that this report will be a useful tool for those individuals and organizations that are part of the Adult Education and Literacy System (AELS) in the United States and for the communities that support them.

Dr. Peter A. Waite
Vice President of ProLiteracy Worldwide and
Executive Director of ProLiteracy America

Executive Summary

What Is the Problem?

The National Adult Literacy Survey (1993) found that approximately 44 million Americans have extremely limited reading and quantitative skills. Research indicates that these adults do poorly in the job market and many other areas. Literacy and adult education programs are working hard to change this and to ensure that adults have access to quality services that will enable them to improve their literacy skills. Unfortunately, many of these programs lack the ability to conduct the research needed to prove that what they are doing improves people's lives.

How Does this Report Address that Problem?

The report summarizes a variety of published studies that demonstrate that adult and family literacy programs are helping people to dramatically improve their lives. The report answers three basic questions:

1. What specific problems do adults with low literacy skills face?
2. Do adults who participate in literacy programs in fact make significant gains in literacy/language skills?
3. How does participation in a literacy program benefit an adult's health, earnings, family relationships, etc? How does society benefit when adults participate in literacy programs?

The report focuses on the following eight areas or groups of people that are especially affected by a lack of literacy skills. For more complete information about the research in each of these areas, consult the pages listed in parentheses.

Employment and Earnings (pp. 7–10)

Actual earnings for high school dropouts have declined more than 20% since 1979. Also, the number of jobs for which adults with low skills qualify continues to drop; those with only a high school education or below now qualify for fewer than 20% of all new jobs.

Evidence shows: Adult literacy programs help students gain the skills they need to get and keep jobs. An AT Kearney study reported that for every dollar invested in Literacy Volunteers of America, Inc. students experienced a \$33 economic gain in their lives. This report is discussed later in this document.

Welfare and Poverty (pp. 11–12)

Seventy percent of adult welfare recipients function at the lowest level of literacy. Recent high school dropouts are more than three times as likely to receive public assistance as recent high school graduates.

Evidence shows: Literacy programs help adults make significant inroads in their fight against welfare dependence. In a national study, 80% of literacy programs reported an overall reduction in welfare dependence among their students.

Health (pp. 13–16)

Those who lack basic literacy skills are much more likely than others to suffer from heart disease, diabetes, and prostate cancer and to have health care expenses as much as six times higher than adults with average levels of literacy.

Evidence shows: As people gain literacy skills, they are more likely to understand their health problems, have both the confidence and knowledge they need in order to find appropriate medical care, and follow their treatment regimens properly.

Corrections (pp. 17–18)

Although the average reading and math levels of an incarcerated adult are at or below the eighth-grade level, only 9% of all prisoners with low literacy skills receive literacy training while in prison.

Evidence shows: Among adults who have been in prison education programs, 20% are reincarcerated as compared to 49% of those who have not been in a program. When researchers take reductions in recidivism into account, each dollar spent on correctional education pays back at least two dollars.

Children (pp. 19–22)

The children of low-literate parents tend to get poor care and poor nutrition at home and to do poorly in school.

Evidence shows: When adults enter literacy programs and improve their literacy skills, their children tend to have fewer nutrition and health problems, drop out of school less, and have fewer teen pregnancies, less joblessness, and less social alienation.

Women (pp. 23–24)

Worldwide, 70% of adults who lack basic literacy skills are women. Low-literate women earn only 70.1% as much as men with equivalent skills.

Evidence shows: Women benefit from increased literacy skills in all of the areas cited in this report (including employment and earnings). In addition, as women become more literate, they become more effective as advocates for their children with schools and other public institutions/systems.

English as a Second Language (ESL) (pp. 25–27)

Immigrant poverty is growing at a rapid rate. From 1979 to 1997, the number of poor households headed by immigrants increased by 123%.

Evidence shows: Attendance at ESL programs helps adults improve their chances for employment. It also enables them to better cope with such tasks as reading prescription labels and understanding directions about refills.

Empowerment (pp. 28–30)

A large proportion of those who lack basic skills are embarrassed to admit it. For example, more than 67% of these adults who are married never tell their spouses about their literacy problems. The result is social isolation that prevents many people from making progress.

Evidence shows: Participation in literacy programs leads to a significant increase in participation in other community organizations. Literacy programs are also a steppingstone to participation in higher-level educational programs.

To Learn More...

We now invite you to learn more by either reading the full report or by scanning particular topics of interest to you.

Overview of the Literacy Problem in the United States

The Extent of the Problem

In 1988, the U.S. Congress called on the Department of Education to conduct a survey of the literacy skills of American adults. The result, the National Adult Literacy Survey¹ (NALS), was published in 1993 (a new report is due out in 2004). The NALS used test items that resembled everyday life tasks, and it classified results into five levels.

The NALS highlighted the fact that adult low literacy continues to be a significant problem for this country. It stated that *about 90 million adults in the country have "extremely limited" or "limited" reading and quantitative skills.* Specifically:

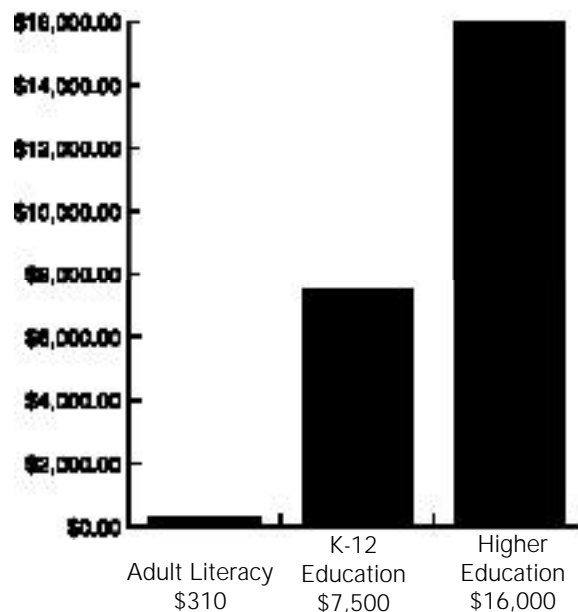
- About 44 million American adults read at Level 1, the lowest level—indicating that they lack the ability to fill out an application, read a food label, or read a simple story to a child.
- Another 46 million or so read at Level 2—indicating that they experience considerable difficulty understanding lengthy texts or solving math problems that involve performing two or more operations in sequence.

Under-funding of Adult Literacy Programs

While the number of adults seeking help grows year by year, government funding for literacy programs remains low, given the extent of the problem. From 1975 through 1999, the number of adults enrolled in programs funded by the U.S. Department of Education's Division of Adult Education and Literacy increased from 1.2 million in 1975 to 4.3 million in 1999, or by about 118,000 per year.²

The total annual government expenditure for adults in literacy education programs is approximately \$310 per enrollee. By contrast, the government spends about \$7,500 per enrollee in the

Annual Government Expenditures per Enrollee



K–12 system and \$16,000 per enrollee in the higher education system.³ As a result, adult literacy programs are often under-funded.

Some Definitions

Adult Basic Education (ABE) programs generally serve adults who read at the eighth-grade level or below. *Adult English as a Second Language* (ESL) programs teach English to adults whose native language is not English. *Family Literacy* programs teach reading and other skills to both parents and their children. *Adult Literacy* programs include those elements of the above programs that deal with lower reading levels (eighth grade and below). *Adult Secondary Education* (ASE) programs generally serve adults who read above the eighth-grade level but who have neither a high school diploma nor high school equivalence (GED) certification. Together, these programs make up the *Adult Education and Literacy System* (AELS).

A common misunderstanding about the AELS is that it is merely a remedial, second-chance system that teaches adults the same skills taught to children in primary and secondary schools. The reality is quite different. In the AELS, adults are taught reading, writing, math, etc., but they are also taught a wide variety of life skills (e.g., how to find a job, parenting, etc.) that are not ordinarily taught to children in the K–12 system, or for that matter, in most colleges.⁴

In addition, these programs are almost always structured to cater to the real needs of adult students. For example, adult literacy programs usually allow students to start and stop instruction as needed, they act as liaisons to social services, or they may coordinate with job skills training programs (and may provide some of this training themselves).

Why Judging Progress Is a Challenge

In making the case that adult literacy programs yield important outcomes for adults and for the larger society, we need to begin by asking a question: Do people in these programs improve their literacy skills significantly?

Answering this question is not the same as answering whether children in school make progress or college students make progress. Marginally literate adults, almost by definition, are people with severe problems. As a consequence, student turnover in programs is very high, and this makes judging the effectiveness of literacy programs a difficult proposition. Here is a list of some of the problems typically faced at different times by low-literate adults:

- personal illness
- family difficulties (substance abuse, illness, violence, dealing with hunger, children's needs, husband who disapproves of wife taking time to learn, etc.)
- needing to move (to a different area/home)
- lack of driver's license, lack of reliable transportation
- poverty, unemployment, loss of welfare
- finding time to deal with social services
- for ESL students, discomfort in being with people who don't speak their language

In addition, many students struggle with the frustration caused by such problems and with the feeling that it's hopeless to expect positive change. Because their time is consumed with their problems, they often feel that taking time to learn is a luxury they can't afford. So, program contact with students is spotty and irregular, and student turnover is very high. When students *do* leave programs, they often do so abruptly, offering programs no opportunity for exit interviews or final testing.⁵ The most needy students are the least likely to stay in a program for any length of time.⁶ Also, programs themselves are almost always under-funded and understaffed, so keeping good records is a real challenge for them.

What Test Scores Show

Of course, students who enter programs but exit quickly make little progress (and this is true for many students, given the problems discussed above). Still, students who stay in a program tend to make steady, significant progress.

Between 1990 and 1994 a large, national evaluation of adult literacy programs was conducted and funded under the Adult Education Act.⁷ The National Evaluation of Adult Education survey⁸ collected data from 2,619 programs. Among the findings:

- Adult Basic Education students who continued in a program from a pretest to a posttest received a mean of 84 hours of instruction, and they attended for an average of 15 weeks. On average, their gain was 15 points on the Test of Adult Basic Education (TABE)—a significant gain. In terms of grade level,⁹ students advanced from an average 6.1 grade level on the TABE to a 7.4 grade level—i.e., they advanced 1.3 grade levels in 15 weeks.
- ESL students received on average 120 hours of instruction and attended 14 weeks between pretests and posttests. Their learning gain on the California Adult Student Assessment System (CASAS) was five points (also a significant gain).

Other data also show impressive gains. For example:

- In 2000–2001, 21,037 Laubach Literacy students advanced at least one literacy level (roughly equivalent to one grade level). This is out of 170,200 students served, of whom many dropped out early for personal reasons. (Note that most Laubach-affiliated programs specialize in working with the most challenging students—those reading below a fifth-grade level.)
- A study of family literacy programs found that adults who remain in classes for at least 150 hours show an average gain in reading (or grade) level of 1.5 years.¹⁰

Other Types of Student Gains

Students who remain in literacy programs tend to make significant progress with literacy. But what other gains do they make?

For 2000–2001, Laubach Literacy programs reported the following student accomplishments:¹¹

- 7,790 students obtained a job or better job
- 5,164 students enrolled for their GED
- 2,298 students completed their GED
- 1,903 students obtained a driver's license
- 1,544 students obtained U.S. citizenship

- 1,309 students voted for the first time

Literacy Volunteers of America, Inc. (LVA) reported similar student gains and added a few additional categories.¹² The 65,231 students they served in 2001 report the following first-time accomplishments, among others:

- 3,338 used a library
- 2,046 read to their children
- 2,084 learned basic computer skills
- 518 obtained a driver's license
- 544 obtained U.S. citizenship
- 540 registered to vote

Adult students themselves tend to report very positive results. For example, 96% of LVA's learners said they were *highly satisfied* with the program (80%) or *moderately satisfied* (16%).¹³ The National Evaluation of Adult Education survey, mentioned earlier, recorded students saying they were helped "a lot" in the following areas:

- reading and writing: 50%
- mathematics: 51%
- speaking and listening: 48%

Demand for Literacy Services

Adult student demand for literacy services remains high. In 2001, Laubach Literacy reported an 11% increase in enrollments over five years. Also in 2001, 63% of Laubach Literacy's affiliates had a waiting list for basic literacy instruction (with an average wait of 1.7 months), and 43% had waiting lists for ESL instruction (with an average wait of 1.5 months).¹⁴

Overall Economic Impact of Literacy Programs

The rest of this report will document evidence that literacy programs produce positive student outcomes in eight areas. But what is the overall *economic impact* of literacy programs? There is a growing body of evidence that indicates substantial economic impacts. For example, one study of family literacy programs¹⁵ concluded that the programs paid back \$7.14 for every one dollar spent. The financial benefits came from:

- increased earnings due to better jobs (which resulted from students' higher educational attainment)
- reduced child-care costs
- additional taxes paid by participants because of higher earnings
- lower criminal justice costs due to lower arrest rates
- savings to crime victims of crimes not committed
- savings to school systems due to the number of students not kept back or not placed in special education

A study of LVA programs¹⁶ produced similar findings: "For every dollar that is spent by LVA, the value created (return) to the overall economy is a multiple of 11; tutors are further improving the multiple to 33 by donating their time."

How Literacy Programs Help Produce Positive Outcomes —

Employment and Earnings

Statement of the Problem

Low Literacy Skills = High Unemployment

There are very few jobs available for those with poor reading, writing, and math skills. The trend toward more highly skilled jobs is clear—a majority of firms report that the recent introduction of new technologies has increased the skill requirements for non-managerial employees. Whereas 60% of the workforce was unskilled in the 1950s, now less than 20% is unskilled.¹⁷ One study indicates that those with the skill levels of a typical high school dropout qualify for only 10% of all new jobs. And those with the skill levels of the typical high school graduate qualify for only 22% of new jobs.¹⁸

An American Management Association survey of member and client companies reinforces this finding. The survey found that (for firms that test for skills below high school graduate level), 34.1% of job applicants lack the literacy skills needed to do the job they seek. Of these “skills-deficient” applicants, about 90% are not hired.¹⁹

The result of this employment situation is, of course, high unemployment for those who lack basic skills. For example, workers with Level 1 (lowest level) quantitative literacy have an unemployment rate of nearly 20%. Those at Level 2 have 12% unemployment.²⁰ Unfortunately, the trend is toward *increased* unemployment for those with low levels of education.²¹

Lack of a High School Diploma = Poor Earnings Prospects

As the statistics above show, those with only a high school diploma often have a very tough time in the job market—but nevertheless, they still tend to do much better in terms of earnings than those who don't have a diploma. High school graduates on average earn about 42% more than those with less than a high school education, and year by year, the gap continues to grow.²² The actual earnings of high school dropouts continue to decline: since 1979, earnings for males who left school before getting a diploma have fallen by 30%, by 21% for females.²³ (Note that the clear implication of this for high school dropouts is that it pays to get high school equivalency certification.)

Employees' Low Literacy Skills = Trouble for Employers

Today, the goal of almost all employers is “high-performance workplaces that integrate technology, work process, and organization...practices that can adapt to changing business conditions.”²⁴ To achieve this, employers must upgrade the basic skills of many employees, and in fact, 50% of Fortune 500 companies underwrite employee basic skills training at an annual cost of \$300 million per year.²⁵ But smaller companies often do not offer basic skills training, and the limited literacy skills of employees cost business and taxpayers \$20 billion annually in lost wages, profits, and productivity.²⁶

According to a National Association of Manufacturers survey report, 40% of manufacturers say they cannot implement new productivity improvements, and they cite workers' insufficient reading, writing, math, and communication skills as a principal reason.²⁷

Outcomes

Besides helping unemployed adult students improve their reading, writing, and math skills, literacy programs almost always help students learn how to find and keep a job. This kind of combination training yields very positive results in terms of employment skills, employment, earnings, and productivity on the job.

Employment Skills

The Conference Board surveyed employers²⁸ and asked them a) what skills employees gained in basic skills programs, and b) in what way their businesses benefited as a result of these programs. Here is some of what was found, with percentages of employers who gave the particular response:

Skills Gained by Employees	Percent of Employers
Greater willingness and ability to learn for life	85
Improved ability to listen to understand, learn, and apply information	84
More positive attitude toward change	84
Better ability to build and work in teams	80
Increased understanding of and ability to use numbers by themselves or in charts and tables	76
Improved capacity to think critically and act logically to evaluate situations, solve problems, and make decisions	73

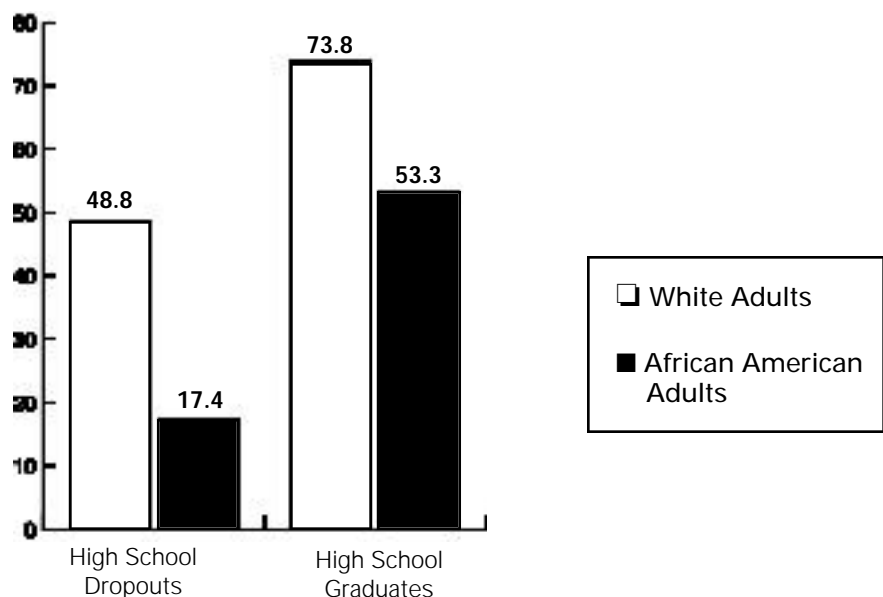
Benefits to Employers	Percent of Employers
Improved employee morale/self-esteem	87
Increased quality of work	82
Improved capacity to solve problems	82
Better team performance	82
Improved capacity to cope with change in the workplace	75
Improved capacity to use new technology	73
More employees participating in job-specific training	73

Student Employment Gains

There have been numerous studies in recent years that have shown that many students who were *unemployed* upon entry into a literacy program were *employed* by the time they left. It is difficult to determine the extent to which their new employment is a direct result of these programs, but it's clear that literacy programs make a significant impact in this area. Here are some typical findings (results vary because programs and populations vary):

- In a nationwide telephone survey of 5,401 adults who had been in adult basic education programs and who had been out of the programs at least six months:²⁹
 - ◊ 37% reported that they had been employed at the time they had entered their program; and
 - ◊ 69% were employed at the time of the survey.
- A study of 294 ABE students who had been unemployed and seeking work when they entered their programs (seven to eight months earlier), and who represented nine New Jersey programs, found a net gain in employment of 16.4%.³⁰
- Another study looked at 15 exemplary family literacy programs and 508 adults who had been out of those programs from one to six years. The study found that 50% of these adults had obtained either a job or a better job.³¹ A different family literacy study looked at adults one year after having completed 12 months in a program. Upon entry into the program, fewer than 10% had been employed; at follow-up, 35% were employed.³²
- Yet another study looked at eight representative literacy programs in Tennessee. It noted, "At the baseline [start of program], 32% of participants were employed, as compared with 48% one year after enrollment in a literacy program."³³
- Hal Beder's careful report on 23 studies of adult literacy outcomes concludes that "...adult literacy education does produce employment-related benefits."³⁴

A Comparison of Rates of Employment by Level of Schooling and Race



There is some evidence that improvement in literacy scores, in and of itself, enhances an adult's employability.³⁵ Also, many studies have shown that those who have a high school diploma or a GED are much more likely to be employed than those without:

- A study done in 1997 showed that employment among white high school *dropouts* was 48.8%, and 17.4% among African-Americans. Employment among white high school *graduates* was 73.8%, and 53.3% among African-Americans.
- National Institute for Literacy figures indicate that a high school diploma or a GED nearly doubles the probability of working and staying employed.³⁷

The clear conclusion is that, for a low-literate, unemployed adult, entering an adult literacy program is a good strategy for finding a job.

Student Earnings Gains

There is also a clear correlation between the amount of education completed and higher earnings, and between higher educational scores and higher earnings. For example:

- The National Center for Educational Quality of the Workforce reports: "Recent research using household surveys of workers suggests that there is an 8% return to workers (in the form of higher wages) for each additional year of schooling."³⁸
- Another study showed: "Skills are an important determinant of earnings... Male and female minority-group members who scored in the upper ranges of the GED had annual earnings in 1995 that were nearly \$1,300 to \$1,400 higher than lower-scoring minority-group members who had a GED."³⁹

Thus, improvements in literacy appear to translate into improvements in earnings.

Productivity Gains

Various surveys indicate that employees' productivity increases as their literacy skills increase:

- One survey found an 8.6% increase in employees' productivity for each additional year of schooling. The survey showed that increasing employees' education levels was a much more effective way of improving overall productivity than other strategies such as increasing employee hours or increasing capital stock.⁴⁰
- Hollenbeck reports on a study done by Gordon and Owens:⁴¹ "A manufacturing firm instituted a regime of English as a Second Language (ESL), statistical process control, basic math, blueprint reading, and cross-training courses and activities over a five-year period (1990 to 1994) and tracked field returns of defective products, scrap rates, sales/employee, performance evaluation results, and number of jobs certified. The authors report substantial positive impacts in all of these areas... The authors indicate that their analysis of the data suggests that 31% of the improvement is due to the basic skills training regime, which would imply a productivity improvement of 1.45%. The average value of shipments per worker over the period appears from the data that are reported to be about \$135,000, so the annual productivity improvement from [ESL and basic math] training might be estimated as approximately \$2,000."

In summary, literacy education is a win-win situation for employees and employers. The programs help adults learn job skills, get jobs, and increase their earnings. They help employers gain more effective and more productive employees.

Welfare and Poverty

Statement of the Problem

The Link Between Low Literacy and Welfare Dependency

High school dropouts and/or adults with literacy problems are much more likely to be on welfare. As was discussed above, there are strong links between low literacy, adults' lack of educational success, and unemployment/poverty:

- The National Institute for Literacy estimates that about 43% of adults with very low literacy skills (Level 1 on the NALS) live in poverty.⁴²
- About 70% of adult welfare recipients have lower level literacy skills (Levels 1 and 2 on the NALS).⁴³
- About 47% of adult welfare recipients have not graduated from high school.⁴⁴
- Individuals ages 25 to 34 who dropped out of high school are *more than three times as likely* to receive public assistance as high school graduates who did not go on to college.⁴⁵

Outcomes

Literacy Programs Help Adults Get Off Welfare

Literacy programs help adults make significant inroads in their fight against welfare dependence. Statistics show that those on welfare frequently lack basic literacy skills. One long-term study of low-income women, for example, found that "almost half of all welfare reliant women had fewer than 12 years of education."⁴⁶ As adults on welfare enter and stay with literacy programs, their welfare reliance tends to decline:

- A study of 15 Even Start family literacy programs showed that 42% of former participants who had received welfare when they enrolled had reduced the amount of public assistance they received.⁴⁷
- The Beder report (the large national study that analyzed data from many different studies) found that, of programs that tracked welfare dependence, 80% reported an overall reduction in welfare dependence by their students.⁴⁸

As with other literacy students, when adults on welfare improve their basic skills, they tend to improve their earnings situation. According to one large study of welfare recipients without high school diplomas, when recipients increase their basic skills, they tend to make substantial improvements in employment, earnings, and self-sufficiency.⁴⁹ In a study of mothers receiving welfare, each additional year of schooling led to approximately a 7% wage increase.⁵⁰

Literacy Programs Help Adults Gain Economic Self-sufficiency

In terms of helping students to get jobs and get off welfare, the most successful literacy programs (for example, one that recorded a 25% increase in students' earnings over five years) have these qualities:⁵¹

- Besides literacy training, they also offer training in life skills, job search, and other work-related skills.
- They have a strong emphasis on helping students find good employment—particularly jobs that pay better than minimum wage and that have the potential for advancement.

Another key to helping adults get off welfare is for programs to provide the support students need to allow them to persist in a program for at least a year. When welfare recipients stay in literacy programs for more than a year, they tend to make substantial gains in skills—comparable to those associated with regular high school attendance. But if students drop out of programs earlier than that, the gains they make are much more meager.⁵²

Health

Statement of the Problem

Marcia Hohn, in a report that summarizes research regarding the link between literacy and health, makes this statement: “Recent studies...have found extensive evidence that low literacy, poor health, and early death are inexorably linked.”⁵³ Pincus and Callahan looked at an array of socioeconomic factors that may correlate with health status (occupation, housing, etc.) and concluded that *educational level* is the most explanatory of the markers they studied (i.e., low educational attainment appears to be a primary factor in poor health).⁵⁴

But what, exactly, is the connection between low literacy skills and poor health? In a series of health studies done in Arizona, Barry Weiss, M.D. (the principal investigator), comments, “Illiteracy (or low literacy) is probably a marker for disconnectedness from society in general.”⁵⁵ Let’s look at how low literacy translates into health problems for individuals (and into problems for society).

Why Do Low-literate Adults Tend to Be Less Healthy than Others?

Many different factors contribute to the relative poor health of adults with literacy problems. For example, low literacy adults:

- may read medication labels incorrectly (and, as a result, sometimes take medication incorrectly)⁵⁶
- are less likely than others to have had a PAP test or blood pressure check⁵⁷
- are less likely than others to have smoke detectors, fire extinguishers, or first-aid kits in their homes⁵⁸
- tend to smoke more, drink more coffee, exercise less, and get hurt on the job more frequently than others⁵⁹
- often have more limited access to health care than others because they lack information about where to go for help and when to seek help⁶⁰
- when contacting managed care organizations on the phone or in writing, tend not to advocate effectively for themselves for insurance coverage of treatments and procedures⁶¹
- tend to make less informed decisions than others regarding treatment options (as technological and pharmacological advances create more options for patients)⁶²
- often can’t participate effectively in two-way communications with providers—making proper diagnosis and treatment difficult⁶³

One study⁶⁴ of 2,659 low-income outpatients⁶⁴ at two public hospitals revealed:

- 26% could not read their appointment slips
- 47% could not understand written directions to take medicine on an empty stomach
- 60% did not understand the standard consent form
- 21% could not understand instructions written at the fourth-grade reading level
- 49%, when reading a hospital financial aid form, could not determine whether they were eligible for free care
- 81% of English-speaking patients age 60 or older had inadequate health literacy (as determined by a standardized test)

Aside from issues of access to health care, low literacy tends to reduce people's chances for good health.

What Specific Health Problems Do Low-literate Adults Tend to Have?

A wide variety of health problems are associated with low literacy. For example:

- One study showed that adults with lower than sixth-grade literacy skills were significantly more likely than others to present with advanced prostate cancer.⁶⁵ It concluded that "low literacy may be a barrier to diagnosis of early-stage prostate cancer."
- Another study found that the lower the patients' literacy scores, the higher the proportion of those who reported a history of heart disease or diabetes.⁶⁶

What Does Low Literacy Cost the Health Care System?

Several studies show that, in general, patients with poor reading skills use more health care resources:

- For one randomly selected group of Medicaid patients "persons with the lowest reading skills had health care expenses that were six times higher than the average for the whole group."⁶⁷
- Another study looked at all adults who stayed overnight at one hospital during one year. It found that those with low health literacy skills "...stayed in the hospital nearly two days longer than adults with higher health literacy skills."⁶⁸
- Yet another study reported that of all patients who came to a hospital, patients with inadequate literacy skills were 52% more likely to be hospitalized than other patients.⁶⁹

Given statistics like these, what are the total health care costs of low literacy? Of course, this is difficult to say, since low literacy correlates with so many other social problems. To answer this question, the National Academy on an Aging Society conducted a study using 1994 data from a nationally representative sample of the U.S. population age 16 and older. The study examined the impact of literacy on the use of health care services. Based on the findings, the report estimated that additional health care expenditures due to low health literacy skills are about \$73 billion annually.⁷⁰

Outcomes

A key question associated with literacy education is this: When adults improve their literacy skills, does their health improve? In general, the answer is yes.

This section will explore the statistics and the relationship between literacy and health.

What Are the Facts: Does Health Status Improve as Literacy Ability Improves?

Rudd, Moeykens, and Colton, in a review of the literature on health and literacy, came to this conclusion: "Death rates for chronic diseases, communicable diseases, and injuries are all inversely related to education for men and women."⁷¹

There is ample evidence that higher literacy skills correlate with better physical health. The connection between health and literacy may be coincidental to other factors, such as income, and many different factors interact. The following section on literacy and early diagnosis, and literacy

and treatment, show that there is likely a *direct* causal connection between literacy and health. Here are a few examples of studies that show the health-literacy link:

- Weiss et al. compared the physical and psychosocial health of adult literacy students with extremely low reading levels to students with higher reading levels. They found that the health of those with low reading levels was poor compared to the health of those in the other group. This relationship continued to be statistically significant even when the authors controlled for sociodemographic characteristics.⁷²
- Baker et al. found that low-literate patients were more likely than patients with adequate literacy skills to report their health as “poor.” The study also found that the correlation between literacy scores and reported level of health was even stronger than the correlation between years of school and reported health.⁷³
- Other studies have found that as literacy levels rise, there are declines in the incidence of particular diseases such as prostate cancer, heart disease, and diabetes.⁷⁴
- In a study of HIV patients, 31% of those with low literacy said their health was fair or poor. In comparison, only 17.8% of HIV patients with good literacy skills reported fair or poor health.⁷⁵

Information like this shows that improving people’s literacy skills can lead to improving their health. Here’s a look at how the two are connected.

What Is the Connection Between Literacy and Early Diagnosis of Disease?

In their review of the literature on health and literacy, Rima Rudd and her colleagues write: “Illiteracy or low literacy, which is often accompanied by feelings of embarrassment or shame, may diminish a person’s capacity to express his or her concerns in our highly literate health care environment.”⁷⁶ A result is that the lower the literacy level, the less patients tend to know about their disease.⁷⁷

We are beginning to see evidence that as people become more literate, they are less afraid to seek help from the health care system. For example, data show that the higher women’s income, the more they use screening mammography, and the more likely they are to be diagnosed with breast cancer at earlier stages.⁷⁸ Rudd et al. speculate that since higher-income women tend to have higher literacy skills than women with lower incomes, it’s possible that literacy level is linked to knowledge of mammography (and of the reasons for it) and with the decision to have breast cancer screening.

What Is the Connection Between Literacy and Self-management of Treatment?

There is good evidence now that the more literate an ill person, the more likely the person is to be well-informed about his or her disease and to manage treatment well:

- In a survey of 402 patients with hypertension and 114 patients with diabetes, researchers found that 48% tested out at low literacy levels. These people, as opposed to most of the others, tended to:
 - ◇ be unable to understand directions for taking medication on an empty stomach;
 - ◇ not understand a standard informed consent document; and
 - ◇ not know what a normal blood sugar reading is (which, according to the authors, is “the

most basic information a diabetic needs to know...This lack of knowledge can be life-threatening").⁷⁹

- In another study of diabetes and literacy, only 20% of those with low literacy had gained optimal blood sugar control, as opposed to 33% of those with higher levels of literacy. The study author, Dr. Dean Schillinger, a professor of medicine at San Francisco General Hospital Center, comments, "Having diabetes and difficulty reading creates a double bind. Diabetes patients rely on a number of tools to manage their disease and prevent serious health problems. For patients with low literacy, it's as though they have received the toolkit, but no instructions."⁸⁰
- In a study of patients who had attended diabetic education classes:
 - ◊ 49% of those with inadequate literacy skills knew the symptoms of hypoglycemia; and
 - ◊ 94% of patients with adequate literacy skills knew the symptoms.⁸¹
- A study of asthma patients showed that, among a variety of factors studied, reading level was the strongest predictor of asthma knowledge score and of knowledge of metered-dose inhaler technique.⁸²
- A study of those with HIV who were on antiretroviral therapy showed that "there was 57% compliance [with the prescribed treatment regimen] among college graduates and only 37% compliance among high-school dropouts."⁸³

These studies indicate that literacy training can help people become healthier: When people become literate, they gain tools that help them understand and deal effectively with illness; i.e., they become much better equipped to understand their medical diagnosis and to follow their treatment regimen.

Do Health Care Costs Go Down as Literacy Rates Rise?

Low-literate adults tend to require and use more medical resources than adults at higher literacy levels. Therefore, helping people become more literate helps them become healthier and, as a result, reduces the costs of medical care.

- In a study of Medicaid participants, those who read at the lowest grade levels (0 to 2) had average annual health care costs of about \$13,000, compared with the average for all Medicaid participants in the study of about \$3,000.⁸⁴
- Another study looked at 958 patients who came into an urban public hospital for emergency treatment. Over a two-year follow-up period, patients with the poorest literacy skills had more outpatient visits and were twice as likely to be admitted to the hospital as those with adequate reading skills. Even after controlling for age, gender, race, self-reported health, socioeconomic status, and health insurance status, higher rates of hospital admission remained for those with low literacy skills.^{85, 86}

It is clear that a more literate society will also be a healthier society and, consequently, a society that incurs significantly fewer health care costs.

Corrections

Statement of the Problem

Released Inmates' Prospects Tend to Be Poor

On December 31, 2000, there were 6,498,562 people in the U.S. prison system (including those on probation and those on parole).⁸⁷ A great number of these people lack adequate literacy skills and, partly because of this, their post-prison prospects are very dim.

Here are the facts:

- 46.5% of prison inmates do not have a high school diploma.⁸⁸
- The average reading level of prison inmates is very low: below the fifth grade in one study,⁸⁹ below eighth grade in another.⁹⁰
- About 67% of inmates can't write a brief letter explaining a billing error, read a map, or understand a bus schedule.⁹¹
- 40% of prisoners do math at Level 1 of the NALS scale, which means, for example, that they are unable to use an order form to calculate the cost of a purchase.⁹²

As many as half of all individuals who read at very low levels are out of the labor force. A large percentage of newly released inmates are only marginally literate, and when prisoners are released, they often join this large group of unemployed.⁹³

Few Low-literate Inmates Get the Literacy Education They Need

Unfortunately, prisons tend to not do enough to improve inmates' post-prison job prospects by improving inmate literacy. In 1999, only 25% of jail jurisdictions offered a basic education program.⁹⁴ Even then, *only about 9% of inmates with low literacy skills ever receive literacy training while in prison.*⁹⁵ The situation is only getting worse:

- The prison population in the U.S. has tripled since 1980.⁹⁶
- Meanwhile, in recent years, more than half the states have cut back their education and training budgets—as voters and politicians have increasingly emphasized punishment over rehabilitation.⁹⁷

Outcomes

Prison Literacy Programs May Be Inmates' Last Chance

As a group, prisoners are among the least literate in our society; their literacy level is even lower than that of the average unskilled laborer.⁹⁸ Barton and Coley, in their study of prisons and education, make this strong statement: "Without training and education, even if they [prisoners] are trying, they're not going to make it when they get out. This is where a whole lot of our youth are these days, especially minority youth. And for many of them, it's their last chance for education."

Prison Education Programs Help Inmates, Reduce Crime, and Lower Costs to Society

The best data we have has to do with education in general in the prisons, rather than literacy training per se. The average literacy rate of prisoners is very low, however, so much of education in prisons is geared toward low literacy students, and we can get a fair idea of the impact of prison literacy education from this data. (The average rate is a combined reading and math score of less than 8.0—i.e., under eighth grade, on the Test of Adult Basic Education.⁹⁹)

Here are some of the things researchers have found:

- **Reincarceration Rates:** A Virginia study looked at a sample of 3,000 inmates. After release, of those who had participated in prison education programs, 20% were reincarcerated, whereas 49% of those who had not been in education programs were reincarcerated.¹⁰⁰ A different, but similar study that looked at data on released inmates in Ohio, Minnesota, and Maryland found a 21% reincarceration rate for education participants, and a 31% rate for non-participants.¹⁰¹
- **Finding Employment:** Inmates who have been in prison education programs are more successful than non-participants at finding gainful employment upon release.¹⁰² The Virginia study (mentioned above) found that only 54.6% of former prisoners on parole who had had no educational programming in prison were employed for a period exceeding 90 days. For paroled inmates who had completed an educational program in prison, the figure was 77.9%.
- **Earnings:** Released prisoners who have been in prison education programs earn more than released non-participants. One study looked at wages reported to state labor departments and found that after one year away from prison, former inmates who had been in prison education programs earned nearly 30% more than inmates who had not been in these programs.¹⁰³
- **Costs:** Prison education programs pay for themselves and then some. Steuer and colleagues looked at data for Maryland and, taking into account reductions in recidivism related to prison education, concluded, "...last year's \$11,700,000 annual state budget for correctional education returned at least \$23,280,000 to the state."¹⁰⁴

The National Institute for Literacy, in its review of the data, concludes, "Research shows that quality education is one of the most effective forms of crime prevention. Educational skills can help deter young people from committing criminal acts and can greatly decrease the likelihood that people will return to crime after release from prison."¹⁰⁵ As with other forms of investment in literacy, investments in prison literacy programs pay off both for the students and for the society as a whole.

Children

Statement of the Problem

Parents' Low Literacy Directly Affects Their Children's Performance in School

There is a direct link between parents' education level and children's performance in school. Studies show that the children of parents who have less than a high school education tend to do poorest on reading tests. Children of high school graduates do considerably better, and children of parents who have education beyond high school do considerably better than that. These differences in test scores have held constant since 1971, and the same differences show up in the scores of third, eighth, and 11th graders.¹⁰⁶

There are many impacts on children beyond educational impacts. One report noted, "Mothers' illiteracy and lack of schooling directly disadvantage their young children. Low schooling translates into poor quality of care for children and then higher infant and child mortality and malnutrition."¹⁰⁷ The impact of adult low-level literacy on children is discussed in more detail in the section on outcomes below.

Outcomes

As Parents Become More Literate, Their Children's School Performance Improves Considerably

One of the most intriguing impacts of improved adult literacy is the impact on children. According to a report by the U.S. Department of Education, "The single most significant predictor of children's literacy is their mother's literacy level."¹⁰⁸ It has been shown that the *best* way to ensure that children become successful in school is to address the literacy needs of the adults in their lives.

As one example of the impact of parents' literacy and language abilities on their children, Jordan, Snow, and Porche cite three separate studies that back up their claim that "Although excellent preschool and kindergarten classrooms can provide children with opportunities to learn and refine these skills [letter identification, phonological awareness, skills in understanding and producing extended discourse, etc.], it is widely acknowledged that linguistically rich home environments contribute more powerfully to the early development of these critical abilities."¹⁰⁹ Adult literacy programs and family literacy programs help create such "linguistically rich home environments."

As this report stressed earlier, literacy programs *do* help adults become more literate; this then has a powerful impact on children. In national evaluations of the Even Start (U.S. Dept. of Education family literacy) program, adults made significant literacy gains. Those who took the CASAS reading and math tests made yearly gains of 4 to 7 points, and adults who took the TABE reading and math tests achieved gains of 20 to 25 points.¹¹⁰ Other evaluations of family literacy programs show that adults also make significant improvements in their oral communications and other relevant skills.¹¹¹ By becoming more literate, parents become role models for their children. When children see their parents reading, *they* want to read. In their study of family literacy programs, Mikulecky and Lloyd discovered that, after six months, older children's book and magazine reading increased by about 40%.¹¹²

Impact of Parents' Changing Attitudes

Adults pass on to children their own expectations about education and achievement. When they feel hopeless, their children lose hope; when they begin to believe in their own ability to change their lives through literacy, their children begin to feel empowered too.¹¹³

A review of 67 research studies on literacy programs found that as parents spend time in adult literacy programs, their attitudes toward education change: The more literate they become, the more value they perceive in education. The more they support their children's learning, the more they become involved in their children's schools. The result is that their children's school achievement jumps.¹¹⁴ The same report found that as parents continue to spend time in literacy programs, their children attend school more regularly, achieve higher IQ scores, and are more likely to complete their educations.¹¹⁵

As parents come to value reading more, they turn off their television more often, visit the library more often, and give their children books as gifts more often.¹¹⁶ Moreover, as parents show dedication to completing their own education, they become positive role models to their children for persisting in the face of difficulties.¹¹⁷

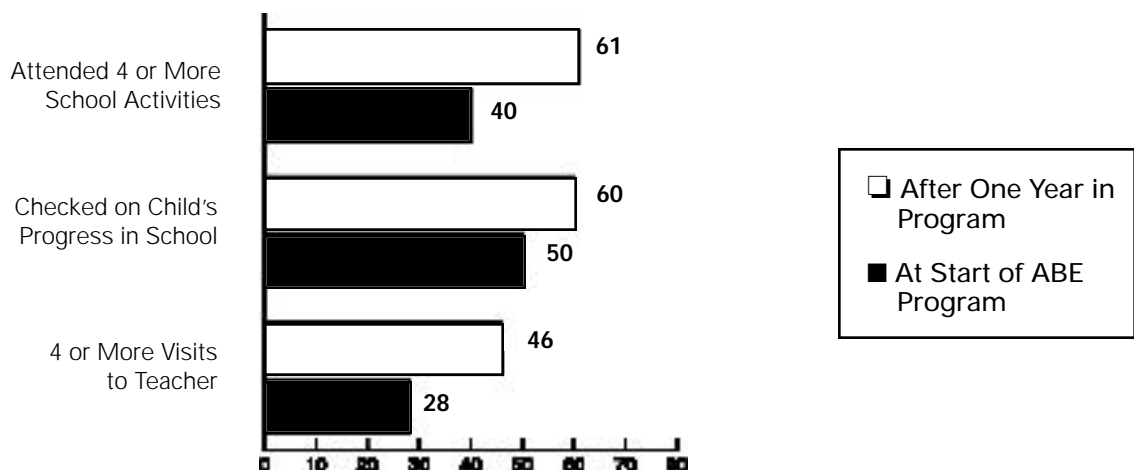
A Pennsylvania Department of Education report on the impact of family literacy programs states, "Elementary school teachers reported that school-age children demonstrated gains in academic areas, were more positive about schooling, exhibited less disruptive behavior in school, and were reading more books."¹¹⁸ Parents' changing attitudes affect their children's attitudes, and as a result, their children do better in school.

Parents Become More Involved in Their Children's Schools

A study of adults in Adult Basic Education programs in Tennessee who had scored below grade level 5.9 on the ABLE test found that, after a year:

- 61% attended four or more school activities (up from 40%)
- 60% checked on a child's progress in school (up from 50%)
- 46% visited a child's teacher four or more times (up from 28% formerly)

Increase in School Interaction by Parents after One Year in an Adult Basic Education Education (ABE) Program



Statistics such as these demonstrate why helping adults learn to read has such a powerful impact on children: Adults gain confidence in themselves and a greater awareness of the potential of education for their children.

This last point is reinforced by one other finding: In family literacy programs, where adults and children see each other learning (and thereby reinforce each other), children tend to show greater test score gains than they do in child-focused programs such as Head Start.¹¹⁹

At Home, Parents Become More Involved in Their Children's Learning

In their review of literacy research, Padak and Rasinski found that reading aloud to children is the single most effective parental practice for enhancing language and literacy development.¹²⁰ Also, according to a U.S. Department of Education report, research has found that children who read every day have the best chance of becoming competent readers. Daily practice at reading increases fluency, and it encourages literacy habits and literacy appreciation.¹²¹

When adults spend time learning in literacy programs, they do, in fact, begin reading to their children more. One five-city study¹²² showed that after half a year in a program:

- Parents read or looked at books with their children 40% more often.
- Parents bought or borrowed books for their children 40% more often.
- Children asked parents to read to them 20% more often.

A New Jersey study¹²³ of parents who had been in ABE programs for about eight months found that:

- 75% reported they helped their children with homework more
- 81% said they talked to their children more about school
- 73% said their children had a better attitude toward school
- 75% said their children were getting better grades

Yet another study found that parents in literacy programs share reading strategies with their children that they have learned in their programs.¹²⁴ There are many studies that show that the higher a mother's education level, the more she will tend to read to her children.¹²⁵

To put it simply, the more parents read, the more their children read. The more children read each day, the higher are their scores on standardized reading tests and the greater their success in school.¹²⁶

Long-term Impacts on Children

When adults enter literacy programs and improve their literacy skills, their children have significant short-term literacy gains. But what of the longer term? Studies show that children's long-term gains are also impressive. Overall, children have fewer nutrition and health problems, drop out of school less, and have fewer teen pregnancies, less joblessness, and less social alienation.¹²⁷

In looking at family literacy programs, one could argue that it's the fact that *children* get training, rather than that their parents get training, that makes the difference. But the evidence contradicts this. For example, Arthur Reynolds of the University of Wisconsin tracked for 16 years about 1,000 disadvantaged minority children in Chicago who had been in family literacy programs. During the same period, he also tracked about 500 similar children who had been in Head Start, preschool, or other child-centered programs. He found that, for children in the family literacy group, high school completion was 30% higher, and these children were less likely to be held back a grade, to drop out, or to be arrested.¹²⁸

Two other longitudinal studies show similar findings. In his follow-up studies, Hayes found that children who had been in family literacy programs "are performing much better than expected for their population in academic and social areas over the long-term."¹²⁹ And Anderson found in her follow-up studies that 94% of the children who had been in family literacy programs had either completed high school, received a GED, or were still in school. Of those who had finished high school or received a GED, 43% were attending college.¹³⁰

There are those who believe that helping adults who lack basic skills has little positive impact on society. This report shows that literacy programs have strong positive impacts in such areas as improved health, independence from welfare, and lower prison inmate recidivism. But even if the best way to help society were to invest in the next generation, there is *no better way to do this* than to invest in the literacy education of parents.

Women

Statement of the Problem

Women, Especially, Are Affected by Problems of Low Literacy

The effects of low literacy fall disproportionately upon women. Worldwide, 1.3 billion people lack basic literacy skills, and of these, *70% are women*.¹³¹ Besides the effects of low literacy discussed above (on health, employment, etc.), low-literate women are also affected in terms of birth control, pregnancy, giving birth, and raising children. As just one example, a study of women under 46 in managed care showed that those with low reading skills “were more likely [than were women of higher reading ability] to...have incorrect information about effective methods of contraception and times when pregnancy risk is highest.”¹³²

Women who have dropped out of high school have particularly low earnings: just 70.1% of the earnings of men with an equivalent amount of education.¹³³ Nearly two-thirds of the minimum-wage workforce is female, and the large majority of these are adults, not teenagers.¹³⁴

Outcomes

Programs Are of Special Help to Women

Positive outcomes for women have been covered in previous sections (as women benefit from the health outcomes, etc. of literacy). Women in the U.S. (as compared to men) are more likely to have low literacy skills, be poor, and be in poor health. Because literacy programs tend to have a majority of female students (in a recent year, ProLiteracy America basic literacy programs had about 53% female students, and ESL programs had 60% female students), these programs are of especial benefit to women. In addition, ProLiteracy America has a *Women in Literacy* program that targets funds directly to programs that help women get job training, participate in women-focused literacy efforts, participate in wellness programs, prevent abuse and exploitation of women, etc.¹³⁵

Pregnancy, Birth, Children

Improved literacy affects reproductive health and infant health. In general, as women become more literate (and as their household income rises as a result), child survival rates rise and the nutrition children receive improves.¹³⁶ In the U.S., as women gain more education, infant mortality rates drop. For women with less than 12 years of education, there are 9.1 deaths for every 1,000 live births. This compares with 6.3 deaths per thousand for women with at least a high school education.¹³⁷

A study of American women who had recently given birth showed that those with less than a high school degree were much more likely than other women (62% vs. 37%) to report that their pregnancy was unplanned. The study’s authors note that “unintended pregnancy is associated with both prematurity and low birth weight, the main contributors to infant mortality.”¹³⁸ In the developing world, the results of education on infant mortality are even more striking. In India, for example, for every 1,000 women, each additional year of education reduces infant deaths by 43.¹³⁹

One report found that as mothers became more literate, they became more effective advocates for their children in their schools, as well as with other public institutions/systems.¹⁴⁰ As discussed in the section on children, and as researcher Thomas Sticht puts it, "...the evidence... argues for a view of the adult education and literacy system as an educational system that *prevents* educational problems of children, rather than as programs that simply offer 'remedial' education to adults."¹⁴¹ Literacy programs make a profound impact on the lives of our most vulnerable citizens, and poor, undereducated women and their children are prime beneficiaries.

English as a Second Language

Statement of the Problem

Immigrants represent an increasing percentage of the poor.

The Special Problem of ESL Students

Low-literate speakers of languages other than English face the additional hurdle of needing to learn English. Today's new immigrants have lower education levels, and they are more likely to be poor and remain poor longer than in the past. From 1979 to 1997, the number of poor households headed by immigrants increased 123%. In 1997, 21.8% of immigrant households were poor, compared with 12% of the native population.¹⁴² According to the Center for Immigration Studies, "The growth in immigrant-related poverty accounted for 75% (3 million people) of the total increase in the size of the poor population between 1989 and 1997."¹⁴³

Learning English is often a daunting long-term task that adds to the burdens of poverty and adjusting to a new culture. On average, it takes immigrants six years to be able to accomplish most of the normal English language communication tasks required of them.¹⁴⁴

Lack of English Affects Access to Health Care

Kate Singleton, in an article for the National Center for ESL Literacy Education, cites another typical problem: "Many immigrants use their children as interpreters [in a medical setting]. This creates problems for the adults who fear losing status with their children, for the healthcare professionals who must deal with a child rather than an adult, and for the children who are put in situations where they are expected to function as adults and to convey intimate health information about their parents."¹⁴⁵

ESL Services Aren't Meeting the Needs

The population of people seeking ESL services is growing faster than any other sector of the adult education and literacy system, and the average wait tends to be considerably longer than for either adult basic or adult secondary education programs.¹⁴⁶ In the 2000 U.S. Census, 21.3 million foreign-born residents indicated that they do not speak English well.¹⁴⁷ In a recent 10-year span, the demand for ESL services more than doubled.¹⁴⁸

Workplace ESL literacy programs, especially, are in high demand. Judy Jameson, of the Center for Applied Linguistics, interviewed a number of ESL program directors regarding recruitment. She found that not only did *none* report any difficulty with recruiting, "most programs reported being swamped with more applicants than they could handle." One company had "carefully planned its program and expected 400 participants on the first day—1,000 persons arrived."¹⁴⁹

As is typical for adult education, government funding for ESL is inadequate to meet the demand. To qualify for free government-sponsored classes, people usually must fit into a particular category; for example, "unemployed," "people being retrained," or "refugees fleeing dangerous homelands." Many millions of immigrants do not fit into these categories and, for them, volunteer services are their best hope for getting help.¹⁵⁰

The large number of immigrants who lack basic skills and who speak English poorly presents a serious problem for the U.S., since the country will be very dependent on them in the future. The National Association of Manufacturers states that, "Current and near-term growth in the labor force will come almost entirely from immigrants and their children."¹⁵¹ Even so, as urgent as the need for ESL services is, *the quantity of ESL services is simply not keeping up with the demand.*¹⁵²

Outcomes

ESL Programs Are How Most Adult Non-English Speakers Learn English

Common sense may indicate that most adults in America whose English is poor learn English through informal conversation with English speakers. However, this impression is wrong. Non-English speakers often have little actual opportunity to practice English. The reality is that the majority of non-English speakers in America learn English through formal school and adult literacy programs.¹⁵³ As stated earlier, the demand for ESL services far outstrips the supply, and the needs of ESL programs are great.

Because of the limited availability of government-sponsored classes, volunteer ESL programs are often the best opportunity for immigrants to receive ESL training. As pointed out in the section on test scores, those who enter and stay in ESL programs *do* improve their English considerably. According to Schlusberg and Mueller (in a report for the National Clearinghouse for ESL Literacy Education¹⁵⁴), volunteer programs serve learners' needs well for several reasons. For one, the relationship between the tutor and learner is a positive one for the learner, and it can enhance the person's desire to stay in the program. In addition, instruction is:

- individualized
- available at an easily accessible location
- on a schedule the student can meet
- available at each student's level of proficiency

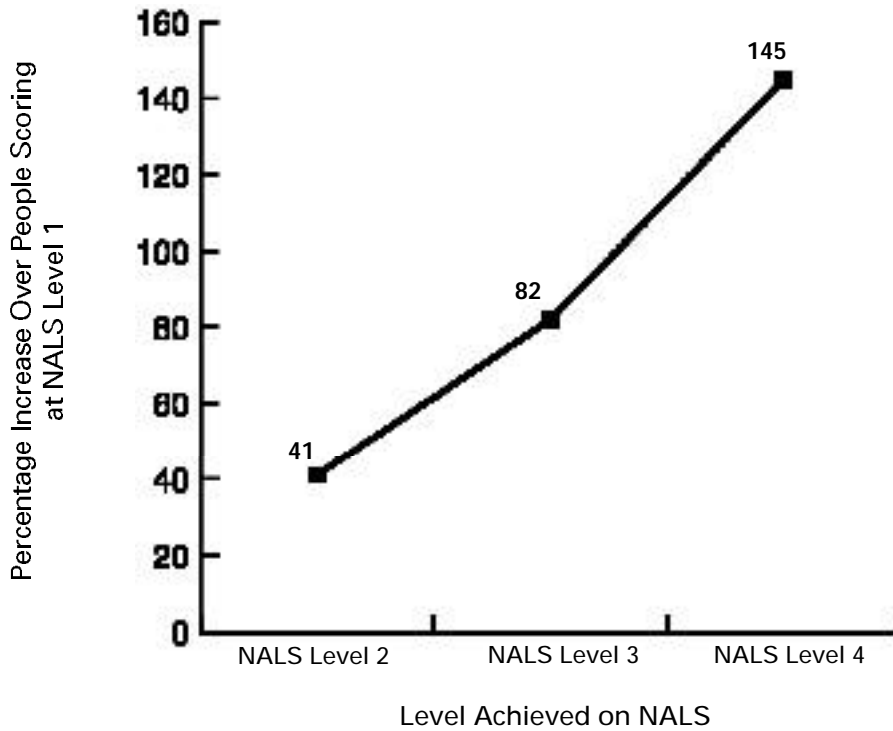
When Adults Succeed in ESL, They Succeed in Society

As the English of those receiving ESL instruction improves, their awareness of English language information and their ability to use this information improves—for example, their ability to read prescription labels, understand instructions regarding prescription refills, and understand the federal penalty for sharing unused medications with others.¹⁵⁵

Those whose English language skills are poor tend to face high unemployment, but ESL programs help them improve their employability. A large national survey followed up with adult ESL students six months after they had left their programs. Thirty-five percent indicated that, because of their ESL training, their employability had increased.¹⁵⁶

The National Adult Literacy Survey (NALS) shows that the higher adults' English language skills are, the higher their earnings. Those who score at the NALS Level 2 earn 41% more than those at Level 1. Those at Level 3 earn 82% more than those at Level 1; those at Level 4 earn 145% more.¹⁵⁷

**Relationship Between Earnings and English Language Skills
as Measured by NALS Scores**



It is therefore very likely that as ESL programs help raise adults' English-language abilities, they also help raise these adults' earnings, as well as their overall success in English-speaking society.

Empowerment

Statement of the Problem

Embarrassment Isolates People

Many people who lack basic skills feel intense embarrassment. Their embarrassment often leads them to hide their problems, avoid getting help when they need it, and avoid participating in community activities that otherwise might help them become more competent.

In one study, one-third of people who tested at the lowest level of literacy would not admit that they had difficulty reading.¹⁵⁸ In the same study (of predominantly indigent African-American patients), of those who tested as having low functional literacy and who admitted having difficulty reading:

- 67.2% had never told their spouses about their literacy problems
- 53.4% had never told their children
- 19% had never told *anyone*¹⁵⁹

The Center for Healthcare Strategies offers this quote from a patient: "When they give you papers to fill out, you want to know what it means before you sign it. And when you can't understand it, you have to go ask somebody. That is embarrassing, that hurts me...sign this, sign that. I don't know what that means."¹⁶⁰ Experiences such as this can destroy self-esteem, and the lack of self-esteem, as much as anything else, can keep people from making progress. What good is participants' self-esteem to the larger society? High self-esteem provides a foundation for all sorts of achievements that are not possible for those with low self-esteem.

Social Development Is Affected When Adults Lack Basic Skills

Adults who lack basic skills are usually isolated from the larger society, and this very isolation is a major problem. Comings, Reder, & Sum write: "A lack of basic skills that narrows an individual's range of opportunities for social participation and reduces the likelihood of a good income can lead to frustration and anger... If we do not invest in the...basic skills of adults now, we will become a nation with two very different populations...[one well-integrated] and one whose lack of language proficiency, education, or basic skills leaves them and their families beyond the reach of opportunity and on the margins of civic and social life."¹⁶¹

Outcomes

A study in Pennsylvania interviewed adults up to 20 years after they had left an ABE program. The former participants agreed almost uniformly on the following: The increase in self-esteem they had first experienced in their program "impelled them to improve themselves and to help others."¹⁶² According to Royce and Gacka, authors of the study, "Self-esteem...is the spark-plug that ignites self-efficacy and social action. Having acquired basic skills and self-esteem, participants strove for practical goals that included higher education and vocational training, secure employment, and enhanced financial status."

Literacy Programs Enhance Participants' Self-Esteem

Hal Beder's report on literacy programs' outcomes research makes this statement near the end: "Of all the evidence presented in this study, the evidence that adult literacy education produces gains in positive self-image...is the strongest." ¹⁶³ Beder goes on to state that the gains reported were usually quite large. Other authors report similar findings. For example, Mary Bingham writes of her Tennessee study, "There was a significant increase in the longitudinal study participants' self-esteem one year after enrollment in literacy programs." ¹⁶⁴

Literacy Programs Help with Achieving Personal Goals

As adults in literacy programs learn they can succeed, and as their feelings of self-esteem grow, they become able to achieve personal goals such as: "read books to my child," or "open a bank account." Although such achievements may not seem important to the larger society, the reality is that one thing leads to another. For example, once a parent learns to feel confident reading to a child, he or she may begin helping with homework, attending PTA, attending community action meetings, and then using the network he or she is building—to find a job, help others who are struggling, and so forth. Learners themselves say that, above all, participation in adult education "builds their sense of self," and they say that "changes in their lives are inter-related." ¹⁶⁵

Beder's report finds that most literacy programs have a positive impact on personal goal attainment. Beder goes on to comment that attainment of personal goals is what keeps adults coming back to literacy programs. ¹⁶⁶ Even if, for example, adults don't improve their work situation in the short term, the fact that they are meeting their own goals is far from trivial for society. It is what gives downtrodden people hope that there can be a better future for them—and what convinces them that they should persist.

Literacy programs are very successful in helping adults achieve the goals they set for themselves. One study ¹⁶⁷ asked students the extent to which volunteer literacy programs have been the primary source for enabling them to meet personal goals. The following percentages of students reported that the programs were the primary or entire source of achieving improvements in their:

- parent/family role: 66%
- worker role: 81%
- citizen role: 76%

Each year students list their achievements, and many thousands of them report, for example, that they have obtained a job, enrolled for their GED, obtained a driver's license, gained citizenship, or voted. ¹⁶⁸ Examples of other personal achievements are reported in Bingham's Tennessee study, such as paying bills oneself, working with numbers on the job, and using the public library more often. ¹⁶⁹ Again, activities such as these should be seen as students' steps along the way to becoming effective, contributing citizens.

Social Development

Literacy programs help low-literate adults develop the self-confidence and social skills they desperately need to improve their lives. In a review of evaluations of family literacy programs, Padak, Sapin, and Baycich found that "...adults in family literacy programs experience personal growth and social development as well as academic gains... They exhibit more confidence and

more awareness of social practices... Increased self-esteem enables adults to engage in self-advocacy and risk-taking, which are necessary to learning... Once these initially wary adults learned that...making mistakes was not a punishable offense, they were willing to risk trying out some of the strategies recommended by program staff and guest speakers." ¹⁷⁰

Statistics from a variety of studies show that, in fact, participation in literacy programs leads to a significant increase in participation in other community organizations. One study looked at 36 adult literacy classes from four different adult basic education systems. After six months in a program, 12% of students said they had participated in community organizations. After a year, however, the number was up to 31%.¹⁷¹ In the Bingman study¹⁷² of adult literacy students one year after they had entered programs, the authors list such changes in social participation as:

- voter registration increased 13%
- involvement in social/sports activities rose from 7% to 17%
- involvement in PTA activities rose from 16% to 23%

People with more education are more likely to vote. The percentage of college graduates who vote is more than double the percentage of high school dropouts who vote.¹⁷³ It can be generalized that as people's horizons broaden through education, their desire and ability to be part of the larger world increases.

Further Education

Research consistently shows that literacy programs, for a large number of students, are a steppingstone to participation in higher-level educational programs. Part of the reason for this is that for many adults a literacy program represents their first educational success, after years of failure in schools. With this success, adults learn to feel comfortable in a school setting, and they gain confidence to seek higher levels of education.¹⁷⁴

One study showed that a year after completing a family literacy program, 66% of adults were either in some kind of educational program, planning to enroll in one, or working.¹⁷⁵ A study of 30 family literacy sites across the country found that 54% of those who had been seeking a GED actually received one (or its equivalent).¹⁷⁶ Another follow-up study of 15 programs had a figure of 62% GED completion for those seeking a GED, with another 40% of former students enrolled in higher education or other training program (obviously, some of these are also included in the figure for GED completion).¹⁷⁷ Beder's review of the research on adult literacy outcomes found that all studies that measured continued education found a positive impact on further education.¹⁷⁸

Conclusion

As this report illustrates, there is a growing body of research that shows that adults who enroll and persist in literacy programs do improve their literacy skills.

More importantly, the research shows that gains in literacy skills impact the lives of individuals in many positive ways. These individuals are better able to:

- obtain a job or a better-paying job
- be more productive employees
- adapt to changing needs in the workplace
- achieve independence without relying on welfare
- lead healthier lives
- manage their health
- access quality health care when they need it
- succeed in society without resorting to criminal activity
- ensure that their children succeed in school
- raise healthier children who are less likely to be socially alienated
- engage in responsible family planning and bear healthier children
- have a positive self-image
- exercise their rights (e.g., voting) as citizens

When millions of adults lack the ability to do these things, society as a whole suffers through decreased productivity, increased health care costs, higher incidences of welfare dependency, and increased pressure on schools when children come to class ill-prepared for learning.

In summary:

1. Participation in a literacy or adult education program can significantly improve an adult's literacy skills.
2. Participation in an adult literacy program improves an individual's ability to be a more effective worker, family member, and community member.
3. Society benefits when its members become more literate.

Resources

Overview of the Literacy Problem in the United States

- ¹ Kirsch, I. et al., *Adult Literacy in America*, Washington, D.C.: U.S. Dept. of Education, Natl. Center for Education Statistics, 1993.
- ² Sticht, T., *The Adult Education and Literacy System (AELS) in the United States: Moving from the Margins to the Mainstream of Education*, Fredericton, New Brunswick, Canada: Natl. Adult Literacy Database, 2000. Note that the reported number of adults enrolled has declined in more recent years, but Sticht argues persuasively that the drop is due to the inability of some local programs to comply with the federal government's new reporting requirements (and these programs have dropped out of the federal grants program as a consequence). The actual number of adults seeking help almost certainly continues to rise. See: "Performance Report to Congress Indicates Huge Enrollment Drop," in *Report on Literacy Programs*, June 5, 2000.
- ³ Ibid.
- ⁴ Ibid.
- ⁵ Bingman, M. et al., *Documenting Outcomes for Learners and their Communities: A Report on a NCSALL Action Research Project*, NCSALL Reports #20, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 2002.
- ⁶ Padak, N., Sapin, C., & Baycich, D., *A Decade of Family Literacy: Programs, Outcomes, and Future Prospects*, Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, 2002.
- ⁷ Cited in Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.
- ⁸ Young, M., Fitzgerald, N., & Morgan, M., *National Evaluation of Adult Education: Executive Summary*, Arlington, VA: Development Associates, 1994.
- ⁹ Laubach Literacy Action, *A Year's Work in Literacy: 2000-2001 Statistical Report*, Syracuse, NY: Laubach Literacy Action, 2001.
- ¹⁰ National Center for Family Literacy, *The Power of Family Literacy*, Louisville, KY: NCFL, 1994.
- ¹¹ Laubach Literacy Action, *A Year's Work in Literacy: 2000-2001 Statistical Report*, Syracuse, NY: Laubach Literacy Action, 2001.
- ¹² Literacy Volunteers of America, *Profile of Adult Students and Volunteers-2001*, Syracuse, NY: LVA, 2002.
- ¹³ A.T. Kearney, *Literacy Volunteers of America, Inc., Economic Impact Analysis Project Report*, Syracuse, NY: Literacy Volunteers of America & Chicago, IL: A.T. Kearney, 1999.
- ¹⁴ Laubach Literacy Action, *A Year's Work in Literacy: 2000-2001 Statistical Report*, Syracuse, NY: Laubach Literacy Action, 2001.
- ¹⁵ Stanfield, R., *Chicago's Child-Parent Centers: Proving the Value of Early Childhood Education in the Real World*, Baltimore, MD: Annie E. Casey Foundation, 2002.
- ¹⁶ A.T. Kearney, *Literacy Volunteers of America, Inc., Economic Impact Analysis Project Report*, Syracuse, NY: Literacy Volunteers of America & Chicago, IL: A.T. Kearney, 1999.

How Literacy Programs Help Produce Positive Outcomes

Employment and Earnings

- ¹⁷ Stuart, L. & Dahm, E., *21st Century Skills for 21st Century Jobs*. Washington, DC: U.S. Dept. of Commerce, U.S. Dept. of Education, U.S. Dept. of Labor, Natl. Institute of Literacy, & the Small Business Administration, 1999.
- ¹⁸ Carnevale, A. & Desrochers, D., *The Missing Middle: Aligning Education and the Knowledge Economy*. Paper presented at "Preparing America's Future: The High School Symposium" sponsored by the Office of Vocational Education, U.S. Dept. of Education, Washington, DC, 2002.
- ¹⁹ American Management Association, *2001 AMA Survey on Workplace Testing: Basic Skills, Job Skills, Psychological Measurement: Summary of Key Findings*, New York, NY: American Management Association, 2001.
- ²⁰ Decker, P., *Findings from Education and the Economy: An Indicators Report*. Washington, DC: U.S. Dept. of Education, 1997.
- ²¹ Ibid.
- ²² National Institute for Literacy, *National Literacy Summit 2000 Foundation Paper*, Washington, DC: Natl. Institute for Literacy, 2000.
- ²³ Tyler, J., Murnane, R., & Willett, J., *Cognitive Skills Matter in the Labor Market, Even for School Dropouts*, NCSALL Reports #15, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 2000.
- ²⁴ American Society of Training and Development (ASTD), *Responding to Workplace Change*, 1997.
- ²⁵ The Ohio Literacy Resource Center, *Adult Literacy Fact Sheet: The Economics of Literacy*, 1999.
- ²⁶ Ibid.
- ²⁷ *The Skills Gap 2001*, The Natl. Assn. of Manufacturers, Andersen, & Center for Workforce Success, 2001.
- ²⁸ Bloom, M. & Lafleur, B., *Turning Skills into Profit: Economic Benefits of Workplace Education Programs*, New York, NY: The Conference Board, 1999.
- ²⁹ Young, M., Fitzgerald, N., & Morgan, M., *National Evaluation of Adult Education: Executive Summary*, Arlington, VA: Development Associates, 1994.
- ³⁰ Darkenwald, G., & Valentine, T., *Outcomes and Impact of Adult Basic Education*, New Brunswick, NJ: Rutgers University, Center for Adult Development, 1984.
- ³¹ Hayes, A., *The Power of Even Start Family Literacy: A Summary of Findings from a Follow-Up Study*, Louisville, KY: Natl. Center for Family Literacy, 1997.
- ³² National Center for Family Literacy, *Follow-up Study of the Impact of the Kenan Trust Model for Family Literacy*, Louisville, KY: Natl. Center for Family Literacy, 1991.
- ³³ Bingman, M. et al., *Changes in Learners' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee*, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.
- ³⁴ Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.
- ³⁵ Decker, P., *Findings from Education and the Economy: An Indicators Report*, Washington, DC: U.S. Dept. of Education, 1997.

- ³⁶ U.S. Dept. of Education, *Condition of Education*, Washington, D.C.: U.S. Dept. of Education, 1999.
- ³⁷ Cited in National Center for Family Literacy, *Research: Literacy Facts & Figures*, Louisville, KY: Natl. Center for Family Literacy, 2002.
- ³⁸ *The Other Shoe: Education's Contribution to the Productivity of Establishments: A Second Round of Findings from the EQW National Employer Survey*, Philadelphia, PA: Natl. Center on the Educational Quality of the Workforce, 1995.
- ³⁹ Tyler, J., Murnane, R., & Willett, J., *Cognitive Skills Matter in the Labor Market, Even for School Dropouts*, NCSALL Reports #15, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 2000.
- ⁴⁰ *The Other Shoe: Education's Contribution to the Productivity of Establishments: A Second Round of Findings from the EQW National Employer Survey*, Philadelphia, PA: Natl. Center on the Educational Quality of the Workforce, 1995.
- ⁴¹ Hollenbeck, K., *A Benefit-Cost Framework for Assessing the Economic Payoffs to Workplace Literacy Training*, Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1996.

Welfare and Poverty

- ⁴² National Institute for Literacy, *Literacy, It's a Whole New World*, Washington, DC: Natl. Institute for Literacy, 1998.
- ⁴³ Epstein, M., *Adult Literacy Fact Sheet: Literacy and Dependency*, Kent, OH: The Ohio Literacy Resource Center, 1997.
- ⁴⁴ Barton, P. & Jenkins, L., *Literacy and Dependency: The Literacy Skills of Welfare Recipients in the United States*, Princeton, NJ: Educational Testing Service, 1995.
- ⁴⁵ U.S. Dept. of Education study ("The Condition of Education," 1998), cited in *Research: Literacy Facts & Figures*, Louisville, KY: Natl. Center for Family Literacy, 2002.
- ⁴⁶ Edin, K. & Lein, L., *Making Ends Meet: How Single Mothers Survive Welfare and Low-Wage Work*, New York, NY: Russell Sage Foundation, 1997.
- ⁴⁷ Hayes, A., *The Power of Even Start Family Literacy: A Summary of Findings from a Follow-Up Study*, Louisville, KY: Natl. Center for Family Literacy, 1997.
- ⁴⁸ Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.
- ⁴⁹ Bos, J. et al., *Improving Basic Skills: The Effects of Adult Education in Welfare-to-Work Programs*, Washington, D.C.: U.S. Dept. of Education, 2002.
- ⁵⁰ Corcoran, M. & Loeb, S., "Will Wages Grow with Experience for Welfare Mothers?" in *Focus*, Vol. 20, No. 2, Madison, WI: Institute for Research on Poverty, 1999.
- ⁵¹ Scrivener, S. et al., *The National Evaluation of Welfare-to-Work Strategies: Implementation, Participation Patterns, Costs, and Two-Year Impacts of the Portland (Oregon) Welfare-to-Work Program*, Washington, DC: U.S. Dept. of Health and Human Services and U.S. Dept. of Education, 1998.
- ⁵² Bos, J. et al., *Improving Basic Skills: The Effects of Adult Education in Welfare-to-Work Programs*, Washington, D.C.: U.S. Dept. of Education, 2002.

Health

- ⁵³ Hohn, M., *Empowerment Health Education in Adult Literacy: A Guide for Public Health and Adult Literacy Practitioners, Policy Makers and Funders*, Lawrence, MA: System for Adult Basic Education Support, 1998.
- ⁵⁴ Cited in Hohn (above). Pincus, T. & Callahan, L., "What Explains the Association Between Socioeconomic Status and Health?", in *Advance*, Vol. 11, No. 1, 1995.
- ⁵⁵ Jenks, S., "Researchers Link Low Literacy to High Health Care Costs," in *Journal of the National Cancer Institute*, Vol. 84, No. 14, 1992.
- ⁵⁶ Perrin, B., "Literacy and Health: Making the Connection," in *Health Promotion*, Vol. 28, No. 1, 1989.
- ⁵⁷ Ibid.
- ⁵⁸ Ibid.
- ⁵⁹ Ibid.
- ⁶⁰ Williams, M. et al. (1995). "Inadequate Functional Health Literacy Among Patients at Two Public Hospitals," in *Journal of the American Medical Association*, 274 (21), 1995.
- ⁶¹ Gazmararian, J. et al. "A Multivariate Analysis of Factors Associated with Depression: Evaluating the Role of Health Literacy as a Potential Contributor," in *Archives of Internal Medicine*, No. 160, 2000.
- ⁶² Ibid.
- ⁶³ Pfizer, *Health Literacy Initiative*, Pfizer Inc., 2002.
- ⁶⁴ Williams, M. et al., "Inadequate Functional Health Literacy Among Patients at Two Public Hospitals," in *Journal of the American Medical Association*, 274, 1995.
- ⁶⁵ Bennett, C. et al., "Relation Between Literacy, Race, and Stage of Presentation Among Low-income Patients with Prostate Cancer," in *Journal of Clinical Oncology*, Vol. 16, No. 9, 1998.
- ⁶⁶ TenHave, T. et al., "Literacy Assessment in a Cardiovascular Nutrition Education Setting," in *Patient Education and Counseling*, Vol. 31, No. 2, 1997.
- ⁶⁷ Kefalides, P., "Illiteracy: The Silent Barrier to Health Care," in *Annals of Internal Medicine*, Philadelphia, PA: American Society for Internal Medicine, 16 Feb., 1999.
- ⁶⁸ Center for Health Care Strategies, *Low Health Literacy Skills Contribute to Higher Utilization of Health Care Services*, Lawrenceville, NJ: Center for Health Care Strategies, 1999.
- ⁶⁹ Williams, M. et al., "Inadequate Functional Health Literacy Among Patients at Two Public Hospitals," in *Journal of the American Medical Association*, 274, 1995.
- ⁷⁰ National Academy on an Aging Society, *Low Health Literacy Skills Contribute to Higher Utilization of Health Care Services*, Washington, D.C.: Natl. Academy on an Aging Society, 1999.
- ⁷¹ Rudd, R., Moeykens, B., & Colton, T., "Health and Literacy: A Review of Medical and Public Health Literature," in Comings, J., Garner, B. & Smith, C., *The Annual Review of Adult Learning and Literacy*, Vol. 1, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.
- ⁷² Weiss, B. D. et al., "Health status of illiterate adults: Relation between literacy and health status among persons with low literacy skills," in *Journal of the American Board of Family Practice*, Vol. 11, No. 3, 1992.
- ⁷³ Baker, D. et al., "The Relationship of Patient Reading Ability to Self-Reported Health and Use of Health Services," in *American Journal of Public Health*, Vol. 87, No. 6, 1997.

⁷⁴ See footnotes for Bennett, C. et al., and for TenHave, T. et al. Another study of 408 people with Type II diabetes (reported in the *Journal of the American Medical Association*) found that 36 percent of the study participants with inadequate health literacy had diabetic retinopathy, compared to 19 percent of the people with adequate health literacy. Diabetic retinopathy is an eye condition that can be a precursor to blindness. (Cited in Yahoo! News, July 23, 2002: "Low Literacy Linked to Diabetes Complications.")

⁷⁵ Recer, P., "Education Helps Patient Health," in the *Washington Post*, July 23, 2002 (the article reported on a RAND study).

⁷⁶ Rudd, R., Moeykens, B., & Colton, T., "Health and Literacy: A Review of Medical and Public Health Literature," in Comings, J., Garner, B., & Smith, C., *The Annual Review of Adult Learning and Literacy*, Vol. 1, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

⁷⁷ Baker, D. et al., "The Relationship of Patient Reading Ability to Self-Reported Health and Use of Health Services," in *American Journal of Public Health*, Vol. 87, No. 6, 1997.

⁷⁸ Davis, T. et al., "How Poor Literacy Leads to Poor Health Care," in *Patient Care*, 1996.

⁷⁹ Williams, M. et al., "Relationship of Functional Health Literacy to Patients' Knowledge of their Chronic Disease," in *Archives of Internal Medicine*, Vol. 158, No. 2, 1998.

⁸⁰ Yahoo! News, "Low Literacy Linked to Diabetes Complications," in *Yahoo! News*, July 23, 2002.

⁸¹ Parker, R. et al. "The Test of Functional Health Literacy in Adults: A New Instrument for Measuring Patients' Literacy Skills," in *Journal of General Internal Medicine*, 1995.

⁸² Williams et al., "Inadequate Literacy Is a Barrier to Asthma Knowledge and Self-Care," in *Chest*, Vol. 114, No. 4, 1998.

⁸³ Recer, P., "Education Helps Patient Health," in the *Washington Post*, July 23, 2002.

⁸⁴ Weiss, B., "Hidden problems: low literacy," in Weiss B. ed., *20 Common Problems in Primary Care*, New York, NY: McGraw-Hill Book Co., 1999.

⁸⁵ Kefalides, P., "Illiteracy: The Silent Barrier to Health Care," in *Annals of Internal Medicine*, Philadelphia, PA: American Society for Internal Medicine, 16 Feb., 1999.

⁸⁶ Baker, D. et al., "Health Literacy and the Risk of Hospital Admission," in *Journal of General Internal Medicine*, Vol. 13, No. 12, 1998.

Corrections

⁸⁷ National Institute for Literacy, *Correctional Education Facts*, Washington, D.C.: Natl. Institute for Literacy, 2002.

⁸⁸ National Center for Family Literacy, *Research: Literacy Facts & Figures*, Louisville, KY: Natl. Center for Family Literacy, 2002.

⁸⁹ Langley, P., "Corrections Education," in *Learning Profiles*, Salt Lake City, UT: Utah State Office of Education, 1999.

⁹⁰ Hull, K. et al. "Analysis of Recidivism Rates for Participants of the Academic/Correctional/Transition Programs Offered by the Virginia Department of Correctional Education," in *Journal of Correctional Education*, Vol. 51, No. 2, Lanham, MD: Correctional Education Association, 2000.

⁹¹ Barton, P. & Coley, R., *Captive Students: Education and Training in America's Prisons*, Princeton, NJ: Educational Testing Service, 1996.

⁹² Ibid.

⁹³ Kirsch, I. et al., *Adult Literacy in America*, Washington, D.C.: U.S. Dept. of Education, National Center for Education Statistics, 1993.

⁹⁴ National Institute for Literacy, *Correctional Education Facts*, Washington, D.C.: National Institute for Literacy, 2002.

⁹⁵ Langley, P., "Corrections Education," in *Learning Profiles*, Salt Lake City, UT: Utah State Office of Education, 1999.

⁹⁶ Barton, P. & Coley, R., *Captive Students: Education and Training in America's Prisons*, Princeton, NJ: Educational Testing Service, 1996.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Hull, K., et al., "Analysis of Recidivism Rates for Participants of the Academic/Correctional/Transition Programs Offered by the Virginia Department of Correctional Education," in *Journal of Correctional Education*, Vol. 51, No. 2, Lanham, MD: Correctional Education Association, 2000.

¹⁰⁰ Ibid.

¹⁰¹ Steurer, S., Smith, L., & Tracy, A., *The Three State Recidivism Study*, Lanham, MD: Correctional Education Association, 2001.

¹⁰² National Institute for Literacy, *Fact Sheet: Corrections Education*, Washington, DC: Natl. Institute for Literacy, 2001.

¹⁰³ Steurer, S., Smith, L., & Tracy, A., *The Three State Recidivism Study*, Lanham, MD: Correctional Education Association, 2001.

¹⁰⁴ Ibid.

¹⁰⁵ National Institute for Literacy, *Fact Sheet: Corrections Education*, Washington, DC: Natl. Institute for Literacy, 2001.

Children

¹⁰⁶ Hayes, A., "High-Quality Family Literacy Programs: Child Outcomes and Impacts," in *FLA Connecting: The World of Family Literacy*, #4, Louisville, KY: Family Literacy Alliance, 2002.

¹⁰⁷ World Bank, *Engendering Development Through Gender Equality in Rights, Resources, and Voice*, Washington, D.C.: The World Bank, 2001.

¹⁰⁸ America Reads: Start Early, Finish Strong, *Raising Readers: The Tremendous Potential of Families*, Washington, DC: U.S. Dept. of Education, 1999.

¹⁰⁹ Jordan, G., Snow, C., & Porche, M., "Project EASE: The Effect of a Family Literacy Project on Kindergarten Students' Early Literacy Skills," in *Reading Research Quarterly*, Vol. 35, No. 4, International Reading Association, 2000.

¹¹⁰ St. Pierre, R. et al., *National Evaluation of the Even Start Family Literacy Program*, Washington, DC: U.S. Dept. of Education Planning and Evaluation Service, 1998.

¹¹¹ Padak, N., Sapin, C., & Baycich, D., *A Decade of Family Literacy: Programs, Outcomes, and Future Prospects*, Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, 2002.

¹¹² Mikulecky, L. & Lloyd, P., *Parent-child Interactions in Family Literacy Programs*. (Paper presented at NCFL conference), Louisville, KY: Natl. Center for Family Literacy, 1995.

¹¹³ Fingeret, H., 1990, cited in America Reads: Start Early, Finish Strong, *Raising Readers: The Tremendous Potential of Families*, Washington, DC: U.S. Dept. of Education, 1999.

- ¹¹⁴ Padak, N. & Rasinski, T., *Family Literacy Programs: Who Benefits?* Kent, OH: Ohio Literacy Resource Center, 1997.
- ¹¹⁵ Ibid.
- ¹¹⁶ Fletcher, J. & Lyon, G., "Reading: A Research-Based Approach," in *What's Gone Wrong in America's Classrooms*, ed. Evers, W., Stanford, CA: Hoover Institution Press, 1998.
- ¹¹⁷ Padak, N., Sapin, C., & Baycich, D., *A Decade of Family Literacy: Programs, Outcomes, and Future Prospects*, Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, 2002.
- ¹¹⁸ Van Horn, B., Kassab, C., & Grinder, E., *Pennsylvania's Family Literacy Programs: Results of a Statewide Evaluation 1998-1999*, Harrisburg, PA: Bureau of Adult Basic & Literacy Education, Pennsylvania Dept. of Education, 2000.
- ¹¹⁹ Hayes, A., "High-Quality Family Literacy Programs: Child Outcomes and Impacts," in *FLA Connecting: The World of Family Literacy*, #4, Louisville, KY: Family Literacy Alliance, 2002.
- ¹²⁰ Padak, N. & Rasinski, T., *Family Literacy Programs: Who Benefits?* Kent, OH: Ohio Literacy Resource Center, 1997.
- ¹²¹ *The NAEP 1998 Reading Report Card: National & State Highlights*, Washington, DC: Office of Educational Research and Improvement, U.S. Dept. of Education, 1999.
- ¹²² Mikulecky, L. & Lloyd, P., *Parent-child Interactions in Family Literacy Programs*. (Paper presented at NCFL conference), Louisville, KY: Natl. Center for Family Literacy, 1995.
- ¹²³ Darkenwald, G. & Valentine, T., *Outcomes and Impact of Adult Basic Education*, New Brunswick, NJ: Rutgers University, Center for Adult Development, 1984.
- ¹²⁴ Handel's 1999 study, cited in Padak, N., Sapin, C., & Baycich, D., *A Decade of Family Literacy: Programs, Outcomes, and Future Prospects*, Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, 2002.
- ¹²⁵ For example, West, J., *America's Kindergartners*, Washington, DC: Natl. Center for Education Statistics, 2000.
- ¹²⁶ *The NAEP 1998 Reading Report Card: National & State Highlights*, Washington, DC: Office of Educational Research and Improvement, U.S. Dept. of Education, 1999.
- ¹²⁷ Padak, N. & Rasinski, T., *Family Literacy Programs: Who Benefits?* Kent, OH: Ohio Literacy Resource Center, 1997.
- ¹²⁸ Reynolds, A. et al., *Age 21 Cost-Benefit Analysis of the Title 1 Chicago Child-Parent Centers*, Madison, WI: Institute for Research on Poverty, 2002.
- ¹²⁹ Hayes, A., "High-Quality Family Literacy Programs: Child Outcomes and Impacts," in *FLA Connecting: The World of Family Literacy*, #4, Louisville, KY: Family Literacy Alliance, 2002.
- ¹³⁰ Cited in Padak, Sapin, & Baycich, 2002, op. cit.: Anderson, J., *Families Learning Together in Colorado*, Denver, CO: Office of Adult Education, Colorado State Dept. of Education, 1994.

Women

- ¹³¹ Laubach Literacy Action, *Women in Literacy, Women in Action*, Syracuse, NY: Laubach Literacy Action, 2002.
- ¹³² Gazmararian, J., Parker, R., & Baker, D., "Reading Skills and Family Planning Knowledge and Practices in a Low-income Managed-care Population," in *Obstetrics & Gynecology*, Vol. 92, No. 2, 1999.
- ¹³³ Waggoner, D. (editor), "Earnings of Women Workers Still Far Behind Those of Men," in *Numbers and Needs*, Vol. 8, No. 3, 1998.

- ¹³⁴ Institute for Women's Policy Research, *Women and the Minimum Wage*, Washington, D.C.: Institute for Women's Policy Research, 1995.
- ¹³⁵ ProLiteracy America, *Women in Action (fact sheet)*, Syracuse, NY: ProLiteracy America, 2002.
- ¹³⁶ World Bank, *Engendering Development Through Gender Equality in Rights, Resources, and Voice*, Washington, D.C.: The World Bank, 2001.
- ¹³⁷ Annie E. Casey Foundation, *State Trends: Conditions of Babies and their Families Across the Nation (1990-1998) – a Child Trends/Kids Count Special Report*, Baltimore, MD: Annie E. Casey Foundation, 2001.
- ¹³⁸ Parker, R. et al., "Literacy and Contraception: Exploring the Link," in *Obstetrics and Gynecology*, Vol. 88, No. 3, 1996.
- ¹³⁹ Sperling, G., talk on "Universal Education" for American Educational Research Association at the Library of Congress, July 19, 2002.
- ¹⁴⁰ Annie E. Casey Foundation, *State Trends: Conditions of Babies and their Families Across the Nation (1990-1998) – a Child Trends/Kids Count Special Report*, Baltimore, MD: Annie E. Casey Foundation, 2001.
- ¹⁴¹ Sticht, T., *The Adult Education and Literacy System (AELS) in the United States: Moving from the Margins to the Mainstream of Education*, Fredericton, New Brunswick, Canada: National Adult Literacy Database, 2000.

English as a Second Language

- ¹⁴² Camarota, S., *Importing Poverty: Immigration's Impact on the Size and Growth of the Poor Population in the United States*, Washington, D.C.: Center for Immigration Studies, 1999.
- ¹⁴³ Ibid.
- ¹⁴⁴ National Center for ESL Literacy Education, *Frequently Asked Questions in Adult ESL Literacy*, Washington, D.C.: Natl. Center for ESL Literacy Education, 2002.
- ¹⁴⁵ Singleton, K., "Health Literacy: Recognizing Its Importance in ESL Instruction," in *NCLE Notes*, Washington, D.C.: Natl. Center for ESL Literacy Education, Vol. 11, No. 1, Summer, 2002.
- ¹⁴⁶ Fitzgerald, N., *ESL Instruction in Adult Education: Findings from a National Evaluation*, Washington, D.C.: Natl. Clearinghouse for ESL Literacy Education, 1995.
- ¹⁴⁷ Sataline, S., "Immigrants' First Stop: The Line for English Classes," in *The Christian Science Monitor*, Aug. 27, 2002.
- ¹⁴⁸ U.S. Dept. of Education, *Preliminary Analysis Report: Five-Year Data on ESL Enrollments*, U.S. Dept. of Education, Office of Vocational and Adult Education, Div. of Adult Education and Literacy, 2000.
- ¹⁴⁹ Jameson, J., "Selling Workplace ESL Programs – To Employers and Employees," in *The Connector*, Center for Applied Linguistics, Project in Adult Immigration Education, No. 4, Spring 1996.
- ¹⁵⁰ Sataline, S., *English Language Classes in Short Supply: Immigrant Surge Means Waiting List*, in *the Boston Globe*, Aug. 15, 2002.
- ¹⁵¹ *The Skills Gap 2001*, the Natl. Assn. of Manufacturers, Andersen, & Center for Workforce Success, 2001.
- ¹⁵² Chisman, F., Wrigley, H., & Ewen, D., *ESL and the American Dream: A Report on an Investigation of English as a Second Language Service for Adults*, Washington, DC: The Southport Institute for Policy Analysis, 1993.

¹⁵³ Greenberg, E. et al., *English Literacy and Language Minorities in the United States*, Washington, D.C.: U.S. Dept. of Education, Natl. Center for Education Statistics, 2001.

¹⁵⁴ Schlusberg, P. & Mueller, T., *English as a Second Language in Volunteer-Based Programs*, Washington, D.C.: Natl. Clearinghouse for ESL Literacy Education, 1995.

¹⁵⁵ Pfizer, *Health Literacy Initiative*, Pfizer Inc., 2002.

¹⁵⁶ Fitzgerald, N., *ESL Instruction in Adult Education: Findings from a National Evaluation*, Washington, D.C.: Natl. Clearinghouse for ESL Literacy Education, 1995.

¹⁵⁷ Kirsch, I. et al., *Adult Literacy in America*, Washington, D.C.: U.S. Dept. of Education, Natl. Center for Education Statistics, 1993.

Empowerment

¹⁵⁸ Parikh, N. et al., "Shame and Health Literacy: The Unspoken Connection," in *Patient Education and Counseling*, Elsevier Science Ireland Ltd., vol. 27, 1996.

¹⁵⁹ Ibid.

¹⁶⁰ Center for Health Care Strategies, *Patients with Poor Reading Skills Have a Hard Time Understanding Basic Medical Instructions*, Lawrenceville, NJ: Center for Health Care Strategies, 1997.

¹⁶¹ Comings, J., Reder, S., & Sum, A., *Building a Level Playing Field: the Need to Expand and Improve the National and State Adult Education and Literacy Systems*, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 2001.

¹⁶² Royce, S. & Gacka, R., *Learning for Life: A Longitudinal Study of Pennsylvania's Adult Education Success Stories Recipients*, Harrisburg, PA: Pennsylvania Dept. of Education Bureau of ABLE, 2001.

¹⁶³ Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁶⁴ Bingman, M. et al., *Changes in Learners' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee*. Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁶⁵ Bingman, M., *Outcomes of Participation in Adult Basic Education: The Importance of Learners' Perspectives*, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 2000.

¹⁶⁶ Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁶⁷ A.T. Kearney, *Literacy Volunteers of America, Inc., Economic Impact Analysis Project Report*, Syracuse, NY: Literacy Volunteers of America, & Chicago, IL: A.T. Kearney, 1999.

¹⁶⁸ Laubach Literacy Action, *A Year's Work in Literacy: 2000-2001 Statistical Report*, Syracuse, NY: Laubach Literacy Action, 2001.

¹⁶⁹ Bingman, M. et al., *Changes in Learners' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee*, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁷⁰ Padak, N., Sapin, C., & Baycich, D., *A Decade of Family Literacy: Programs, Outcomes, and Future Prospects*, Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, 2002.

¹⁷¹ Study by Greenleigh Associates cited in Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁷² Bingman, M. et al., *Changes in Learners' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee*, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

¹⁷³ Wirt, J. & Snyder, T., *The Condition of Education 2000*, Washington, DC: U.S. Dept. of Education, Natl. Center for Educational Statistics, 2000.

¹⁷⁴ Cited in Padak, Sapin, & Baycich, 2002, op. cit.: Anderson, J., *Families Learning Together in Colorado*, Denver, CO: Office of Adult Education, Colorado State Dept. of Education, 1994.

¹⁷⁵ National Center for Family Literacy, *Follow-up Study of the Impact of the Kenan Trust Model for Family Literacy*, Louisville, KY: Natl. Center for Family Literacy, 1991.

¹⁷⁶ National Center for Family Literacy, *Even Start: An Effective Literacy Program Helps Families Grow Toward Independence*, Louisville, KY: Natl. Center for Family Literacy, 1997.

¹⁷⁷ Hayes, A., *The Power of Even Start Family Literacy: A Summary of Findings from a Follow-Up Study*, Louisville, KY: Natl. Center for Family Literacy, 1997.

¹⁷⁸ Beder, H., *The Outcomes and Impacts of Adult Literacy Education in the United States*, NCSALL Reports #6, Cambridge, MA: Natl. Center for the Study of Adult Learning and Literacy, 1999.

PROLITERACY
America



U.S. Programs Division of ProLiteracy Worldwide
1320 Jamesville Avenue, Syracuse, New York 13210
www.proliteracy.org