

1-1-1987

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Recommended Citation

Fideler, Elizabeth F. (1987) "A Second Chance: Meeting the Needs of Adult Learners," *New England Journal of Public Policy*: Vol. 3: Iss. 1, Article 8.

Available at: <https://scholarworks.umb.edu/nejpp/vol3/iss1/8>

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A Second Chance:

Meeting the Needs of Adult Learners

Elizabeth F. Fideler

Changing demographics and economic factors are focusing national attention on adult learning as a major resource for solving many of the nation's social and economic dilemmas. However, adult learners, the poor especially, face obstacles to educational advancement even where tuition is waived or incentive grants are given. Despite the considerable recent growth of adult education, the vast number of those who need it the most are not as yet participating. This article examines adult-education practices and participation in general — in the areas of literacy, occupational education, and higher learning — and conditions in Massachusetts in particular. It explains why higher levels of investment in adult education are necessary to sustain the symbiosis between economic growth and education which has proven so productive in Massachusetts, and why policymakers should view adult learning in broader terms than skills training.

At the turn of the century, the University of Wisconsin led land-grant institutions in the movement to democratize knowledge via university extension. In 1911, Moonlight Schools in Rowan County, Kentucky, pioneered adult literacy classes. Adult education today encompasses far more than literacy efforts and courses for farmers and housekeepers. The diversity of participants, providers, programs/activities, and delivery systems amounts to a veritable “adult education mosaic.”¹ Adult education runs the gamut from individually initiated, systematic study to external systems with providers of instruction;² from informal learning to formal schooling; from credited to non-credited work; from campus-based programs to those based at off-campus sites; from basic skills to advanced study; from career education to recreational pursuits; and from face-to-face instruction to computer-assisted and televised delivery processes. Thus, definitions of adult education vary, depending on the emphasis placed on the needs of the individual learner, on social purpose, or on organizational plan. In *Serving Personal and Community Needs Through Adult Education*, Edgar J. Boone et al. suggest that adult education is “one means by which society assists adults in gaining the knowledge and coping skills needed to adjust to the various role changes required

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in adult life.”³ This is an inclusive definition, yet one that is useful in its simplicity and its balance.

The purview of this article is somewhat narrower than the entire range of adult education. The discussion focuses on the three major areas of literacy, occupational education, and higher learning for adults, as opposed to incidental, unprogrammed, or avocational learning (no matter how meaningful to individuals or how beneficial to society), simply because the former are areas where educational and governmental policymakers can exert a direct influence. Even with the narrower focus, though, it is important to keep the broader context in mind—educating for a lifetime of growth and change—because adults who have self-awareness and who understand the uncertainties of the labor market are likely to be more productive workers, better able to respond intelligently to change, and more capable of benefiting from retraining opportunities than workers who lack such insights.

The Current Status of Adult Education: An Overview

In recent years, the scope of adult education has expanded rapidly in multiple areas: basic and secondary education; occupational and vocational training; higher education; continuing education for professions and management; labor education; and community and social action. Major providers include mass media; employers; labor and professional associations; proprietary schools; institutions of higher education; extension services; public schools; and government and community agencies (for example, military services, libraries, museums, and religious organizations).

The term *adult learner* is not easy to define. Often referred to as nontraditional, an adult learner may be a school dropout; a late bloomer who never attended college or who began college and then dropped out; a career changer or a career updater; an unemployed, handicapped, or institutionalized person; an immigrant; a displaced homemaker; or a senior citizen. Their intermittent enrollment patterns characterize adult learners as nontraditional in contrast to high school and college students who attend school full-time, usually during the day, in settings traditional for their ages. Thus, the designation *adult learner* is actually more a function of student status than of age. Moreover, data on participation in adult education often lack comparability, because age categories, when they exist at all, refer variously to individuals seventeen and older, twenty-two and older, twenty-five and older, and so on. In order to comprehend the scope of participation in adult education, one needs to be aware of the wide variety of references to age in the data sources. Some pertinent examples follow.

Enrollment projections from the Carnegie Council (1980) showed the *over-twenty-two* age group constituting 50 percent of undergraduate enrollments by the year 2000, with part-time undergraduate enrollment reaching 45 percent. In June 1984, the National Center for Education Statistics (NCES) predicted that the part-time adult student will increasingly replace the *under-twenty-five* full-time student. At the state level, the Massachusetts Board of Regents of Higher Education (BOR) classified students aged *fifteen to twenty-nine, twenty to twenty-four, twenty-five to twenty-nine, . . . to age eighty-four* in its head count by age group (fall 1984) of total enrollment in all institutions of higher education. Clearly, there is no uniform categorization of students according to age.

In addition, the unavailability of data with respect to age of students makes it hard to gauge the extent of adult participation with precision. For example, student enrollment and community participation in continuing-education courses and activities at all the

public colleges and universities in Massachusetts (which comprise the alternative public postsecondary education system) were reported for FY1982 with no breakdown by age: 260,984 students in credit course sections; 55,372 in noncredit course sections; and 123,064 in community education courses and special programs, for a total of 439,420 participants.⁴ Since continuing education encourages individuals to maintain full- or part-time employment while pursuing education or specialized training in order to increase employability, and since more than half of the total continuing education enrollment (51 percent of all credit course sections, 58 percent of all noncredit course sections, and 82 percent of all community education/special programs) is at the community college level, where adult students tend to be found, one can only surmise that continuing education in Massachusetts must be serving a predominantly adult population.

Whatever the lower age limit is determined to be, the number of participants in adult education nationwide has expanded considerably. NCES data showed an increase of 17 percent in the years 1978–1981, with more than 21 million (13 percent of adults seventeen years of age and older) participating in one or more courses or organized educational activities in 1981.⁵ About half the growth can be attributed to larger numbers of adults in the population, while the remainder is attributed to the increased need and desire of adults to continue learning.⁶ That is, sharp changes in the nation's demographic and economic picture have spurred the recent surge in adult learning. Just as government has been responsive to the changing needs of adult learners in the past, so there is every reason to believe that it will be able to plan for changing socioeconomic conditions and increasing numbers of adult learners in the future.⁷ Planning must involve a reconfiguration of educational support services, resources, and institutional mission;⁸ cooperation and coordination, rather than competition, between private-sector and public providers and among public providers; and careful assessment to determine whether government will or should be responsible for significantly expanded financial support.⁹ As a contribution to that assessment, this article will examine adult education practices and participation in general and conditions in Massachusetts in particular.

Changing Demographics

Demographic studies show the population to be getting older (with the age group consisting of those between thirty-five and forty-four years old increasing most markedly, and the cohort of eighteen- to twenty-one-year-olds shrinking in numbers until 1992), with the result that 90 percent of those who will comprise the nation's work force in 1990 are already at work today.¹⁰ Age is but one of several characteristics of the adult learner population which have significance for the changing composition of the work force. Twenty million out of the 21 million adult education participants identified by NCES in 1981 were part-time students, and 17 million (83 percent) were employed, 12 million of whom (70 percent) held white-collar jobs. Women were participating at higher rates than men at each age level (56 percent female participation overall). However, 88 percent of participants were white (6 percent black, 3.6 percent Hispanic, 2.4 percent other race/ethnic group); participation rates were greater at each succeeding higher level of family income (from 6 percent at the lowest income level to 19 percent at the upper income level); the rate of participation increased as the level of prior education increased (from 2.2 percent for those with less than an eighth-grade education to 31 percent for those with five or more years of higher education); and over 72 percent of participants were located in metropolitan areas. These latter data

should make us ask what needs to be done to provide incentives and improve access to adult education for minority, poor, unemployed, undereducated, and rural citizens. Can we move closer to the old University of Wisconsin ideal — “teach anybody — anything — anywhere”?¹¹ The answer may depend on whether the growth in adult education is in any way comparable to the growth that prompted change during the land grant movement. This does not seem likely in the immediate future, since no recent public-policy initiative or appropriation has been large enough to attract adult learners on a similar scale.

Changing Economic Conditions

Differential birth rates by class, ethnicity, and region are contributing to a decade of overall declining higher education enrollments and worker shortages, particularly in the northeastern states. Unexpectedly, postsecondary institutions are educating only about one in four adult learners, while the rest of the aforementioned providers are educating three out of four.¹² Regardless of the source of training, the U.S. economy depends on skilled workers. Human resources are being more carefully developed to ensure that current levels of productivity will be maintained in the future. Even in New England, where currently the economy is stronger and unemployment lower than in any other region of the country, recurrent structural unemployment, stemming from technological change, shifting prices, new products, and foreign competition, is a real threat.¹³

In Massachusetts, Governor Michael Dukakis is strongly committed to funding programs targeted at the unemployed who are considered “most in need.” To understand the composition and the condition of that target population, it is helpful to look at a recent report of the Massachusetts Division of Employment Security (DES).¹⁴ The Commonwealth’s annual growth rate for employment between 1983 and 1984 (5.9 percent) was the highest since World War II, and the unemployment rate for the same period (4.8 percent) was the lowest among all major industrial states. Yet, despite the healthy employment picture in Massachusetts, unemployment problems persist for selected population groups. Unemployment among blacks and teens is double, and for Hispanics nearly four times higher than, the overall Massachusetts rate. Using \$9,900 as the poverty line for a family of four, DES found 294,000 people in poverty, or 6.5 percent of all citizens sixteen and older. More than two-thirds of all poor persons in Massachusetts are women; more than 60 percent of all poor families are headed by women. A persistent trend toward the feminization of poverty among families in the New England region accelerated during the first half of the 1980s; the trend is pronounced in Massachusetts. The probability of a single-parent, female-headed family in New England being poor in 1984 was *ten times higher* than for husband-wife families in the region (compared to five times higher in the United States as a whole). In Massachusetts the probability was *eleven times higher*.¹⁵

The DES report makes it painfully obvious that educational attainment has a direct influence on whether or not individuals experience poverty: half of all poor people in Massachusetts are high school dropouts. Nearly three-quarters of all teenage dropouts are women, 35 to 45 percent of whom leave school because of pregnancy and marriage. The unemployment rate of high school dropouts is 2.4 times that of high school graduates. In 1984, when DES identified a “hard-core” dropout population of sixteen thousand, of which the greatest proportion (78 percent) was female, it concluded that “labor market problems of female dropouts appear to be extraordinarily severe.”¹⁶

The condition of female dropouts is poignant for many reasons, but the DES report

focuses on one reason in particular: the deteriorating position of high school dropouts in the labor market. The current economic revitalization of Massachusetts derives not only from continuous and rapid expansion in the overall size of the labor force, but also from changes in the job content of the economy. Two-thirds of employment growth from 1977 to 1984 was in industries requiring workers with at least a high school diploma. In contrast, the nondurable goods manufacturing sector, where one-third of all workers have less than twelve years of education, declined during the same period. Thus, changes in industry have boosted employment opportunities for high school graduates and, at the same time, have sharply reduced opportunities for dropouts. Between 1970 and 1984, the relative labor market position of dropouts deteriorated substantially, from 34 percent of persons employed in industry to 17 percent. The chances of reversing that trend in the near future are remote, according to DES.

Nevertheless, other labor market researchers claim that “the elimination of poverty among families in New England is within greater reach today than at any other time in the past fifteen years.”¹⁷ However, future economic growth by itself will not automatically bring about reductions in the size of the family poverty population. Sum et al. argue that labor market-oriented strategies are indicated by the presence of a vast majority of poor family heads in the prime working age groups (twenty-five to fifty-four years old). In addition to the age of the family head, they looked at (1) other characteristics of poverty families, (2) the nature of their income inadequacy problems, and (3) the barriers to their employment, and concluded that investing in those who are at greatest risk of becoming the long-term dependent poor of the region, that is, teenage and other young parents who have limited formal education and who are deficient in basic academic skills, may well be one of the most effective methods for reducing poverty among families in the future. Such investments, they hasten to add, will require strong state leadership on this issue in New England.¹⁸

Howard R. Bowen, in *Adult Learning, Higher Education, and the Economics of Unused Capacity*, suggests that the rapid shift from an industrial to an information-technological society offers an “unparalleled opportunity” for advancement toward the goal of becoming “a nation of educated people.”¹⁹ Life and work in the information age, in which “uncertainty is the main planning factor,” have greater-than-ever implications for education, “the drivewheel of citizenship in the informatized society,” writes Harlan Cleveland in “Educating for the Information Society.”²⁰ Throughout this decade at least, postsecondary institutions are attempting both to offset the enrollment drop of traditional students and to fill unused capacity by serving a new adult clientele and bringing nontraditional study into the mainstream, actions that represent “the most desirable and significant option that is available to higher education institutions in terms of national economic gain, cultural advancement, and institutional survival.”²¹

Continued development of adult education opportunities and participation will depend on what policies are adopted by governmental and educational bodies at local, state, and national levels. However, instructional programs alone will not be enough to maintain an effective work force. A more elaborate combination of services, involving assessment, guidance, instruction, and placement, must be developed by each educational organization. Of equal concern, moreover, is the tendency of adult education to serve the advantaged classes out of proportion to their numbers in the population.²² While many educators “think their most important task is not to train for a meal ticket the week after graduation, but to educate for fifty years of self-fulfillment,”²³ their critics in legislatures and at large point out that idealism does little to resolve chronic

tensions and inequities between a well-educated elite and a vocationally trained working class, between the ability to persist without interruption to degree completion or certification and the necessity of attending intermittently until a job comes along. Despite the impressive growth of adult education, we must face the reality that the vast numbers of those who need it the most are as yet not participating.

As we approach the twenty-first century, shifting social and economic conditions require higher levels of literacy as well as retraining and education for alternate careers, whether one views human capital generally or information specifically as our major resource. Despite public recognition of the benefits of literacy for individuals and for society, literacy efforts remain partial and uncoordinated; thus they fail to reach more than a small proportion of those in need.²⁴ Similarly, many daytime and evening postsecondary programs have overlooked the needs of adults—especially those hard-pressed by work and family responsibilities—by offering academic support/advisement and child-care services only during the daytime, while working adults typically attend evening classes, and by limiting eligibility for financial aid to full-time enrollees, when most adult participants are part-timers. Among those whose needs are overlooked by such programs are women with children, the educationally/linguistically disadvantaged, low-income people, and those outside metropolitan centers.

National Assistance Resources

There is no single unifying source or agency that assumes leadership for organizing, facilitating, coordinating, and evaluating adult education programs. While some believe that this leadership function could best be filled by the federal government establishing policy and promoting adult-education research and development, others would restrict the federal role to the provision of financial support. The latter constituency would prefer to place the role of national leadership in the hands of professional adult educators, who would be authorized to exercise that leadership through the agencies and organizations that have arisen in response to local and regional needs and interests.²⁵

Although the leadership issue is still subject to debate, national attention is focusing more on adult learning as a major resource for solving many of the nation's economic and social dilemmas. For example, as of 1984, the major objective of the National Advisory Council on Continuing Education was to convince Congress to review, amend, reauthorize, and fund Title I of the Higher Education Act.²⁶ The council believes that Title I will help establish a formal legislative base for extending educational opportunities to all who need or want them, especially those adults who use continuing education for economic-, job-, and career-related reasons.

The Commission on Higher Education and the Adult Learner (sponsored by the American Council on Education [ACE], the Council for the Advancement of Experiential Learning [CAEL], and the University of Maryland) is currently engaged in developing public policies, both state and federal, aimed at addressing the needs of the nation for adult learning; helping institutions of higher education to clarify their roles and to serve adult learners better; and stimulating effective cooperation and division of labor among associations that serve adult learners. The commission is directing its efforts toward the accomplishment of five major tasks: (1) developing or renewing employability for the unemployed; (2) maintaining and enhancing occupational skills in the face of technological change; (3) eliminating adult illiteracy; (4) providing equal access to education for all adults; and (5) developing knowledgeable citizens in an

information-technological society.

The State Higher Education Executive Officers (SHEEO) want to assume greater responsibility for services across the entire lifelong learning spectrum, from literacy programs to professional continuing education. SHEEO seeks state-level input into research policy in the adult learning field, along with the distribution of a significant portion of federal implementation grants through state higher-education agencies. SHEEO also acknowledges the need to cooperate with the private sector.

Adult literacy is the target of such organizations as the Business Council for Effective Literacy (BCEL), a new private foundation that fosters greater corporate awareness of adult-literacy problems and encourages increased business involvement and support, and the National Adult Literacy Project, which has undertaken to research model literacy programs, develop new forms of technical assistance, and shape a priority agenda. In sum, the rhetoric of national organizations, whether they are private or public, describes the ongoing pursuit of learning as essential to economic productivity and occupational success, social equity and effective citizenship, and enhancement of the quality of life.²⁷ However, in actuality, federal adult education initiatives emphasize literacy and vocational skills.

More than 1.5 million adults in the United States are illiterate, and between 25 million and 45 million are functional illiterates (those out-of-school adults whose literary and numeracy skills are so poor that they cannot function effectively or at all in everyday tasks). High school dropouts, immigrants, and refugees increase the pool of functional illiterates in the United States by about 2.3 million each year.²⁸ The 1964 Adult Education Act established adult basic and secondary-level educational programs in each of the fifty states, the District of Columbia, and U.S. territories. Funds are available to state and local agencies to meet the costs of instruction, to employ and train qualified adult educators, and to develop specialized curricula and techniques appropriate for adult learners. In 1978, amendments to the 1964 act mandated states to provide assistance to potential students in the form of flexible schedules, transportation, and child care.

Enrollments in programs funded under the Adult Education Act increased from nearly 38,000 in FY1965 to close to 2.6 million in FY1984. (Part of the growth was attributable to expansion of the term *adult* to include those sixteen years of age or those beyond the age of compulsory school attendance under state law.) Funding grew from \$18.6 million in FY1965 to \$100 million (estimated) in FY1986. (In Massachusetts, funding increased from \$427,000 in FY1965 to \$2,090,000 [estimated] in FY1986.)²⁹ In 1984, P.L. 98-511 reauthorized the act and extended its mandate through 1988.

Since 1981, under the auspices of the Adult Education Act, the U.S. Department of Education has sponsored the Clearinghouse on Adult Education to link the adult education community with existing state-administered resources. The clearinghouse confers grants for special projects to local education agencies (40 percent of its funds), to institutions of higher education (30 percent), and to other organizations that are providing innovative leadership in adult education programming or training for practitioners. In FY1986, over \$10 million was available for these efforts. The U.S. Department of Education also administers the federal Adult Basic Education (ABE) program, the largest single adult basic-skills program in the nation. Some fourteen thousand local ABE programs operate across the country to serve approximately 3 million out-of-school adults each year. Even when public programs are combined with privately sponsored literacy outreach efforts, however, the sum total of existing programs, owing

to limitations of resources, can serve only a small portion (estimated at 4 million) of the 25 million to 45 million who are functionally illiterate.

Vocational skills were the focus of two recent federal legislative efforts. The Vocational Education Act (P.L. 94-482), also called the Perkins Act, prescribes an optional program of studies for secondary-, postsecondary-, and adult-level populations. Program offerings represent at least 150 occupations. Adult-level programs are provided by local and regional school districts and community colleges. In Massachusetts, the Division of Occupational Education of the State Department of Education (DOE) allocates to the Board of Regents of Higher Education a portion of the federal vocational education funds it administers (approximately \$2 million out of \$19.5 million) to provide postsecondary-skills training and counseling services to displaced homemakers and other disadvantaged adults, whether unemployed or underemployed.

The federal Job Training Partnership Act (JTPA [P.L. 97-300]), which took effect in 1984, was funded through the U.S. Department of Labor and implemented via a partnership of foundations, public agencies, and the business community to establish programs aimed at preparing youth and unskilled adults for job entry and to train economically disadvantaged adults for jobs. Priority populations include the handicapped, minorities, those with limited English proficiency, and persons seeking training that is nontraditional for their sex. The local Private Industry Councils (PICs), composed of corporate executives, educators, labor representatives, and public officials, oversee JTPA activities in fifteen service-delivery areas statewide. Eight percent of JTPA funding is set aside for educational coordination and services, such as adult literacy classes; English as a Second Language (ESL); basic and remedial education; and counseling and career planning (amounting to approximately \$2.9 million in Massachusetts in FY1984, also administered by the state Division of Occupational Education). The Office of Training and Employment Policy (OTEP) of the Massachusetts Executive Office of Economic Affairs, through its \$55 million annual budget, coordinates JTPA training opportunities statewide for some forty thousand people, 40 percent (mostly out-of-school) youth and 60 percent adults, in core (year-round) and summer programs.

Adult Education in Massachusetts

Many educational and governmental policymakers agree that the states have a crucial role in advancing adult education; however, K. Patricia Cross and Anne-Marie McCartan, in a 1984 study entitled *Adult Learning: State Policies and Institutional Practices*, noted that most states

have only the vaguest idea about the educational opportunities available to adults. They could profit from more information to determine what is distinctive about the missions of various providers, the extent of overlap, whether competition for adults is constructive or destructive, and which segments of the population are being served.³⁰

In fact, there is much variation among the states in the extent of comprehensive planning and initiatives for lifelong learning. Cross and McCartan describe a range of possible approaches to issues in adult education, identifying four characteristic roles for states:³¹

1. *a laissez-faire or hands-off approach* involving no state intervention

2. *encouragement* through planning and goal setting, collecting data, establishing task forces, and so on, without providing direct support
3. *intervention* to ensure efficient use of public resources and to protect students against fraudulent or shoddy educational practices
4. *direct support* for more cost-efficient services, to promote more equitable access and to initiate economic revitalization

Massachusetts is one of the states that is directly involved in supporting or providing adult learning services. The New England Board of Higher Education predicts that by FY1987, Massachusetts will rank first among all states with respect to *ten-year rate of gain* in appropriation for state tax funds for higher education, with an estimated \$816.4 million appropriation. Moreover, given current data-collection practices, it is not possible to make meaningful estimates about what portion of these funds is earmarked for adult learners. It should be noted, however, that Massachusetts's investment in higher education will only reach the national average in 1987, notwithstanding the state's considerable gain in proportion of public revenues allocated to higher education. Still, this compares to its ranking in *fiftieth place only a decade ago*. This enhanced capacity is clearly tied to the Commonwealth's economic revitalization over the same period.³² Still higher levels of investment in higher education, particularly in adult education, will be necessary to sustain the symbiosis between the state's economic growth and education which currently is so productive.

Education and Employment

The Dukakis administration has focused on demographic groups and geographic areas that have not fully benefited from the current expansion. The new Education and Training (ET Choices) program is intended as a window of opportunity for welfare recipients; it provides remedial education and job training, child-care and job-search assistance, and placement in permanent, unsubsidized, private-sector jobs (over twelve thousand in 1984). Nonetheless, joblessness does not explain all the poverty problems faced by the poor in Massachusetts. Nearly one-third of the 294,000 poor people aged sixteen and older who were identified in the aforementioned DES report *are* employed, even if marginally.³³

In fact, the Bay State Skills Corporation (BSSC) identifies another group at risk (besides those outside the labor force), a larger target population that is not typically eligible for publicly funded education programs. This group consists of currently employed workers who, for want of functional (literacy and numeracy) skills, cannot be retrained or upgraded and are thus particularly vulnerable to layoff. Again, many of these workers are women in low-level, often sex-stereotyped positions who lack resources or employer sponsorship to improve their status. The failure to meet the needs of at-risk employees in a near-full employment state may be, in the words of BSSC, "the heartbreak of our society."³⁴

BSSC encourages companies to invest in current workers whose educational attainment often belies their true functional level. For example, in various geographic pockets of unemployment in the state, such as Fall River, New Bedford, and Athol, there are adult workers in low-level jobs who have not been educated beyond the ninth grade and who are incapable of adapting to technological changes on the job. To enhance their productivity and chances for retention (let alone for promotion), such workers

need remedial work prior to more advanced skills training. Once they have obtained the basic literacy skills, they still need job training to acquire the "readiness" necessary for them to assimilate the more advanced training that follows and to perform effectively on the job. Examples of such job-training readiness are a Business English component added to the standard curriculum for word-processing trainees, and a computer training literacy component added to training for machinists who are to operate computerized numerical control systems.

The BSSC format is unusual in that instead of delivering services directly to targeted groups, the corporation catalyzes relationships between public and nonprofit postsecondary institutions and the private sector. Massachusetts was the first state in the nation to fund business-education collaboration. In 1979-1980, the Bay State Project was initiated in response to a 1978 survey that reviewed the projected work-force needs of high-tech industry. The project's ambitious approach was then gradually implemented by BSSC, beginning in 1981, using the public-private partnership model to train people, with particular attention paid to those left behind by the changing economy. BSSC was created by the Massachusetts legislature with a fourfold mandate:³⁵

1. Encourage and facilitate the formation of cooperative relationships between business and industry, labor, government, and education to develop and expand programs of skills training that are consistent with employment needs;
2. provide grants-in-aid to education and training institutions, to be matched with private-sector support, to fund skills-training programs in growth occupational areas;
3. collect and disseminate information on present and future employment needs as well as the availability of skills training and education in these areas; and
4. conduct conferences and studies that will increase communication and information on employment needs of the Commonwealth.

One way BSSC fulfills these aims is by operating workshops in which industrial experts in various emerging technologies share information with faculty members from Massachusetts educational institutions, who then incorporate the updated information in their curricula to prepare students better for employment in Massachusetts companies.

BSSC is a quasi-public corporation: funds from the Commonwealth are matched by corporate dollars or in-kind services (that is, staff time and expertise, equipment, supplies, space, or other appropriate contributions that can make the program more directly responsive to industry's current needs). BSSC responds to the whole spectrum of needs found in high-growth industries—from entry-level to advanced skills training and from the upgrading of present employees to the retraining of experienced workers. The actual training can take place at universities, public and private two- and four-year colleges, vocational schools, JTPA skills centers, and community-based organizations throughout the state.

BSSC programs annually serve approximately one percent of the available work force (aged sixteen and older) in the state, including dislocated workers, public assistance recipients, mentally retarded adults, displaced homemakers, and some young

people assigned to the Department of Youth Services. Since its inception, BSSC has involved 900 companies and 170 educational and training institutions in preparing more than nineteen thousand trainees, 87 percent of whom have found employment in the Massachusetts economy. The innovative BSSC format is so successful that four states (Minnesota, Kentucky, Washington, and Florida) have copied the enabling legislation; two states (Pennsylvania and New Jersey) are currently looking at the BSSC model; and other states have adopted the Massachusetts legislation in modified form. Eleven foreign countries have sent delegations to review the economic impact of BSSC.³⁶

Programs Sponsored by the Board of Regents

Two state agencies have principal responsibility for adult education in the Commonwealth—the Board of Regents of Higher Education and the Department of Education. The total head count for the twenty-nine public postsecondary institutions governed by the BOR was 119,000 in the fall of 1984. Depending on how one clusters the age groups, there were either 32,000 students aged twenty-five and older, or 80,000 students aged twenty and older (the latter figure includes both traditional and adult learners). Minority enrollment was highest (10.5 percent) at the community colleges, lowest (4.8 percent) at the state colleges, and 8.6 percent at the universities. Overall gender distribution conformed closely to the 1980 Census figures—47 percent male, 53 percent female. Female enrollment was higher at community and state colleges than at the universities.³⁷

BOR-directed student aid takes several forms. The BOR sponsors the Tuition Waiver Program for the Unemployed, whereby eligibility for waivers is restricted to Massachusetts residents who are unemployed whether or not they are currently receiving benefits. In FY1985, twenty-three of twenty-eight eligible institutions participated. Full awards numbered 394, partial awards numbered 497. Total expenditures amounted to \$251,328. Since 1982, the BOR, along with the Department of Public Welfare, has also cosponsored the Career Education Incentive Grant, a one-time grant for public-assistance recipients who register for the ET program and obtain employment. In 1984 the BOR piloted the Adult Learners Program, whose purpose was to make funds available to participating Massachusetts public and independent colleges, universities, and hospital schools of nursing which would be used for financial assistance to eligible full-time and, for the first time, part-time undergraduate students who were AFDC (welfare) recipients. Priority was given to head-of-household AFDC recipients with children. By 1985, the number of institutions participating in the program had increased, and funding went from \$250,000 to \$590,000. In contrast, guidelines for the largest tuition waiver program (nearly 17,000 awards for a total expenditure of \$6.8 million in FY1985) restrict eligibility to undergraduates enrolled in courses for which tuition reverts to the Commonwealth, thus eliminating many adults of limited means who wish to enroll in continuing education courses.³⁸

Legislatively mandated programs provide tuition waivers for senior citizens, veterans, members of the National Guard, American Indians, and police/firefighters in day division and continuing education courses. In FY1985, some 13,000 individuals availed themselves of these waivers at a cost of \$3,283,606. State employees also receive tuition remission (100 percent in state-supported programs, 50 percent in continuing education). In FY1985, some 5,700 state employees (other than higher-education employees) received waivers at a cost of \$1,305,942, while some 7,500 state higher-education employees, their spouses, and dependent children to age twenty-five received

waivers at a cost of \$2,343,899.³⁹

In 1986, the BOR established the Part-Time Student Grant Program in response to the national emphasis on adult education and a growing concern about adequate financial assistance for part-time undergraduate students in Massachusetts.⁴⁰ Under the pilot program guidelines, a \$4 million appropriation will be awarded equitably on the basis of financial need to upwards of eight thousand eligible part-time students at participating public and independent colleges, universities, and hospital schools of nursing in the Commonwealth. To qualify, students need not be enrolled in a degree or certificate program. Financial aid for part-time students represents a significant change in the state's commitment to working adults, whose learning has been obtained primarily at no cost to the Commonwealth in the past.

There are various programs at state-supported institutions of higher education which serve nonmatriculating adults in undetermined numbers; Roxbury Community College's Adult Literacy Program and Cape Cod Community College's off-campus programs are two examples. One program that keeps track of its adult enrollment is the College of Public and Community Service (CPCS), located at the University of Massachusetts at Boston. CPCS provides training in a variety of human-service roles for adults. The FTE (or Full-Time Equivalent) is one thousand students from metropolitan Boston (70 percent in the work force, 60 percent women, 30 percent minority, average income \$10,000) whose ages range from twenty-five to seventy.⁴¹

Programs Sponsored by the Department of Education

In Massachusetts, Department of Education adult programs are divided into three areas: Basic Educational Attainment, including programs for citizenship training and academic instruction; Work-Related Programs, including postsecondary and adult occupational evening programs; and General Enrichment, including adult evening practical arts programs. In FY1985, the DOE served 32,578 adults in Adult Basic Education and citizenship education programs with \$2 million in federal funds, and \$1.5 million was awarded to the DOE by the state legislature to supplement the federal grant provided under the Adult Education Act. However, existing DOE programs reach only a tiny fraction (3 percent) of the over one million adults over the age of sixteen who have no high school credentials. (The 25 percent proportion of functionally illiterate citizens in Massachusetts is comparable to the 20 to 25 percent proportion of the entire U.S. adult population that lacks adequate basic education skills.)⁴²

In accordance with the federal Adult Education Act, the DOE Bureau of Student, Community and Adult Services approves grants for programs conducted at sites such as public schools, community colleges, neighborhood houses and job centers, houses of correction, community learning centers, and low-income housing projects. The programs provide English as a Second Language, Adult Basic Education, and/or General Education Development (GED) classes to various types of people: adults with limited or non-English-speaking abilities, school dropouts, handicapped adults, senior citizens, educationally and economically disadvantaged women, incarcerated individuals, rural residents, and so on. Funding covers per-pupil costs for salaries, educational materials and supplies, capital outlay, purchased services, and outreach. Typically, the grants are small and short-term. For example, in Gardner, Massachusetts, an ABE program was funded for three months at a low-income housing project whose residents are prevented from attending Mount Wachusett Community College because they lack transportation and child care.

DOE-administered programs for postsecondary and adult populations fall into four categories. In FY1984, twenty-five Adult Short-Term Training programs served 916 students in area vocational schools, using \$1.6 million in federal vocational education funds. Nine programs supplied skills training and support counseling to 308 displaced homemakers seeking entry or reentry into the work force, at a cost of \$271,609. Community colleges served 2,434 adults and postsecondary students seeking occupational skills training, at a cost of \$1,170,417. Six occupational-skills training programs served 165 inmates at state and county correctional facilities, at a cost of \$134,000.⁴³

Coordinating Efforts

With the growth of federal and state ABE allocations in recent years, cooperation and coordination among providers of services have become essential in order to avoid wasteful duplication of services and outright competition for adult learners. Though the state cannot entirely curb competition from private providers, it can intervene to prevent contests between segments of public education. For instance, some vocational school administrators in Massachusetts are nettled by the attempts of community colleges to gain a larger share of federal aid to vocational education by focusing on the salience of age categories (adults versus teenagers) rather than on “traditional” role responsibilities.⁴⁴ Community colleges claim to have the expertise to work with adult populations, yet most federal ABE and vocational education monies go to state departments of education for distribution to secondary schools. If policy were changed to permit funding to “follow the learner” instead of the skill level, a larger portion of federal dollars could be redirected to community college programs, allowing expanded services for adults—such as academic and career counseling—and research into program effectiveness. Also, under the present arrangement in Massachusetts, there is room for better communication between secondary and postsecondary educators regarding dropout problems and retention efforts.

On the other hand, community college status in higher-education circles may be diminished by an increased emphasis on compensatory education. Some community college educators argue that

public support will be hard to hold on to for a community college whose leaders suggest that its greatest value lies in providing marginally educative pursuits and in acting as an agency for transfer payments. The question of institutional legitimacy is more than one of educational philosophy; it turns on the public's perception of what a college should be doing.⁴⁵

In *Conflict in Higher Education*, John D. Millett finds no issue in this area more difficult than that of vocational-technical education. In his view, the twin problems of competition between community colleges and area vocational schools and the inevitable duplication of courses stem from the growth of a strong bureaucracy of vocational educators, reinforced by federal grants that by law have to be apportioned by a single state government agency. In Massachusetts, as in twenty-one other states, this agency is the State Board of Education. Just five of the twenty-two state governments have established a joint or liaison committee composed of representatives of elementary, secondary, and higher education who are responsible for preparation of the state vocational-technical education plan and for allocation of federal funds. Massachusetts could emulate Ohio, where legislation defined vocational education (for example, plumbing,

carpentry, electrical trades) as a secondary school program, and technical education (for example, electronics technology and media technology studies) as a higher education program, with the state board of education remaining solely responsible for implementation of the vocational-technical education plan. After studying practices in twenty-five states, Millett concluded that state governments' "most promising solution" to the problem of costly vocational-technical duplication is to restrict technical education to community colleges. The "second most promising solution" is to place all offerings of technical (postsecondary) education under the aegis of the state higher-education coordinating boards.⁴⁶ Admittedly, both proposals would be unpopular with the vocational education bureaucrats, who would lose control of substantial funds.

Obstacles to Adult Education

This article has already identified three problems that must be addressed in order for states to achieve wise planning and efficient use of resources for adult education: (1) a multiplicity of definitions, (2) an absence of comparable data on adult learners, and (3) inadequate coordinating efforts. Correcting the first two is the key to correcting the third. Data should be collected on a basis that would allow planners to ascertain current levels of participation and funding in the three areas of literacy, occupational education, and higher education for adults; to know which groups remain unserved; and to determine whether spending for adults will increase or decrease in the coming years.

These may not be the toughest problems to resolve, however. Though institutions today are more flexible about part-time study, adult learners still face a number of barriers that interfere with the completion of programs. In *Adults as Learners*, Cross has categorized these as "situational" barriers—relating to lack of time, money, transportation, child care; "dispositional" barriers—relating to lack of interest or self-confidence; and "institutional" barriers—arising from requirements and constraints such as scheduling, prerequisites, curriculum, and location, as well as from lack of information.⁴⁷ Institutions, particularly colleges and universities that do not view serving adult learners as part of their mission, resist reallocating resources (programming, services, financial aid, and so on) to meet the needs of those who cannot partake of regular programs designed for full-time resident students. Not surprisingly, inadequate conventional public-funding strategies that give short shrift to part-time students, part-time faculty, and off-campus offerings stymie institutions as well as individuals.

Unhappily, among the biggest problems adults face in furthering their education are simply lack of information about programs and financial-aid opportunities available to them and lack of a place to go for advice. To address these specific needs, the U.S. Department of Education supports twenty-eight Educational Opportunities Centers (EOCs) nationwide that served some 94,000 adults in FY1986 at a cost of approximately \$9 million, with one-third more contributed by local sponsoring agencies. The EOC network in Massachusetts served 6,500 adults (FY1986) who met federal criteria, plus others who requested services at any of the six sites statewide, at a cost of \$519,000 in federal dollars, matched by another third from local sponsoring agencies. Federal criteria specify that persons nineteen years of age or older are eligible for EOC services. At least two-thirds of a center's clients must be low-income (150 percent of the federal poverty level) and from families in which neither parent has completed a bachelor's degree.

Services most frequently requested at the Boston Public Library's EOC and the

complementary Higher Education Information Center located there include the following:

- counseling on career goals
- information on trade and training schools
- referrals to higher-education programs and campus-based services for minorities and handicapped students
- help in filling out applications for college admissions and financial aid
- workshops at schools and community centers, particularly for those who have traditionally faced barriers to higher education
- sample material on preparing for entrance examinations

Two special services are the Career and Learning Line (a toll-free service provided by BSSC) and the new Peer Advisor Program, whereby other young adults encourage Boston high school students to persevere through to college study. Nevertheless, all such constructive measures can help to remove the wasteful information barrier to adult education only so long as adequate funding is forthcoming.

Obstacles to participation in adult education, especially with regard to motivation, appear to be more troublesome for women, particularly those with parenting responsibilities, than for men. In *Education for Perspective Transformation: Women's Re-entry Programs in Community Colleges*, Jack Mezirow identifies factors that characteristically impede or facilitate the progress of reentry students. His major theoretical finding was a phenomenon he termed *perspective transformation*, which he described as the central process occurring in the personal development of women participating in college reentry programs.

The re-entry programs perform a distinctive function as catalytic support systems fostering an altered perspective. By encouraging a critical appraisal of the culturally determined sex stereotypes that women have internalized and defended, they open up new vistas for self-realization.⁴⁹

His findings are consistent with Cross's study of learner motivations, which describes levels of self-esteem, attitudes about previous educational experiences, the importance of goals and expectation of success, and life transitions as factors influencing whether or not a person decides to participate in adult education and whether such a person can surmount various obstacles.⁵⁰ In a truly vicious cycle, low motivation tends to inhibit the participation of the very people who are undereducated and in greatest need of such programs and support services.

In his work with reentry women at Community College of Vermont (CCVT), Roger C. Cranse observed the following:

It's often a revelation to a student when she begins to understand that her mind is really capable of college work. It is in many respects not simply to learn a new skill . . . but to reconceive of oneself entirely. The floodgates of energy and initiative are open. A student takes charge of her learning. She has learned that she can learn.⁵¹

Cranse regards this sense of academic self-worth, along with an emphasis on thinking capability and a favorable organizational structure, as the essential prerequisite for effective adult-education programming. Accordingly, his Special Services program features a Dimensions of Learning course that makes no distinction between counseling

and teaching. Mature students, learning how to learn, are not given juvenile, low-level reading and writing assignments, but academic material that is appropriate for adults.

The CCVT approach is consistent with Malcolm S. Knowles's concept of *andragogy*, or "the art and science of helping adults learn."⁵² Whereas pedagogy assumes that the role of the learner is a dependent one, andragogy responds to the adult's need to be self-directing. Adults define themselves largely by their experience. To them, Knowles explains, "education is a process of improving their ability to cope with life problems they face now."⁵³ He recognizes that older adults feel apprehensive about entering a high school or elementary school to take classes. The physical environment affects the psychological climate for learning; child-sized chairs and tables are demeaning to adult learners. What is exciting about Knowles's ideas is that they may serve to improve youth education as well, because pedagogy and andragogy can be seen as two ends of a spectrum. Education then becomes a lifelong process of continuing self-development.

An Agenda for Adult Education into the Twenty-first Century

In the future, the part-time, adult student will increasingly replace the under-twenty-five, full-time student; women will continue to outnumber men in adult education programs. As the College Board phrased it, "The non-traditional student is quickly becoming the traditional student."⁵⁴ Through 1998, adult students will get progressively older as the baby boom cohort moves through higher education. In addition, standards for minimum acceptable literacy are higher today than ever before, and rapid changes in technology are already necessitating new skills and knowledge and stimulating increasing job mobility within the labor force. For adults who are outside the labor force or stuck in dead-end jobs, remedial education plus vocational-technical training are essential for developing self-sufficiency.

Massachusetts is one state where various public agencies, educational providers, and corporations are responding, often in tandem, to the need for adult education. As the statistics show, however, the collective response barely meets the demand. Adult learners, the poor especially, face numerous obstacles to educational advancement, even where tuition is waived or incentive grants are given. Policymakers may be unable to eliminate personal barriers, such as lack of interest or lack of time; but even if motivation cannot be legislated, an environment can be provided which encourages participation in adult education. Social and institutional barriers *can* be confronted by policymakers willing to accept the idea that adults requiring a second chance to learn deserve support in various forms. Massive outreach efforts that provide information, academic guidance, career counseling, and low-cost child-care services (all operating by day *and* in the evening) are some of the most critical needs. Furthermore, to avoid duplication of services and to allocate resources most effectively, agencies, educational institutions, and corporate providers must coordinate their efforts. If the Massachusetts economy is to remain competitive, such a widescale effort is imperative. The shrinking pool of available workers—owing to demographic factors referred to earlier—and the low unemployment rate will tend to produce a tight labor market and a demand for higher wages. Unless adult education, including the retraining and upgrading of current workers, becomes a priority, Massachusetts will be forced to turn to the unemployed and the unskilled to fill positions, and growth predicated on new skills will be retarded.

One concern of this writer is the matter of equity. There has been considerable

disparity in the amount and kind of education and training women get as compared to men. Social conditioning too often acts to deny full development of individual potential. The same can be said about the declining participation of black adults in higher education. Just as the rich are said to get richer, adults with higher levels of education are the ones who want and get more. Women and minorities of low socioeconomic status experience more deterrents to education along with higher attrition rates.

Another concern is that functional skills and narrow occupational training are often considered the endpoint of adult education, particularly for high-school dropouts, those who have not completed a college program, or displaced workers. Making these persons competitive in the labor market is a laudable goal, to be sure; the economic benefits to the individual and to society are self-evident. Job-training programs that contribute to low unemployment rates and a healthy business climate are constructive short-term approaches to industrial and human resource development. Long-range planning, however, is needed to ensure a competent work force and, at the same time, to assist adults in gaining the knowledge and coping skills necessary for adjusting to the various role changes required in adult life. Education, after all, connotes improved quality of life, a larger goal that should be considered by policymakers. In *The American Community College*, Arthur M. Cohen and Florence B. Brawer explain what lifelong learning really is and suggest an important relationship between general education and effective citizenship:

Lifelong learning is more than the opportunity for successive retraining as one's job becomes obsolete; it is access to the form of general studies that leads to understanding of self and society. And general education must not be optional, lest the gulf between social classes in America be accentuated as members of the elite group learn to control their environment, while the lower classes are given career education and training in basic skills.⁵⁵

For the larger goals to be realized, "an organic, systematic, philosophical articulation of how and why adults can beneficially experience higher education"⁵⁶ must be attempted. There must be a reformulation of existing structures which truly integrates adult learners, rather than tolerates them merely because they fill classrooms. The plethora of new terms—*experiential education*, *external degree option*, *credit by examination*, *competency-based learning*, *open universities*, *weekend colleges*, and so on—is a positive sign that the reformulation process is under way, albeit haphazardly. A range of philosophies and purposes is preferable to none.

We are under increasing pressure to realize the goals for adult education, both broad and narrow. The secondary schools fail to direct learning and encourage growth (Dewey's criteria for the value of school education)⁵⁷ for all young people, so there is a growing residue of undereducated adults looking to other educational providers for a second chance. The various constituencies for adult education are becoming increasingly aware that adults require programs and resources comparable to those available to traditional students: high-quality curricula and instruction, facilities and services, and financial aid and subsidies. Current enthusiasm for programs leading to improved job performance does not, however, mean that politicians are willing to support learning per se for adults. One reason for this is accountability: the efficacy of job-related education can be more easily assessed (for example, in terms of placements made) than the benefits of lifelong learning. While the collaboration among representatives of business, labor, government, and education may have a purely utilitarian motive, it is

nonetheless a welcome development—one that in time may lead these constituencies to recognize the need for policies, institutional arrangements, and appropriations to facilitate lifelong learning. Therefore, despite current limitations, we can be cautiously optimistic about opportunities for adult learners in Massachusetts. 🍷

Notes

1. Edgar J. Boone et al., *Serving Personal and Community Needs Through Adult Education* (San Francisco: Jossey-Bass Publishers, 1980), xi.
2. James R. Broschart, *Lifelong Learning in the Nation's Third Century* (Washington, D.C.: HEW Publication No. [OE] 76-09102, 1976).
3. Boone et al., 2.
4. Board of Regents of Higher Education, Commonwealth of Massachusetts, *Continuing Education in Public Higher Education in Massachusetts—Academic Year 1981–82*, June 1983.
5. National Center for Education Statistics, *Participation in Adult Education* (Washington, D.C.: U.S. Department of Education, 1981). According to the NCES report, adult education consists of all courses and organized educational activities taken part-time, as identified by respondents. Included among adult education participants were 1.2 million full-time students in elementary and high school and in college and vocational-school programs (more than six months in length) who took an adult education course in addition to their regular schoolwork. The majority (20 million) of the adult education participants consisted of those who were part-time students in an elementary, secondary, or vocational school or a college, as well as those who took a course but were not otherwise classified as students.
6. K. Patricia Cross and Anne-Marie McCartan, *Adult Learning: State Policies and Institutional Practices*, ASHE-ERIC Higher Education Research Report No. 1 (Washington, D.C.: Association for the Study of Higher Education, 1984).
7. Two examples of federal investment in education having a major impact on adults are the creation of the land grant colleges by the Morrill Federal Land Grant Act of 1862, their purpose being “to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life”; and the G.I. Bill of 1944, which provided for a vast program of government-financed education for veterans, more than doubling higher-education enrollments in the process.
8. Frederic Jacobs, “Initiating, Not Responding: The Role of Colleges and Universities in Meeting the Needs of Adult Learners,” position paper prepared for the Commission on Higher Education and the Adult Learner, 1981; the commission is sponsored by the American Council on Education, Washington, D.C.
9. Norman D. Kurland, “Financing Learning Opportunities for Adults: Policy Implications,” *School Review* (May 1978): 530.
10. Harold L. Hodgkinson, “Guess Who’s Coming to College: A Demographic Portrait of Students in the 1990s,” *Academe* (March–April 1983): 15.
11. Lincoln Steffens, “Sending a State to College: What the University of Wisconsin Is Doing for Its People,” in *Portraits of the American University*, ed. J. C. Stone and D. P. Nevi (San Francisco: Jossey-Bass Publishers, 1971), 119.
12. Hodgkinson, 19.
13. Anthony P. Carnevale, cited in Commission on Higher Education and the Adult Learner, *Adult Learners: Key to the Nation's Future* (Columbia, Md., 1984), 4.
14. Division of Employment Security, Commonwealth of Massachusetts, *Massachusetts*

Employment: Creating a Window of Opportunity in the Mid-1980s, 1985.

15. Andrew M. Sum et al., "Poverty Amid Renewed Affluence: The Poor of New England at Mid-Decade," *New England Journal of Public Policy* 2, no. 2 (Summer-Fall 1986): 6.
16. Division of Employment Security, Commonwealth of Massachusetts, *Massachusetts Employment*.
17. Sum et al., 26.
18. Ibid., 16.
19. Howard R. Bowen, *Adult Learning, Higher Education, and the Economics of Unused Capacity* (New York: College Entrance Examination Board, 1980), 1.
20. Harlan Cleveland, "Educating for the Information Society," *Change* 17, no. 4 (July-August 1985): 20, 17.
21. Bowen, v.
22. K. Patricia Cross, "Adult Learners: Characteristics, Needs, and Interests," in *Lifelong Learning in America*, ed. Richard E. Peterson et al. (San Francisco: Jossey-Bass Publishers, 1980), 81.
23. Cleveland, 18.
24. John B. Duff, "Addressing State Policy for Post-secondary Adult Learners," position paper presented to the Council for Adult and Experiential Learning/Commission on Higher Education and the Adult Learner, Washington, D.C., 1984.
25. Robert A. Fellenz, "The National Leadership Role Belongs to Professional Educators," in *Examining Controversies in Adult Education*, ed. Burton Kreitlow et al. (San Francisco: Jossey-Bass Publishers, 1981).
26. National Advisory Council on Continuing Education, *In the National Interest: Continuing Education*, Annual Report (Washington, D.C., 1984). The National Advisory Council on Continuing Education is a presidentially appointed body authorized by Congress in the Higher Education Act of 1965, as amended. The council's primary interests are continuing education for adults at the postsecondary level of instruction and the status of federal programs and policies as they affect this interest. Title I refers to "Continuing Postsecondary Education Program and Planning."
27. Although Congress passed the Lifelong Learning Act in 1976 (Title II-B of the Higher Education Amendments), hardly any money was appropriated to realize the aims of the act, which were to make available appropriate opportunities for lifelong learning for all citizens without regard to restrictions of previous education or training, sex, age, handicapping condition, social or ethnic background, or economic circumstance (Section 131 of P.L. 94-482).
28. This definition of functional illiteracy was developed by the Adult Performance Level Study, a major federally funded project carried out at the University of Texas in the mid-seventies, which tested the ability of a national sampling of adults to perform a variety of tasks judged essential to everyday living and working and whose successful completion was deemed to be dependent on a mastery of the basic skills. The U.S. Department of Education estimates were reported in the September 1984 newsletter of the Business Council for Effective Literacy.
29. National Advisory Council on Adult Education, *FY 1984 Annual Report* (Washington, D.C., 1985).
30. Cross and McCartan, 1.
31. Ibid., 4.
32. John C. Hoy, "The Next Threshold: Higher Skills and the New England Economy," *New England Journal of Public Policy* 2, no. 2 (Summer-Fall 1986): 91-119.

33. See note 14.
34. Author's conversation with George Hughes, assistant director, Bay State Skills Corporation, 26 March 1986.
35. Bay State Skills Corporation, *BSSC, 1981-86: Evolution and Innovation*, Annual Report (Boston, 1986).
36. For further information, contact Susan K. Moulton, executive director, Bay State Skills Corporation, 101 Summer Street, 2nd Floor, Boston, MA 02110; telephone 617-292-5100.
37. Board of Regents of Higher Education, Commonwealth of Massachusetts, *Enrollment Auditing System Report, State-Supported Enrollment, Fall 1984*, 30 December 1985.
38. Board of Regents of Higher Education, Commonwealth of Massachusetts, *Statement Regarding Tuition Waiver Bills*, 18 March 1986.
39. Ibid.
40. The state's colleges and universities serve approximately thirty-eight thousand part-time students. According to *MTA Today* (18 February 1986), the Adult Learners Program, limited to AFDC recipients, was the only state scholarship program open to part-time students prior to the establishment of the Part-Time Student Grant Program. Data supplied by the American Council on Education show that part-time enrollments nationwide grew by 65 percent between 1972 and 1982. Over that same period, there was a 77 percent increase in enrollment of students over age thirty-five and a 70 percent growth in enrollment of students between twenty-five and thirty-four years of age; yet part-time students, adult or not, have received very little federal or state aid (American Council on Education, *Factsheet on Part-time Students* [Washington, D.C., 1985]).
41. FTE refers to a method of determining student enrollment by semester, usually for financial-planning purposes. Full-time students are assigned a value of 1.0 FTE. The enrollment of part-time students is counted as a fraction of the minimal full-time course load. For example, if four courses constitute the minimal full-time load for a semester, then a student enrolled in just one course would be assigned a .25 FTE, a student enrolled in two courses would be assigned a .50 FTE, and a student enrolled in three courses would be assigned a .75 FTE. The total FTE for the semester is the sum of the assigned FTE values for all full- and part-time students.
42. Department of Education, Greater Boston Regional Education Council, Commonwealth of Massachusetts, May 1985.
43. Department of Education, Commonwealth of Massachusetts, *Annual Accountability Report for Vocational Education, FY 1984*.
44. Department of Education, Bureau of Student, Community and Adult Services, Commonwealth of Massachusetts, 1985.
45. Arthur M. Cohen and John J. Lombardi, "Can the Community College Survive Success?" *Change* 11, no. 8 (November-December 1979): 27.
46. John D. Millett, *Conflict in Higher Education* (San Francisco: Jossey-Bass Publishers, 1984), 252-53.
47. K. Patricia Cross, *Adults as Learners* (San Francisco: Jossey-Bass Publishers, 1981), 99.
48. Jack Mezirow, *Education for Perspective Transformation: Women's Re-entry Programs in Community Colleges* (Center for Adult Education, Teachers College, Columbia University, 1978), 8.
49. Author's conversation with Ann Coles, director, Higher Education Information Center, Boston, 29 December 1986.
50. Cross, *Adults as Learners*, 125ff.
51. Roger C. Cranse, "Dimensions of Learning at Community College of Vermont," 6; paper presented at Vermont State Colleges Basic Skills Symposium, held at Johnson State College, Johnson, Vermont, 1982.

52. Malcolm S. Knowles, *The Modern Practice of Adult Education* (Chicago: Association Press, 1980), 43.
53. Ibid., 53.
54. College Entrance Examination Board, cited in Daniel W. Shannon, "Traditional Students and Adults: Are They Fundamentally Alike in All Unimportant Particulars," paper presented at the 1985 National Conference on Higher Education, American Association for Higher Education, Chicago, March 1985.
55. Arthur M. Cohen and Florence B. Brawer, *The American Community College* (San Francisco: Jossey-Bass Publishers, 1982), 327.
56. Jacobs, 9.
57. John Dewey, cited in Arthur Levine, *Handbook on Undergraduate Curriculum* (San Francisco: Jossey-Bass Publishers, 1978), 258.

