

A joint project of MassINC & Mellon Trust

This report is a primer on the three vital rungs of our state's workforce development system: adult basic education, job training programs, and our community college system. It received widespread media coverage, and is now inspiring numerous efforts to improve the state's disparate efforts to empower citizens to improve their education and skill levels. Here again, the report provides numerous facts that are critical to understanding the policy challenges ahead. For example:

- Did you know that our own state Department of Education estimates that there are 877,000 adults in Massachusetts who are functionally illiterate--meaning they can't read and write at a 5th grade level?
- Did you know that the waiting lists for adult basic education and English as a second language courses can take two years or more in some of our big cities?
- Did you know that "job training programs" serve only about 11,000 people a year?
- Did you know that key states we compete with for high-tech jobs, like California, Washington, and Illinois, all enroll 2 1/2 to 3 times as many people per capita in community colleges as we do?
- Did you know that the average Massachusetts community college student is 29 years old and attends part-time?

Executive Summary

Upgrading the Skills and Education of the Adult Workforce

Introduction

In many ways, the Massachusetts economy is performing well these days -- unemployment is low, employment is growing at the same rate as the country as a whole, and tax revenues are up dramatically.

But while many of our citizens -- particularly those with college educations and high-tech skills -- are prospering, the economy's demand for skilled workers is leaving behind hundreds of thousands of less-educated workers who are falling out of the broad middle class.

At the same time, Massachusetts is heading toward a serious skilled labor shortage. While employment grows at the national rate, population is growing less than half as quickly as elsewhere in the country. Surveys of Massachusetts businesses confirm the difficulty in obtaining skilled workers.

Both of these problems -- greater income inequality and skilled labor shortages -- point in the same direction: Massachusetts should embark on a major initiative to upgrade the skills of its adult workforce.

Industry's Increasing Demand for Skills

A generation ago, practically any adult who was willing to work hard could work his or her way into the broad middle class, earning enough to raise a family regardless of education level or knowledge of specialized skills.

The number of jobs that require only effort and perseverance is shrinking dramatically. To remain competitive, American industry is placing greater reliance on the teamwork, skills, initiative, and common sense of its front-line workers. As it does so, it is looking to hire workers who speak English, who read and write at high school levels, who are comfortable with numbers and can operate computers, and who can communicate effectively both orally and in writing with fellow workers.

This trend can be put in dollars and cents. In Holyoke, for example, job applicants with good reading, math, and work skills can find good entry-level jobs with local manufacturers at \$12 an hour or more (about \$24,000 a year), even if they have no vocational skills specific to the particular company hiring them. On the other hand, applicants with limited English or with poor reading and math skills will have to settle for jobs as laborers -- jobs paying \$5 to \$6.50 an hour. High school literacy has thus become a critical job skill.

But a high school education isn't enough. The surest path to a middle-class income is to complete at least two years of education beyond the high school level. Vocationally oriented associate degree programs combine a year of college-level instruction in math, literature, composition, and other liberal arts courses with a year of in-depth career training and lead to professional careers in such fields as law enforcement, nursing, early childhood, dental hygiene, or high tech manufacturing.

Surveys by the state's community colleges show that in their first year on the job, graduates of the college's vocational programs average \$25,000 to \$30,000 a year. After a few years on the job, they can expect to be earning \$35,000 or more. This is roughly twice the pay of those completing short-term vocational courses lasting only 3 to 6 months.

The Skills Premium Is Growing

The increased skill levels demanded by business are reflected in the ever-increasing wage premium paid to those with college education. In 1979, a college graduate in Massachusetts earned 40% more than a high school graduate; in 1994, this premium had risen to 69%. National data show that in 1995 male college graduates aged 25-34 earned 52% more than high school graduates; the premium had been only 19% in 1980. Those with even some college earned 11% more than high school graduates. For women, the effect of education on income is even greater. In 1995, college graduates earned 91% more than high school graduates; those with some college earned 28% more.

This report places great emphasis on the importance of associate degrees. Although the data on which these charts are based does not report separately on 2-year degree holders, other data suggests that their earnings premium over high school graduates is substantially greater than "some college", a category dominated by those who attended for a year or less. Associate degree holders can expect an income premium roughly half that of college graduates -- 26% for males and 45% for females.

What is most remarkable is that the education premium has been increasing at the same time that the educational level of the workforce is rising. All else equal, the premium for a college degree should fall as the college-educated share of the workforce rises. Saturated with college graduates, employers should be paying less. In fact, quite the opposite is the case. Between 1979 and 1994, families headed by college graduates have increased from 20.5% of all Massachusetts families to 32.0%. At the same time, the share of families headed by a high school dropout has fallen from 29% of the total to 13.6%. Incomes of college graduate families were twice those of high school dropouts in 1979; they're now three times higher.

These findings lead to an unmistakable conclusion: the skill mixture demanded by industry is shifting upward even more rapidly than the improvement in average education levels. This means that if they'd been available, companies would have hired an even higher number of skilled workers.

This is a profoundly optimistic finding. It means that we can continue to upgrade education levels and find good earnings opportunities for an ever more educated workforce. The Massachusetts economy is far from the point of diminishing returns with respect to the payoff from increasing education. We can be confident that the broad-based adult education initiative proposed in this report will in fact raise incomes for thousands of Massachusetts families.

Broad Middle Class Splitting into Two

Within the seeds of this optimistic finding is a warning. If we are not able to upgrade the education and skill levels of our less-educated workers, the economic changes that are sweeping our state will continue to divide the Commonwealth into a two-tiered society of haves and have-nots.

In January 1996, MassINC's report *The State of the American Dream in New England* described what the sweeping changes in the economy have meant for ordinary families across Massachusetts:

Increasingly, the broad middle class is dividing into two distinct groups ... and education lies at the fault line between these two groups. One group, primarily those with college degrees or postgraduate educations, is moving ahead in the new economy...

The second group, primarily those with a high school degree or less, is falling behind in today's world. Their wages and incomes are falling, their career job prospects are

decreasing, and the unions that used to help protect their wages and working conditions are vanishing.

The American economic boom of the post-World War II era, which generated and sustained broadly shared economic prosperity across a deep and wide middle class, is now under siege. Restoring it is one of the central challenges for public policy and public leadership.

Challenge -- Raising the Education and Skill Levels of Adults

The economy's growing demand for workers with higher education and skill levels should be good news for Massachusetts. After all, we've always prided ourselves on our Yankee ingenuity and skilled workforce. And we have always valued public education for young people -- from its founding here by Horace Mann through the Education Reform Act of 1993 -- as the surest route to self-improvement and broad economic health.

Recognizing the importance of education, Massachusetts passed the landmark 1993 Education Reform Act with broad support from across the political spectrum. Implementation of this reform is now in its fifth year. Both the Governor and the Legislature have been steadfast in their support of the law's basic premise -- that the state can improve public education for young people by providing an adequate level of funding to each of the state's schools while simultaneously raising standards and holding schools accountable for improved student performance. Other programs for educating Massachusetts' young people, such as expanded early education and school-to-work programs for those looking to enter the workforce directly from high school, also enjoy political support.

Despite the broad support for programs to educate young people, there is much less knowledge among policymakers, and even less agreement, on how to address a problem equally large: how to improve the skill and education levels of the hundreds of thousands of Massachusetts adults who have only a high school degree or less and who lack the basic language and math skills necessary to earn a middle-class income in today's economy. Important as it is, reform of the public schools will take two or three decades to raise the skill levels of our workforce. We can improve our state's competitive position more quickly -- and its distribution of income -- by combining education reform with a major adult education initiative.

More than Just Short-Term Skills Training

The adult education initiative proposed here for Massachusetts goes well beyond what normally comes under the term "job training". Typically, job-training programs are limited to those out of work, are funded primarily by the federal government, last four to six months, and consist primarily of short-term skills training designed to get trainees

back to work. This report's analysis of the major federally funded job training program in Massachusetts shows an impressive track record of finding work for a low-income population heavily weighted with welfare recipients, minorities, and those with less than a high school education.

Congress has been cutting appropriations for vocational skills training because studies show that the impact of such training begins to fade after five or ten years. But Congress is drawing the wrong lesson from these results. As the Massachusetts experience suggests, short-term training is a valuable first step to help people find employment. Lasting results require a greater investment in training including a course of study going beyond the high school level.

Useful as these short-term skills programs are to help the unemployed find work, they are a relatively small part of a broader world which includes adult basic education, college programs leading to an associate degree, union-run apprenticeship programs, and employer-sponsored on-site training. Indeed, the major Department of Labor short-term training program reaches only 11,000 adults in Massachusetts each year, while adult basic education serves over 20,000 and community colleges have over 70,000 students (of whom approximately half are 30 or older) enrolled in credit courses and 28,000 more in not-for-credit courses.

Massachusetts needs a comprehensive adult education initiative because the problems of inadequately prepared workers and falling real incomes go well beyond those actually out of work. To provide a workforce for today's high productivity companies, we need to increase the skills of hundreds of thousands of people already in the labor force. At one end of the spectrum, this means improving basic literacy, math, and English skills for those who cannot read or compute at high school levels. At the other end, secure, middle-class incomes increasingly require the mix of advanced vocational training and college-level literacy contained in courses for the associate degree or its equivalent. While "job training" is primarily funded from federal sources, adult basic education and community college (associate degree) programs are primarily state responsibilities. While a Massachusetts adult education initiative can draw on federal funds, it must ultimately be a state policy decision supported in large measure by state appropriations.

Scope of the Problem -- Hundreds of Thousands of Functionally Illiterate Adults

The scope of the adult education problem is enormous. The Massachusetts Department of Education estimates that over 877,000 adults (out of a total adult population of 4.6 million) are functionally illiterate -- they cannot read and write at the 5th grade level. This skills deficit makes them totally unprepared for any but a rapidly shrinking number of the lowest paying jobs in the new economy.

Over the last three years the Legislature has enacted major increases in state spending on adult basic education. With this increased funding, the Department of Education hopes to enroll some 23,000 adults in basic education and English as a Second Language classes. This represents only 3% of the estimated population of functionally illiterate adults. There are currently 15,000 adults waiting to get into basic education classes. The average

wait is six months for remedial education programs and nine months for ESL, but in the larger cities some people have been waiting two years for English classes.

Scope of the Problem -- Shortfall in Community College Slots

The 15 Massachusetts community colleges will inevitably play a large role in any large-scale adult education initiative aiming toward the associate degree. They offer the bulk of two-year, vocationally-oriented, college-level programs available in Massachusetts, although there are also programs offered by the state colleges, the University of Massachusetts, and private colleges. The community colleges already offer education to adults. The average age of entering freshmen is 25 and the median age is 29 or 30. Most community college students work and attend school part-time. Minorities account for 20% of community college enrollment.

Despite their importance as a vehicle for offering advanced education to adult workers, the capacity of Massachusetts community colleges is surprisingly small compared to other states. Massachusetts has only 1.3% of its population enrolled in for-credit courses at its community colleges; the national average (at 2.1%) is 50% higher. States with which we compete for the high-tech businesses and jobs of tomorrow -- states like California, Washington, Illinois -- enroll two to three times as many students in community colleges as we do. This discrepancy is not explained by the heavy concentration of private universities in Massachusetts; Harvard, MIT, and Williams do not compete with the state's community colleges.

Job Skills -- A Critical Resource for the Massachusetts Economy

The fact that so many of our adults lack the skills and educational levels to command decent wages in today's economy is made worse by the fact that Massachusetts' economic future is more dependent on a skilled workforce than that of almost any other state.

We don't have Texas' oil, California's warm weather, Illinois' central location, Washington State's low electricity costs, or Mississippi's low wages. Instead, Massachusetts has built a vibrant economy on the base of our strong university research base, our access to venture capital and banks with high-tech lending experience, our entrepreneurs, and our skilled workers. Even in "low-tech" industries, many companies have been able to stay in Massachusetts and operate at a profit because they've used trained workers and new technology to lower costs and improve product quality.

For Massachusetts, then, a strong adult education initiative is not simply a matter of economic justice but also a matter of competitive necessity. And with many of our key national competitors investing in upgrading the skills and education levels of their adult workers, we neglect such investments at our peril.

Major Findings

Expand Adult Basic Education

Recommendation:

Expand Adult Basic Education to minimize waiting lists for those who want instruction to learn to speak English or to improve basic math and reading skills.

Rationale:

High school literacy is a prerequisite to any kind of decent job. The current state program -- despite generous increases in state funding in recent years -- falls far short of the need. The state's Department of Education estimates that 877,000 Massachusetts adults are functionally illiterate, meaning they cannot read at the 5th grade level. Current adult basic education programs will reach just over 23,000 adults by the end of the fiscal year -- barely 3% of those who need such classes.

There are 15,000 adults on waiting lists today for adult basic education. The wait can be as long as two years for immigrants wanting to improve their English -- especially in large urban areas.

As funding support has expanded in recent years, the waiting lists have not shrunk but grown, as thousands more hear of neighbors pursuing this most basic opportunity at self-improvement, and then sign-up themselves.

Recommendation:

Link adult basic education to employment and offer it at the work-site wherever possible.

Rationale:

Current adult basic education programs have a high turnover rate. Many participants quit before achieving their goal of improved skills in basic literacy and mathematics.

Experience with many successful adult basic education efforts suggests that tying adult basic education to the work-site will provide more interesting curriculum and more linkages between what students learn and what they need to know to excel at work. The close ties to work and personal needs like transportation and child care keep student enthusiasm and participation high.

View Short-Term Training as a Step Toward College**Recommendation:**

Support short-term training programs as a means to help the unemployed find work.

Rationale:

Job training programs in Massachusetts have a good track record of preparing low-income workers for jobs well above the minimum wage. These programs are particularly successful for women, minorities, and those with low education levels. They've placed 2/3 of their students, at wages averaging 8.64 an hour (\$17,280 a year).

Recommendation:

Modify the two-month work requirement to allow welfare recipients who wish to do so to

complete up to 10 months of job training. Encourage welfare recipients to work toward the associate degree by extending the 24-month benefit limit to cover at least some of the time spent in college study.

Rationale:

Successful training programs for people with less than a high school education average 2 or 3 times the two-month work requirement of the current welfare reform law. It is unrealistic to expect that a single mother can raise her children, work 20 hours or more a week, and attend full-time training classes. Allowing her to attend training classes full time for up to 10 months in order to improve basic reading skills and to obtain vocational skills likely to bring her a job paying \$8.00 an hour or better is a far more promising way to get her into the workforce and to point her toward extended education.

Recommendation:

Maintain a diverse network of short-term training vendors offering a variety of innovative techniques, including individually-paced learning, open-entry scheduling, strong counseling and life-skills support, internships with local employers, and in-depth help with resumes, interview techniques, and job development.

Rationale:

Competition among providers has led to a wide range of innovative programs. A return to the classroom is particularly difficult for those who cannot read well, who may have dropped out of school, or who have just lost a job. Those who need a job as soon as possible may not be able to wait several months for a training course to begin. Programs which offer flexible starting times, which allow students to learn at their own pace, which are located conveniently, and which offer good counseling support are more likely to be successful in reaching vulnerable populations. Those run by community-based organizations such as the Urban League or by trade unions may be particularly successful with trainees who feel a particular affinity for these organizations.

Recommendation:

View short-term vocational training not as an end in itself but as a first step toward college. Community colleges should work together to build a continuum of training starting with basic education and short-term skills training (leading to employment) followed by part-time college study leading to an associate degree.

Colleges should offer academic credit for high-quality training courses given by community organizations to underscore that these are a first step toward a college degree. Community organizations should encourage their graduates to continue their education at the college level and offer counseling and other support to those who do so.

Rationale:

It is unrealistic to expect that short-term training programs can prepare low-income workers for permanent careers at middle-class wages. These programs can help get their trainees back into the workforce. Once there, they'll have to continue to upgrade their skills through college courses or employer training -- just like other adult workers.

Offer Universal Access to Two Years of College

Recommendation:

Massachusetts should guarantee that anyone who wishes to do so has access to two years of college at a net cost to the student of about \$500 per year, with pro-rated help to part-time students.

Rationale:

Vocationally-oriented community college programs provide an entry point to professional and technical jobs with middle-class wages for thousands of students, many of whom are minorities, immigrants, or the first in their families to go to college. At \$25,000 a year or more, the wages earned by those with associate degrees are substantially higher than the average for those with only a high school degree or less.

The current cost of attending community college in Massachusetts -- \$2,540 a year for full-time students -- is 73% above the national average and is the 2nd or 3rd highest in the country.

Recommendation:

Expand the current state scholarship program to fill in many of the gaps in the federal Pell and Hope scholarships, with particular emphasis on getting help to part-time students who must support themselves and their families while going to school. Students wishing to attend private colleges should be able to apply the support they would receive at a public school toward private school tuition.

Rationale:

The Pell and Hope scholarships won't reach everyone. They provide little or no help to thousands of low-income students seeking to improve their skills by working their way through college.

The Pell grants are based on family income in the prior year, so that those with working spouses or those who are unemployed now (but who worked last year) will not be eligible. The Pell income guidelines preclude help to single adults working their way through school. A woman earning \$7,000 a year, for example, is expected to use \$2,000 of this toward college support. As a full-time student, she'd get a Pell grant of about \$500, compared to current tuition and fees at public community colleges of \$2,500 a year. As a part-time student she'd be eligible for even less.

The Hope program is of greater benefit to middle-class than low-income students; it provides no help to someone with income so low he pays no federal income tax. Moreover, the Hope tax credit is received in the spring following the school year; tuition must be paid up front. The Hope credit is good for only 2 calendar years and is limited to those studying at least half time, so it cannot provide ongoing support for a working student who finishes an associate degree in four or five years.

Expanding state scholarship support is preferable to simply reducing tuition to \$500 or even to zero. At such low tuition levels, Massachusetts would have to replace with state money the substantial Pell and Hope support many students would otherwise receive. Also, such low tuition would reduce competition by undercutting the position of private colleges.

Reform Community College Structure

Recommendation:

Expand the capacity of the Massachusetts community colleges as increased scholarship support and closer integration with short-term job training succeed in increasing enrollment. Advanced vocational education for adults is a critical part of the community college mission.

Rationale:

Any large-scale program to encourage adult workers to return to college will inevitably mean a major expansion of the community colleges, which serve a higher percentage of minority students than other parts of the higher education system and which already enroll an older student body, mostly of part-time students who also work.

Massachusetts lags many of our national competitors in the number of students enrolled in community colleges. States with whom we compete for the high-tech businesses and jobs of tomorrow -- states like California, Washington and Illinois -- enroll two to three times as many students in community colleges (in relation to population) as we do.

Recommendation:

Use increased funding for community colleges as a lever for change, to include allowing regular faculty to teach night classes and having state incentive funds to encourage innovative partnerships with private business, all without eliminating the flexibility and entrepreneurial spirit which makes so many of these programs successful.

Rationale:

Despite their emphasis on working students, the community colleges are not allowed to assign regular faculty to nighttime classes. To assure flexibility and quick response, many of the colleges' most useful vocational programs are offered with neither academic credit nor state financial support.

Base the System on Customer Choice with Strong Regional Coordination

Recommendation:

Continue to base the job training and education network on competition between alternative providers. Expand efforts to allow individual choice in selection of training provider.

Rationale:

Competition encourages vendors to innovate and meet student needs. It also assures that good programs can expand and poor ones be phased out.

The federal reforms now under consideration in Washington also move in the direction of competition and individual choice.

Recommendation:

Regional employment boards (REBs) should coordinate the adult education initiative at the labor market level. They should be provided strong professional staffs to enable them to publish vendor performance data, to select one-stop job center providers, to help select adult basic education vendors, to oversee coordination between community colleges and short-term training vendors, and to enable groups of employers in various industries to come together to organize training initiatives and provide technical advice to training providers.

Rationale:

REBs have a business majority and a business chair, but bring together elected officials, educators, union leaders, community colleges, and training vendors in each of 16 labor market areas around the state.

Individual consumer choice will work only with solid information on vendor programs and performance. As a neutral party with strong representation from business, labor, and local government, the Regional Employment Boards are the appropriate agency to provide data on training results for all vendors.

Encourage Incumbent Worker Training**Recommendation:**

Encourage training of currently-employed workers ("incumbent workers") by creating incentive grants that community colleges and other providers can use to start training partnerships with interested companies. Leverage state funds to help start up new incumbent worker training programs, especially in small and mid-sized companies. This training should be paid for in part by utilizing a small fraction of the Unemployment Insurance Trust Fund.

Rationale:

Most business-funded training is in larger companies and is focused primarily on higher level workers and strictly vocational skills. Business is less likely to fund programs of basic education for entry-level workers.

It is particularly difficult for small and medium-sized businesses to begin training programs. State subsidies to reduce initial costs will encourage more companies to set up programs; once the value of such programs is established, the programs can be largely

self-supporting. On-going state support may be appropriate for the adult basic education component of training programs.

It makes little sense to wait until workers are downsized or laid off before offering them training assistance. Incumbent worker training will save money by helping many workers to avoid unemployment or to find new work more quickly; it is also easier for workers to learn new skills when they are not under the financial stress of unwanted unemployment.

Incumbent worker training is also a key factor in helping Massachusetts companies control costs and remain competitive.

Education programs closely linked to the work site are more likely to succeed -- workers do not need to make separate transportation and child care arrangements, and curricula with frequent reference to daily workplace problems and events are more likely to engage worker interest.

The community colleges have been successful in helping a number of companies start such training programs. Growth of such training is limited not by business' willingness to pay, but by funding mechanisms which discourage the colleges from adding the marketing and program development staff to develop new partnerships.

A Training Budget for Massachusetts

A rough calculation suggests that an increased expenditure of under \$160 million per year could double adult basic education, launch the expanded Massachusetts scholarship program, expand community college capacity, staff the REBs, expand the number of short-term training slots, and fund the incumbent worker training incentives.

The evidence is clear that people willing to put in extra time to improve basic reading and math skills and to go to college have taken their destiny in their own hands and can use this education to achieve substantial increases in their earning capacity. Expanding opportunities for those who are ready and willing to help themselves will go a long way toward addressing two critical problems: rising income inequality and the growing shortage of skilled workers.