
Building Skills for the New Economy

A Policymaker's Handbook¹

by Robert D. Atkinson

The New Economy creates both the opportunity and the obligation to design a new workforce development system. To be effective, this new system must be consistent with the features and logic of the New Economy. This paper first discusses the new labor market and work systems. It then lays out eight principles that all levels of government, but particularly the states, should follow in designing a workforce development system for the New Economy. Based on these principles, it then lists 19 specific steps elected officials, program managers, and other policymakers can take to craft a more effective system that will give workers the tools they need to succeed in the New Economy.

The New Labor Market

The New Economy provides two challenges for crafting an effective workforce development policy. First, as skills become more integral to boosting productivity growth, many companies need workers with higher skills. Second, as the new labor market becomes less stable and more risky, workers need new tools with which to successfully navigate it. As Assistant Secretary of Labor for Employment and Training Doug Ross, a former Progressive Policy Institute (PPI) fellow, stated, if the New Economy "is to restore to Americans some effective control over their economic lives, it must offer opportunities and resources for navigating this new labor market."

The New Economy is more dynamic, faster, and entrepreneurial. With dynamism, however, comes risk. Up to a third of all jobs are in flux every year (meaning they have either recently been added to, or will soon be eliminated from, the economy).² As new companies spring up and established companies respond to change and competition, fewer workers can look forward to long careers with a single employer. For example, median job tenure for males declined from around six years in the mid-1980s to five years in 2000.

This job "churning" means that, because companies can retain less of their investment in training, they invest less. As a share of GDP, business investment in training fell 18 percent between 1988 and 1999.

Second, it means that the old forms of security workers enjoyed -- bound up as they were in large stable corporations, strong unions, and the welfare state -- have dramatically declined. Employees must now continually reinvent themselves throughout their working lives, even if they remain with the same employer. And the responsibility for getting the education and training an employee needs has shifted from the company to the individual. As a result, skills and adaptability have become the new job security.

The occupational and industrial structure has also evolved. Knowledge-based jobs (those requiring postsecondary, vocational, or higher education) have grown as a share of total employment. For example, there were fewer than 5,000 computer programmers in 1960; today there are more than 1,400,000. Managerial and professional jobs have increased from 22 percent of all jobs in 1979 to 36 percent in 1999. And jobs requiring an associate degree or above are expected to increase from 21.8 percent in the late 1990s to 23.3 percent by 2006. Fortunately, the education of American workers is increasing. The share of the workforce with less than a high school education has declined from more than 35 percent in 1970 to less than 11 percent now, though the pace of decline slowed in the '90s. An increasing share of the workforce that once finished only high school is now going on for more education, either at four-year or two-year colleges.

Finally, the New Economy is changing the organization of work. Old hierarchical, boundary-laden, and static organizational structures are giving way to new kinds of "learning" organizations with flattened hierarchies; more decision making and problem solving authority in the hands of front-line employees; self-managed, cross-functional teams instead of bureaucratic "assembly lines"; and extensive cross-training, teamwork, and flexible work assignments in the place of elaborate work rules. More than half of the nation's largest corporations introduced new work designs such as team building in the 1990s. As MIT economist Paul Osterman has documented, an increasing share of U.S. companies are moving away from an old economy "Taylorist" form of production toward a high-performance work organization model that organizes work through teams, utilizes workers' skills, and drives responsibility down to front-line workers.³ (See Table 1) For example, the Miller Brewing Company's brewery in Trenton, Ohio, produces 50 percent more beer per worker than the company's next-most-productive facility, in part because a lean, 13-member crew has been trained to work in teams to handle the overnight shift with no oversight.⁴

Table 1: Percentage of Companies Adopting High-Performance Work Organization Practices

	1992	1997
Quality Circles	27.4%	57.4%
Total Quality Management	24.5%	57.2%
Job Rotation	26.6%	55.5%

Source: Paul Osterman, *Securing Prosperity*⁵

Principles for Reinventing Workforce Development Strategies for the New Economy

As workforce development plays a more central role in economic development, states, and local governments will need to adopt new approaches and institutional arrangements. In doing so, they should follow a number of key principles:

Principle 1: Invest in Training, Rather Than Giving Firms Subsidies. In the old economy, places sought to get more jobs principally by attracting and retaining companies. The main tools to do this were tax holidays, subsidies, and other giveaways designed to keep business costs low. When training was part of the economic development tool bag, it often meant paying for training in skills that were so company-specific that the company should have paid for them.

In the New Economy the goal should shift from attracting any and all kinds of jobs by keeping costs low to raising average per capita incomes by supporting the creation and expansion of higher wage jobs. This means that workforce development should now be at the center of a region's economic development efforts. It means that education and training are even more important to economic development than are traditional tools, such as business recruitment. It means that instead of providing large subsidies to companies, states and cities would be better off investing in boosting the skills of their region's current and future workforce.

Principle 2: Leverage Employer Investments. Many managers of government programs believe that companies will not match public funds, or that requiring matching investments is unfair, especially to smaller firms. But when companies make a commitment, demonstrated by investing their own funds to match public training dollars, the training will be more effective and help more workers.

Principle 3: Encourage Firms to Become Learning Organizations. Public programs have historically focused on those out of the labor market and have ignored firms and incumbent workers. However, as the quality of the workforce increasingly determines a region's economic future, policies need to focus on helping all workers become more skilled. But, paradoxically, if government programs focus in a narrow way on training workers, without changing what firms do, limited public funding means they will never have the required impact. As a result, public programs should focus less on training workers per se, and more on initiatives such as regional skills alliances that encourage firms to work together to become committed to seeing ongoing training and skills development as a competitive advantage. The slogan "If you give a man a fish, he eats for a day, but if you teach him to fish, he eats for life" applies here.

Principle 4: Address Both Short-Term and Long-Term Skill Shortages. Firms face two kinds of skill shortages. Short- and moderate-term "spot" shortages of particular skills in a regional market can be addressed by ensuring that the workforce development system is adaptive and has close links between employers and training providers. In contrast, longer-term shortages of workers with technology skills need to be addressed by expanding opportunities for science, math, and engineering education. For example, the number of students receiving bachelor's degrees in engineering has fallen to a 17-year low.

Principle 5: Expand Learning Choices for Workers. A central characteristic of the New Economy is choice. People are used to vastly more choices in their daily lives. Employment and training policies and programs should be no different. As a result, states and localities should work to provide citizens with real choices in the kinds of education, training, and other workforce services they can avail themselves of.

Principle 6: Demand Accountability. It is impossible to know if programs and policies work unless there is a standard upon which they can be evaluated. States, localities, and other areas need to develop clear and articulated goals for what they want to achieve. And then set measures that reach those goals and track results. Such results-oriented efforts not only help a region evaluate its own efforts, but also hold other institutions receiving public monies accountable.

Principle 7: Use Information Technology to Give People New Tools. Information technology (IT) can revolutionize the workforce development system, just as it is revolutionizing other parts of our economy. By enabling self-service applications through the Internet or kiosks, IT can dramatically cut the per-person costs of providing services, making it possible to reach more of the Americans who need help. But the Internet and other technologies can also be used to give Americans a whole host of new tools to manage their careers, upgrade their skills, and get access to services.

Principle 8: Be Customer-Focused. Developing policies and slogans about being customer-focused is a lot easier than actually doing the hard work of being customer-focused. States and localities need to make sure that all their programs and efforts make sense from the perspective of workers and firms, not the government agency or funding recipient.

Steps to Take

1) Target Limited Training Funds to Firms That Are Upgrading Technology and Skills, or to Firms That Are Training Workers in Transferable Skills. Historically, many cities and states have used limited training dollars as a lure to convince firms to locate or stay in the

area. While such incentives are better than simply giving firms free land or tax holidays, they still subsidize something that the firm is likely to have done on its own and has few spillover benefits. States and cities should instead support training that leads to more transferable skills or to upgrading of technology in the firm. States should provide tax credits for employer expenditures for tuition reimbursement. They should co-fund training that results in broader skill acquisition. For example, a program called Advance Indiana does this by providing funds for employers to spend on training that results in a certificate (GED, AA degree, technical certificate).

2) Shift Support from Individual Firms to Regional Skills Alliances. If the public sector serves as a catalyst and provides matching funds, firms are willing to come together to jointly address common training needs. For example, as part of the Wisconsin Regional Training Partnership, a number of metal-working firms, in conjunction with the AFL-CIO, used an abandoned mill building to set up a teaching factory to train workers in needed skills. The workers learn directly on state-of-the-art manufacturing equipment. The Massachusetts Software Council trains dislocated workers in software programming skills. Oregon's Sectoral Strategies Program focuses on getting a significant number of firms in particular sectors to work together to address issues such as workforce development. The city of Fort Wayne, Indiana, supports a training alliance in which companies pay as much as \$3,500 per year in member fees. States and regions should develop matching-grant training alliance programs, particularly ones focused on sectors that play a key role in their regional economy.

In addition, they should take advantage of the new Regional Skills Alliance program managed by the U.S. Department of Labor. Based on a PPI proposal for federal support for industry-led regional skills alliances,⁶ a number of members of Congress, including Sens. Joe Lieberman (D-CT) and Paul Sarbanes (D-MD), and Reps. Jim Moran (D-VA) and David Drier (R-CA), worked to ensure that a share of the fees collected from the H1B visa program was dedicated to a regional skills alliance program.

3) Design Incumbent Worker Training Programs That Encourage Firms to Become Learning Organizations. Many states fund programs to train incumbent workers. However, these programs need to do more than simply train workers; they need to help firms become ongoing learning organizations. Programs can do this by requiring firms receiving assistance to develop long-term work-based training plans and methods for workers to pass knowledge to each other, and by encouraging employers' continuing investment in training. For example, Louisiana's program requires a firm and a training provider to engage in a detailed planning process as part of submitting a training grant proposal. The state also allows the training program to be up to two years in length. Both aspects support the firm in thinking about an overall training plan -- not just the immediate training problems. Additionally, Louisiana funds "train the trainer" efforts. Since the technical

schools tend to hire instructors from the workplace, this provides these employees with better skills in transferring knowledge and helps support the continued transfer of knowledge that is carried on after grant activities have ended.

4) Engage Employers in the Design of the Curriculum. If regions are going to need the capacity to have a "real time" supply of skilled workers matching the changing needs of companies, technical schools will need to be able to quickly develop flexible work-based programs that train and educate for more immediate skill needs. States should provide incentives to ensure employer and industry involvement in designing needed standards, curriculum, and programs. For example, the Cleveland Advanced Manufacturing Program (a part of the NIST Manufacturing Extension Partnership program) works closely with firms in particular sectors to identify joint training needs, and then in turn works with training providers to help them design courses and curriculum.

5) Connect High School to Work. For many students who are not college-bound, the last years of high school are not relevant or of interest. If high school curriculum were redesigned so that the senior year focused more on the world of work, some students would take advantage of this and get more education and training than if they just drifted through high school, or worse, dropped out due to lack of interest. Whether through internships, mentoring, or structured workplace learning, such occupational exposure can be an important component of education reform.

Some places are already doing this. Ontario, Canada, has recently instituted its Passport to Prosperity initiative to encourage employers to hire high school students and provide them with workplace experience. The program encourages school boards to offer all interested high school students the opportunity to learn through hands-on training, a requirement of the new secondary school program. The overall goal is to help students adjust more effectively to current workplace demands and to make informed choices about postsecondary education and training. In addition, the San Diego Workforce Council has partnered with the biotech industry (and other industries) to create a program called Learn and Earn, whereby students can get paid internships in biotech companies.

6) Create Math and Science Charter or Magnet High Schools. K-12 education needs to give students the math and science skills they need to succeed in the New Economy. One way for states and regions to encourage students to go into science and engineering fields is to create charter high schools that specialize in math, science, and technology. In the last 15 years, math and science magnet high schools have been established in places like Alexandria, Va. (a suburb of Washington), but more need to be established, particularly ones focused on economically disadvantaged students. One model is High Tech High, which recently opened its doors to approximately 200 ninth and tenth grade students in a newly designed learning center near downtown San Diego.

7) Invest in Developing Curricula at Colleges and Universities in Science, Math, and Information Technology. Scientific and technical programs at colleges and universities are underfunded in many states. In particular, the technical and scientific equipment used to train and educate students is often several generations out of date. States need to ensure that these programs are well funded. For example, New Jersey's former governor, Christine Todd Whitman, proposed an Excellence in High Technology Workforce initiative to target \$15 million to help New Jersey's colleges and universities develop programs in technology excellence to help businesses have the high-quality workers they need. Competitive grants administered by the Commission on Higher Education will strengthen programs from entry-level certificates to advanced degrees. States and localities should also work with employers to encourage the use of idle labs and production equipment for training of outside, as well as inside, workers.

8) Establish State "SciTech Scholars" Programs. In response to the decline in science and engineering graduates, a number of states have established scholarship programs for students who major in science, math, or engineering. For example, Pennsylvania provides a three-year science scholarship for students who maintain a B average and undertake an internship with a Pennsylvania technology company. Maryland has adopted a similar program. Washington Gov. Gary Locke recently proposed a \$16.8 million initiative to target college and university enrollment in high-demand science and technology fields, with the goal of attracting 1,500 new students over the biennium.

9) Support WIA Training Vouchers.⁷ Much of the training funded through the prior Job Training Partnership Act (JTPA) programs was "contract" training; that is, JTPA operators contracted with a training provider for an entire course and then sent JTPA participants to it. The 1998 Federal Workforce Investment Act (WIA) gave states and localities the authority to provide individuals with greater flexibility and choice by giving them training vouchers or Individual Training Accounts (ITAs) that they can use at any approved training institution or vendor, including community colleges. States and localities need to take advantage of that authority and use vouchers to encourage adults to invest in their own education and training.

However, it is important to note that there is insufficient training money for WIA vouchers. As a result, many areas have not put any funds into training (this is also driven in some places by the "work first" philosophy, which holds that it's better to get people any kind of job first, rather than training them for a better job later). Also, many areas have created very few vouchers or have funded individual vouchers at such a low amount that individuals cannot get the quality or length of training that they need. States and the federal government should work to develop a WIA system of vouchers that is better funded, tightly linked to good information to support people in making good choices, and able to be supplemented with private or other sources of funds.

10) Reimburse Colleges for Noncredit Student Enrollments. States should put noncredit courses on a level playing field with credit courses. Currently, publicly funded community and technical colleges receive state funds for credit courses, but noncredit courses must be self-supporting through tuition.

Yet, increasingly students rely on noncredit courses to boost their skills (particularly taking courses over a period of years as they engage in lifelong learning), while companies rely on these same courses to upgrade the skills of their workers. But because they do not get reimbursed by the state, colleges have less incentive to develop good noncredit programs. For example, firms in central Indiana reported that the most important skill set they needed in workers was C++ programming (a computer program language). The state found that students could get this skill at only three universities, in degree programs with extensive, unnecessary prerequisites. However, students could get Fortran (an obsolete computer program language) in noncredit courses in many schools.

As long as there are adequate standards for the noncredit courses (length of course, connection to employer-based training, etc.), schools should be reimbursed for students taking these courses. For example, Texas has provided full reimbursement for noncredit courses that employers set up or that students take to get ready to go back to work. Colorado is taking steps to make it easier for employer-based programs to qualify. Georgia's Hope Scholarship allows people to take any course that issues a technical certificate recognized by the state.

11) Establish a Tax Credit for Company Investments in Remedial Education, Literacy Training, and English As a Second Language. Many companies seeking to upgrade the skills of their workforce are having to first make sizeable investments to simply rectify the skill deficits left uncorrected by the K-12 education system. Because too many workers did not learn basic math, reading, and language skills in school, companies are having to fix these deficiencies before they can train their workers in more advanced skills. Moreover, in most states there are long waiting lists for this kind of remedial education. As a result, it makes sense to provide incentives for companies to offer this kind of basic skills training. As a result, states and the federal government should establish a tax credit for company investments in this kind of training.⁸

12) Develop "Report Cards" on Training Providers.⁹ The workforce development system needs to be based on organizations that are held accountable. States should develop a comprehensive performance measurement and tracking system for all its education and workforce development programs by using unemployment insurance wage record data. In addition, through the state's one-stop employment and training portal (see below) users (employers and employees) should be able to rate online training providers in terms of service, price, and quality. Some states are moving in these directions. Florida has an Education and Training Placement Information Program that captures follow-up data on

employment, education, military enlistment, incarceration, and use of public assistance for graduates of every public (and many private) education, training, and job placement institution in the state. The data are available at schools, one-stop career centers, and state employment service and training offices.

13) Develop "Report Cards" on Colleges and Universities. One of the myths of American education is that, while our K-12 system is underperforming, our higher education system is world-class. While a small number of elite colleges and universities are the best in the world, grade inflation, increased faculty preoccupation with research and publishing, increased use of teaching assistants, and a lack of standards have produced a system where many of our nation's colleges and universities no longer turn out students that meet the needs of New Economy employers.

It is difficult for parents and students to judge the quality of the education they apply for. Likewise, it is difficult for employers to assess the quality of the college graduates they hire. Parents, students, and employers can rank colleges on how good the students are that enroll, but not on how much "value-added" the institution offers. In the absence of this consumer information, higher education is able to maintain the status quo. The National Center for Public Policy and Higher Education recently stated: *"All states lack information on the educational performance of college students that would permit systematic state or national comparisons. Their Incomplete grade highlights a gap in our ability as a nation to say something meaningful about what students learn in college."*¹⁰

At present there is no perfect measure of college outcomes. One method that states, working with the federal government, might attempt is to require four-year colleges or universities that receive public funds to publish the aggregate scores of students who take the GRE compared to those same students' SAT (or ACT) scores. While the GRE is not a perfect measure, its use would make it possible to ascertain, for example, that college X's students averaged in the 75th percentile of all students taking the SATs, but only the 53rd percentile of students taking the GRE -- suggesting that college X was being outperformed by other colleges.

14) Build a National, Real-Time Occupational/Employment Data System.¹¹ The Bureau of Labor Statistics in the Department of Labor is charged with keeping statistics and making projections on occupations and employment. Yet, in a fast-moving economy where occupational definitions are rapidly changing and new occupations are constantly being created, the current occupational coding system has not kept pace with the changing realities. The BLS efforts at predicting what occupations will be in demand in the future are even less relevant, particularly at the regional level. States and the federal government should work to develop a real-time occupational data system that relies on frequent surveys of a rotating panel of companies or other organizations and asks them to define occupations and report employment levels.

15) Use Technology to Automate Services and Improve Quality. Whether in the resource rooms of "one stops" or from computers in their own homes, most individuals seeking job, career, and training information will have to access it on their own. Yet most government online sites for people seeking information about finding a job or getting training are poorly designed, hard to navigate, and limited in scope. This is because online efforts have usually replicated the fragmented and programmatic nature of the off-line world and have not attempted to create one-stop portals. These learning and employment portals need to be comprehensive (with information on jobs; training and education, including report cards on providers; financial assistance; skills assessment and career counseling; self-paced computer-based learning; and the ability to apply online for benefits) and easy to navigate and find. Publicly supported training systems should also take advantage of other kinds of technologies (such as smart cards) to increase the efficiency of service delivery and improve quality. In addition, terminals offering much of the information job seekers and employers need should be located anywhere and everywhere -- libraries, schools, community-based organizations, public housing complexes, employment centers, unions halls, freestanding kiosks.

Public entities should make sure they are not duplicating or competing with private systems. For example, the Department of Labor's America's Jobs Bank and America's Talent Bank competes with job and resume posting systems, such as Monster Board, Careerbuilder.com, and Hot Jobs. Any public systems should be sure to link to private sites, such as blackboard.com, that provide access to training and education.

Instead, public entities should be funding the things that the private sector won't, or that cost too much for the average person to use. For example, the province of Ontario launched AlphaRoute, an online system providing over 160 hours of online literacy services (for both English and French speakers) via the Internet, to help learners in remote areas of Ontario progress from limited skills to the equivalent of grades eight and nine. Other applications that could be developed include online career aptitude testing,¹² skills assessment, career counseling, and basic skills and English as a second language acquisition. In some cases, these applications exist, but are proprietary and cost money. States and the federal government should consider funding the best-of-breed programs so that they are available free online.

16) Create "Learning Stores." In most places it's extremely difficult for the average citizen to locate publicly supported workforce development programs. Moreover, it's not clear that the move to one stop centers will make this significantly easier. Instead, government should consider creating and funding easy-to-find learning stores, located where people typically go (e.g., shopping malls). They should be contracted out and staffed by friendly professionals. Individuals should be able to enter a learning store and, through consultation with a learning specialist and/or self-service on a kiosk, get what they need, including finding out how to assess their skills; locating courses, degree programs, and

certificate programs in the occupations/skills they are interested in; and determining the financial assistance they qualify for. The center would maintain a real-time list of all educational offerings in the region (including distance learning online courses). These stores could also provide other, related services as well (e.g, a "start your own business" section providing information on permitting, microenterprise loans, and business management advice).

17) Develop Employer-Focused Education and Training Systems. Too often education and training programs are designed around the needs of traditional students and the interests of faculty and college administrators.¹³ Courses are for credit, offered on an academic calendar, taught during times of the day and days of the week when working individuals (or stay-at-home parents) are not free, and often don't teach skills that companies need. For example, in Massachusetts, only 25 adult basic education classes are held on Saturdays, in spite of the fact that students overwhelmingly report preferring Saturday classes.¹⁴ And employers are not sure what competencies students have after finishing school. Increasingly they want to know what new hires or existing workers "know and are able to do."

Some places have begun to change this. For example, Kellogg Community College in Battle Creek, Michigan, has a Regional Technology Center as part of the Fort Custer Industrial Park. It features "open entry/open exit" so workers can come and go according to their schedules. It offers various kinds of industrial certification programs in modularized form that carry college credit. All of which is to say that incumbent workers can get skills needed by their employers, get them certified, get college credit, and study when it suits their schedule regardless of shift or day of the week. This is the kind of seamless system that providers need to provide.

18) Develop True Customer Response Systems. To the extent that programs assess customer satisfaction, they do it through customer satisfaction surveys. But at best these provide limited feedback and assessment. Programs need feedback systems that first ask customers what's needed, then plan, and then go back to see if they got it right, implement again, and then go back and check on whether it's working and what else is needed. For example, Louisiana recently held a series of employer forums to ask them what their skill needs are and what their experiences with the state has been. On the basis of that, they are developing an action plan for change, which they will again ask industry to respond to.

19) Integrate Job Training With Adult Education. Historically, job training and adult basic education operate in different universes, governed by different agencies, with different goals and institutional structures. Yet, from the perspective of workers and employers, this makes no sense. A recent study by the nonprofit organization Mass Inc. found that, within Massachusetts, those with the lowest basic skills in reading and math were the least likely

to get training from the federally funded WIA programs.¹⁵ While many of these individuals might not have been ready for occupational training, they were not even directed to adult basic education programs. One of the reasons for this is that there is little linkage between the employment and training system and the adult education system. Massachusetts is by no means the exception. In fact, the federal government leads by example, with adult education programs the responsibility of the Department of Education and employment and training programs under the Department of Labor, and never the twain shall meet.

At minimum, states and the federal government should significantly increase the collaboration between these areas and agencies. But to truly build an effective system, states and the federal government should consider merging their employment and training and adult education programs into one organization.

Conclusion

In the New Economy, knowledge generation and acquisition need to be at the center of economic development efforts. Making this happen means taking action across a broad front to ensure that public employment and training programs produce the results needed.

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Endnotes

1. This paper is based on a presentation given to the National Governors' Association Center for Best Practices forum on Workforce Development, Dearborn, Mich., December 1, 2000.
2. The United States Census Bureau (http://www.census.gov/pub/epcd/ssel_tabs/view/tab9_99.htm).
3. Paul Osterman, "Revolutionizing Work," *Blueprint: Ideas for a New Century*, The New Economy 7 (summer 2000): p. 36. (<http://www.dlc.org/blueprint>).
4. Bob Davis and David Wessel, *Prosperity* (New York: Times Books, 1998), p. 8.
5. Paul Osterman, *Securing Prosperity* (Princeton, Princeton University Press, 1999).
6. Robert Atkinson, "New Skills for a New Economy" (Washington: Progressive Policy Institute, February 1998). (<http://www.ppionline.org>).
7. This section is drawn from Suzanne Teegarden and Barbara Baran, "The Promise of the Workforce Investment Act" (Washington: Progressive Policy Institute, April 2000). (<http://www.ppionline.org>).
8. Robert Atkinson, "Making the New Economy Grow: An Action Agenda" (Washington: Progressive Policy Institute, July 2000). (<http://www.ppionline.org>).
9. This section is drawn from Teegarden and Baran, "The Promise of the Workforce Investment Act."
10. <http://measuringup2000.highereducation.org/reporhome.htm>
11. I am indebted to Bob Jones, president of the National Alliance of Business, for this idea.
12. See <http://www4.ncsu.edu/unity/lockers/users/l/lkj/>.
13. A recent report from Texas A&M University states, "Academic administrators seldom systematically solicit industry evaluations of the types of degrees granted; the knowledge, skills, and abilities which graduates acquire; and the strengths and weaknesses of their graduates." Mary Zey, et al., "Changing Employment Demands and Requirements for College Graduates," Strategic Policies Research Group, The Texas A&M University System, January 1999.
14. John Comings, Andrew Sum, Johan Uvin, "New Skills for a New Economy: Adult Education's Key Role in Sustaining Economic Growth and Expanding Opportunity" (Boston: The Massachusetts Institute for a New Commonwealth, 2001), p. 86. (<http://www.massinc.org>).
15. *Ibid.*, p. 73.