Studies have shown that instead of investing in the education and training (E&T) of their employees, many U.S. firms are taking advantage of the surplus of college-educated workers and are not considering the future quality or availability of work-related E&T. Research has also established that, despite the fact that increasing numbers of skilled workers need advanced work-related E&T to retain high-paying jobs in technical fields, many colleges have curricula ill suited to the needs of the nontraditional students who constitute the vast majority of individuals seeking work-related E&T. Continuation of these trends could eventually result in shortages of skilled workers that could in turn threaten the U.S. economy and U.S. firms' competitiveness/success in global markets. Higher education can play a central role in preparing a skilled workforce and preventing future shortages of skilled workers by taking the following steps: (1) help firms recognize that investing in human capital will help their performance in global markets and that business must help education avoid diminished public support and government regulation and (2) preserve and improve the value of college degrees by focusing on skills standards, seeking out new markets, developing new products, and satisfying demands for technical skills and work-connected learning. (MN)
Challenge: To better understand the central role higher education has come to play in the preparation of a skilled workforce.

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<tr>
<th>Corporate Customers</th>
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A Matter of Degrees:
Workforce Changes and Higher Education

For U.S. firms and the workers they employ, there is no turning back: technology, international competition, and the changing demand for higher education have transformed the business practices and employment patterns Americans once took for granted. The demise of mass production and advent of customized manufacturing, the shift toward a service-based economy, the emergence of new technical crafts—these trends are reshaping the manpower strategies and work organization of nearly every American enterprise.

The most dramatic consequences have been the downsizing and, in a few cases, the dismantling of America's corporate giants. Following the 1990-92 recession, many large employers were persuaded, after more than a decade of delay, to reduce their workforces, closing plants and offices while simultaneously abandoning unprofitable lines of business. Sears, General Motors, IBM, and AT&T are only a few of the large manufacturing and service organizations that have sought a return to profitability by reducing the size of their enterprises.

When a firm operates with fewer employees, each employee counts for more. Streamlining clearly works best when the firm can count on a core of well-educated, well-trained, experienced employees. In the days of mass production, the nation's manufacturing industries offered high school graduates steady, well-paying jobs in exchange for competent, reliable performance. Today, the credential of choice most often is not a high school diploma but a college degree, signifying work readiness in terms of age and maturity as well as demonstrated problem-solving and comportment skills.

Focusing specifically on the relationship between business and higher education, the following discussion addresses three broad questions:

- How are current labor market trends affecting the value of a college degree?
- What are the responsibilities of the nation's colleges and universities as principal educational suppliers of American firms?
- What are the obligations of American firms as major "customers" of higher education?

Labor Market Trends

As the number of traditional, high-paying manufacturing jobs has declined, high-wage employment has shifted to the service sector, where good jobs often depend less on manual dexterity than on analytic skills. Such jobs increasingly are held by college graduates: in 1991, 5 million workers with high-paying service jobs were college graduates, as opposed to only 2.5 million workers a decade earlier. For an increasing number of firms, both large and small, a degree from a reputable college or university functions as the dominant screening device, a signal that a given job applicant possesses both the problem-solving abilities and the behavioral skills to get the job done.

In the short term, American employers have the luxury of a buyer's market: the current surplus of college graduates, further enlarged by the downsizing of major firms, allows employers to be highly selective in their hiring. Individual firms may take advantage of the excess supply of skilled labor to reduce costs in two ways. First, a firm may delay permanent hiring to contain the
cost of employee benefits, relying on part-time and temporary employees until the ideal candidate—college-educated with prior work experience and demonstrated competency in the required field of expertise—arrives on the scene, justifying the creation of a permanent position. Second, since experienced workers often require less training, a firm may cut back or eliminate its own employee training programs. In this way, training becomes a prerequisite for rather than a benefit of employment.

For American workers, the cumulative effects of these trends has made it tougher to find and keep high-paying jobs. In many cases, a college degree, while absolutely necessary, is no longer sufficient to ensure successful lifelong careers. To progress beyond entry-level jobs and compete for high-paying positions, particularly those in new technical fields, many Americans need continuing access to job-related skills training. As large firms continue to cut back on employee training, mature as well as first-time workers must scramble to find, and finance, the training they need to advance within one profession or switch to another.

From the employer’s perspective, contraction is a necessary part of growth; cutbacks in training, like other streamlining measures, are intended to improve the firm’s competitive performance in global markets, serving in the long run not only to increase profits, but also to create and preserve good jobs for American workers. This rationale for business modernization is now understood and endorsed by most major U.S. firms. Few, however, have seriously considered the labor market implications. In an increasingly robust economy, the demand for skilled labor also will grow; those employers who now select their employees from a generous pool of capable college graduates should be asking whether the nation’s institutions of higher education will continue to produce sufficient numbers of skilled workers to carry American business into the twenty-first century.

Educational Suppliers

Rising demand for college-educated workers will not necessarily lead to a commensurate rise in the value of a baccalaureate degree. Even as a college degree has become an increasingly necessary credential for winning good jobs, colleges and universities themselves have come under fire for costing too much, for spending money in pursuit of their own rather than the public’s interest, for supplying teachers who can’t teach, managers who can’t manage, and graduates who lack fundamental language and mathematical skills.

Meeting the educational needs of American business will also require greater sensitivity to changing labor markets and enrollment pools. There was a time when
colleges and universities drew almost exclusively on “rite-of-passage” students—high school graduates seeking full-time enrollment in academic programs leading to traditional baccalaureate degrees. Today, the presence of higher education’s “new majority”—older, often returning, students seeking to combine work and learning—is well recognized.

Often overlooked, however, are important differences among students in the “nontraditional” pool—as well as differences in the nature of the institutions that have come to serve them. For some, the goal is to acquire specific skills training and/or certification, in some cases with employer assistance. Many worker-students, however, pursue traditional college degrees as a means to improve their overall employment potential.

Sooner or later, all types of workers—non-college-bound youth, rite-of-passage graduates, degree-seeking adult learners, mature workers upgrading expertise—are likely to need some form of job-related skills training.

What the working learner too often discovers is that the rite-of-passage curriculum is ill-suited to their professional goals, life experiences, and job schedules. Based on a philosophy of “first things first,” the standard undergraduate course of study presumes that most learners are full-time students who can complete general requirements in two years or less. For the part-time and intermittent learner, however, getting these basics out of the way takes three or four years—too long for the working learner to take on faith that, in the end, there will be a tangible link between work and learning.

Working learners often require geographic mobility as well as flexible scheduling. Multi-campus public university systems are in a good position to serve the new majority through low-cost educational outlets that allow the ready transfer of credits from one branch to another. The inability of private institutions to offer standardized, transferable products puts them at a disadvantage: their prices to the consuming public are necessarily higher, while their geographic range is limited by single-campus traditions and lack of capital to invest in the technologies of distance learning.

Sooner or later, all types of workers—non-college-bound youth, rite-of-passage graduates, degree-seeking adult learners, mature workers upgrading expertise—are likely to need some form of job-related skills training. For workers in new technical crafts, including computer programmers, medical technicians, paralegals, and engineering technicians, training is especially problematic.

As major high-tech companies downsize, abandoning service and training as company hallmarks, a catch-as-catch can market of training courses and programs has arisen. For the most part, technician training is provided by low-cost vendors—community colleges, proprietary schools, and a few vocational education programs—offering certificates and credentials of uncertain value.
In their role as principal educational suppliers of American firms, the nation's colleges and universities are responsible for preserving the value of a college degree through rigorous educational standards and vigilant cost containment. They also have an obligation to take job-related skills training seriously, not as a marginal activity but as a fundamental mission, deserving substantial investment of time and talent as well as financial resources.

Corporate Customers

If the shift in higher education markets appears to be irreversible, the educational needs—and, hence, strategies—of American business are less clear. Many firms appear to be coasting, taking advantage of the current surplus of college-educated workers without considering the future quality and availability of work-related education and training. In the long run, continuous upgrading of employee skills is critical to the success of the nation's growing service economy. Those firms that recognize human capital as their principal asset—that begin now to invest in the creation of a skilled, adaptable, motivated labor force—will perform best in a global market that demands rapid development of new products and services.

For years, American firms have purchased training services from colleges and universities, as well as from commercial vendors. Yet higher education's share of the total training market has remained surprisingly low. This failure to develop effective business partnerships reflects long-standing communication problems as well as organizational barriers. Colleges and universities traditionally seek to provide broad-based knowledge, while corporate customers typically are looking for job-specific competencies and problem-solving skills. The private sector's insistence on well-defined products in convenient packages is foreign to the curricular traditions of most colleges, which focus more on educational process than measurable outcomes.

In light of these problems, is it worth the effort for U.S. firms to cultivate colleges and universities as major suppliers of education and training? Corporate leaders who find themselves posing this question should consider the alternatives. If American firms distance themselves from higher education reform—disregarding issues of quality, affordability, and skills training—the value of a college degree, like that of a high school diploma, could deteriorate, invalidating the very credential on which employers have come to depend.
A productive partnership between American business and higher education could preserve the foundations of learning while extending the reach of work-related education.

The resulting vacuum in work-related education would likely trigger two sets of consequences. First, federal and state authorities would step in, regulating not just the financial practices of colleges and universities, but also what and how they teach. Second, a commercial market of electronic suppliers, offering low-cost, competency-based alternatives to traditional classroom instruction, could spring up virtually overnight. If higher education fails to capitalize on the technology for interactive distance learning, one or more electronics/communications conglomerates could soon dominate the market for work-related skills training.

Neither development would likely work to the advantage of American firms. A regulatory backlash could entail the independence not just of higher education but also of the private sector, forcing individual firms to “play or pay” for mandated employee training. Electronic learning products also have a down side. Despite their promise of low-cost efficiency, such programs tend to stress narrow job-specific competencies at the expense of analytic problem-solving skills long valued by prospective employers.

In contrast to these alternatives, a productive partnership between American business and higher education could preserve the foundations of learning while extending the reach of work-related education. Rather than dealing with a chaotic market of electronic learning products and commercial vendors, many firms would prefer to work with a familiar system of educational institutions.

Some firms and some colleges already have established the necessary market relationships that cast schools as suppliers both of individual and specialized programs and firms as their customers. Many community colleges, for example, have drawn on their experience as customer-driven institutions to forge strong, mutually beneficial links to the business world. Other public colleges and universities could soon follow suit. Although it would be a difficult task at first, major employers and perhaps even groups of employers could take advantage of public subsidies to make bulk purchases of educational services for their employees—an educational version of health care’s managed competition. Even small private colleges could overcome their lack of geographic range and investment capital by tailoring programs to fit specific markets. One intriguing possibility is the creation of a geographically distributed network of institutions that band together to become a “private system” of cooperating educational outlets.

Conclusion

American firms are not in the business of education. Concerned, for now, primarily with downsizing their workforces and increasing their market share, most companies are unwilling to invest in the education and train-
Firms too often indulge in the assumption that significant change in work-related education would be prohibitively expensive, diverting valuable time and resources from the actual business of production.
Announcing EQW Policy Statements

The National Center on the Educational Quality of the Workforce is pleased to announce the creation of a new EQW publication: EQW Policy Statements, authored by the EQW National Advisory Board, which synthesize the Center's research findings and offer policy recommendations based on those findings. The first essay, "Making Good Jobs for Young People a National Priority," will be released shortly and tackles the problem of meaningful and sustained youth employment. The next EQW Policy Statement, tentatively titled "Private Matters, Public Policy," will explore the interaction of employer practices and skill demands in the economy. Other essays will cover the growth of the technical workforce as well as the uncertain measurement of training and its role as a gauge to measure the nation's investment in human capital.

The National Center on the Educational Quality of the Workforce

EQW is a partnership between one of this nation's premier business schools and one of its leading graduate schools of education. Established by the University of Pennsylvania's Wharton School and Graduate School of Education under a cooperative agreement with the U.S. Department of Education, EQW's program of research and policy analysis takes as its principal challenge the renewal of American competitiveness through leveraged investments in the quality of the nation's workforce.

The EQW research agenda focuses on four broad questions:

1. What do employers need to know to better use the skills their workers bring with them and acquire in the workplace?
2. How can schools and other providers become more effective suppliers of skilled and disciplined workers?
3. How can workers develop more complete skills portfolios that combine the competencies and disciplines a productive economy requires?
4. What is the best role for public policy in the development of a work-related education and training market that efficiently links consuming firms, supplying schools, and educated workers?

The Research Connection

Each EQW ISSUE grows out of the Center's linking of research and practice. The process involves the identification of a key issue or problem and the investigation, through research, of its solution.

The research for this issue included the following:


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Illustrations by Michael Fahy

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