

The Reindustrialization of Vocational Education

by

Amitai Etzioni

"Vocational education is not a priority," lamented Richard Arnold, division manager of the Community Educational Relations Department of AT&T. "The Business Round Table decided not to take it on," confided one of my colleagues. When I ran into David Goslin, the top social science staffer of the National Academy of Sciences on the way to a "VocEd" meeting, he wanted to know, "What are *you* doing here?" When Congressman Carl D. Perkins launched hearings on possible renewal of the massive five-year program of federal aid to vocational education (which was due to run out September 30, 1982), the opposing views did not make the network news, indeed were barely reported at all.

Vocational education may not be a prestigious or "in" subject, but it requires attention in this era of national turnabout. Call it renewal, revitalization, or—I naturally prefer my own term—reindustrialization, the quality and preparation of human capital is a vital part of the renewed attention to economic growth. Few if any would contest the elementary truth that even if government intervention in the marketplace is slashed, its guzzling of resources is effectively curbed, and R&D and the formation of capital are encouraged, labor will still remain an essential factor in any equation defining the elements of productivity and economic growth. Indeed, a pivotal element of the first industrialization of America, roughly between the 1820s and the 1920s, was the mass preparation of immigrants and farmers for work in factories, including acculturation, general education—and vocational education.

The Condition of Human Capital

Many corporate executives find vocational education—and, more widely, preparation for jobs—a subject best delegated to someone in personnel, a topic not nearly as worthy as return on capital, new technologies, or even labor relations. The same executives are nevertheless keenly aware of the bottom line of the condition of human capital, the frequent absence of "employable skills." There is an acute shortage of persons with some specific skills (computer programmers, toolmakers, engineers, secretar-

Amitai Etzioni is university professor at The George Washington University, Washington, D.C., and is also director of the Center for Policy Research, New York City and Washington, D.C. This article is based on his book An Immodest Agenda: Rebuilding America Before the Twenty-First Century (McGraw-Hill, 1982).

ies). Moreover, in the groups of workers, blue collar and white collar, who are available in abundance, many are reported to be unable to read a blueprint, query a work processor or computer, compose a coherent report, or do simple calculations with assurance. "When I told her to use the yellow pages," a Washington-based executive says about his new secretary, "she said she couldn't." It turned out that she did not have a firm grasp of the alphabet, nor was she trained in the use of a simple index, two "skills" without which the yellow pages become quite unwieldy. The U.S. Army, one of the greatest users of raw human capital, found out in a recent tank-battle simulation that the messengers and radio operators were unable to "decipher" rather simple, but urgent messages.

Indeed, complaints about the lack of skills of the youth who graduate (or drop out) from American high schools, whether regular or vocational programs, have reached the level of a common cliché. It is less widely recognized that in fact the poor skills level of many of America's youth is an important reason for "youth dispreference" in hiring. In a study conducted by a White House task force in preparation for the administration's 1980 youth employment initiatives, employers said they could not find enough young people who have the basic skills of reading, writing, and arithmetic to perform white-collar jobs; they sometimes have to interview 12 to 15 young people to find one who can qualify for even an entry-level job. The literacy gap among applicants was a serious problem; major employers reported that over 60% of young applicants fail entry-level job exams. It is estimated that almost 23% of those who begin school will never receive a high-school diploma; even among those who do, many lack elementary preparation for work. Complaints about the decline of work-ethic are similarly common.

Social scientists, whose job it is to be skeptical about all widely-held assumptions, are less sure. Economist Edward F. Denison, a leading authority on productivity, is "skeptical that a sudden drop in willingness to work is responsible for the recent retardation of productivity." His skepticism, he explains, is

largely attributable to having heard similar generalizations all my life and having read them in the works of observers who wrote long before my birth. It was well before 1967 that I wrote, "Like the supposed decline in the spirit of enterprise, there seems always to be a popular belief that people are less willing to put in a hard day's work than they used to be, but this is scarcely evidence."

Another leading authority in the field, the National Institute of Education's Henry David, in *A Policy for Skilled Manpower*, published 27 years ago, wrote "It was contended that workers are no longer governed by internal standards of work; that they display less of the old-time willingness to please the boss. . . ." Among the factors cited at the time were schools that no longer stress discipline, and decline of supervision at home because many mothers are employed.

The truth may well lie somewhere between employers' complaints and social scientists' doubts. Assuredly, matrons in ancient Rome complained that "you can't get good help anymore," but there is some evidence that the quality of America's human capital has indeed deteriorated over the

last decades. A recent study by the National Assessment of Educational Progress found that the average quality of the writing of 17 year-olds is somewhat lower than it was in 1969, while the descriptive writing of 13-year-olds showed a "significant decline." The study concluded, "It appears that a considerable proportion of young people— from 10 percent to 25 percent— do not understand the nature and conventions of written language." Similar data have previously been published on declines in ability to compute and most other things.

And, despite his doubt about the decline in willingness to work, Denison found that great increases in the proportions of inexperienced workers— young people and adult women—among the employed caused a reduction of productivity, albeit not a major one. While the entry of so many young people and women into the labor force did increase total labor input and output, it added "less than an employment expansion of similar size would have done if it had been distributed like existing employment."

The data indicating decline of the work ethic are much weaker and less clear, but still point toward less motivation to work hard, and more demand for using work for self-development rather than a day's pay. A recent survey conducted by Louis Harris for Sentry Insurance found that among labor leaders, business leaders, and the public, two-thirds to three-fourths endorse the views that people take less pride in their work than a few years ago; that their work motivation is not as strong as it used to be; and that people are not working as hard as they used to. Daniel Yankelovich reports in his recent book *New Rules* that the quest for self-fulfillment has drastically reduced the proportion of Americans who believe in "hard" work.

In short, it seems that employers may be bitching as usual, but also may have more to bitch about.

"Wait a moment," I can practically hear the reader exclaiming. "Willingness to work and employable skills are not the product of vocational education alone." Quite right. They are a kind of an educational bottom line that reflects all that preceded employment, from the condition of the home on. Was learning—and work—appreciated in the family? Was the primary school adequate? And so on. Vocational education builds on all this, and if the pillars are shaky the roof cannot be stable. Vocational education cannot make up for years of underpreparation for the world of work, of jobs. The more general term "job education" seems preferable when one wishes to include all work-relevant educational "inputs," leaving "vocational education" to refer to educational preparation for a specific vocation or for skills applicable to several categories of jobs. In these terms, job education may be more at fault than vocational education, at least the place where matters first go awry. But call it any name, preparation for work seems to be deteriorating.

Minorities, Women, and the Business Community

Preparation for work is gaining renewed attention as the United States undergoes a major turnabout in its national priorities. After three decades of pumping up public and private consumption, social priorities, and

concern with "inner" growth and the environment, the national focus is shifting to rebuilding economic vitality and growth.

As part of this turnabout, emphasis on minimum competence is replacing social (or automatic) promotion in schools, and emphasis on standards and structure is returning to colleges. While this shift in emphasis grows out of a general concern about falling skills, both its advocates and its detractors often use "minimum competence" and "standards" as code words for positions specifically concerning minorities. Social promotion in schools (and open admission in colleges) came to be favored, after compensatory education largely failed, to help minorities catch up with educational requirements. Many kids, especially in minority groups, were three to four years behind in math and English; instead of being held back to repeat classes endlessly, and suffer stigma on top of deficient skills, these young people were promoted—and graduated—automatically. Now, the call that schools demand at least some demonstrated competence is often perceived as aimed first and foremost at minorities.

Moreover, for long, too long, the media have tended to depict unemployment as first of all a problem of inner city, minority, especially black youth. Major federal programs have been evolved to try to increase the employability of these young people. Indeed, preparing minorities for work is one of the two top priorities of the federal vocational education program. The program's other social justice target is women. States receive funds to hire "sex equity coordinators," whose tasks include reviewing all vocational programs in a state for sex bias and helping local education officials to improve vocational education opportunities for women.

Indeed, the whole federal vocational education program smacks of the sixties. It began in 1963 with the passage of the Vocational Education Act, which significantly expanded federal aid to vocational education and established such funding as "permanent." In 1968 and again in 1976, Congress amended this act to inject social considerations into vocational education. The amendments provided that portions of the money appropriated to vocational education programs were to be earmarked for special "target" groups, especially women, minorities, and the handicapped.

Through these amendments, the federal government has been trying to spur the states to direct vocational education toward federal priorities rather than their own. It provides the states with only a fraction of the money that is spent on classroom vocational education, about 9% of roughly \$6 billion spent annually on such training; the rest is provided by the states and local boards of education. (Of course, training on the job is provided mainly by the industry as well as a sizable growing number of schools run by corporations, especially big ones such as AT&T and GM.) Nevertheless, the federal government has been trying to be the tail that wags the dog. Francis Tuttle, state director of vocational and technical education in Oklahoma, sums it up: "Under existing federal laws and guidelines, the federal government furnishes less than 10 percent of the money but is attempting to drive 100 percent of the programs. I don't think any of the states think this is appropriate." Most states, in turn, have tried their best to take the federal dollars and follow their own views as to what is

to be done. Tuttle notes, "What we have had to do sometimes is work around the federal rules in order to accomplish what we see as our priorities."

The focus of vocational education on "special targets," the hardcore unemployed, equity, and *social* change, has led to a wholesale disregard of industrial and business needs. Young people have often been trained for jobs that did not exist and have ended up, in droves, working for local governments, not in the private sector. In its 1978 report on employment and inflation, the Joint Economic Committee concluded:

The problem of teenage unemployment is not the inability to hold a job, but to get one in the first place The central focus of eliminating [this problem] must be to provide better mechanisms to match job seekers with jobs. Schools, businesses, and unions should expand the scope of the activities that link classroom activity to work.

The Committee also noted, "Poor or nonexistent counseling often results in coursework choices which are irrelevant to future jobs."

Employers and their representatives second this complaint. Robert L. Craig, communications director of the American Society for Training and Development, an organization of private-sector job trainers, comments:

Vocational education wastes a lot of money because the education people don't get together with the people from the world of work. There's a big gap between education and work, and the employer has to fill it. . . .

Craig Musick, training director of the Graniteville Company in South Carolina, notes the discrepancy between education and industry in his own state:

The technical colleges in South Carolina are trying to develop technicians (2 years) and skilled craftsmen (1 year) for business and industry. . . . However, corporations have been slow to accept the technician concept because they do not have such a slot in their salary administration plan and corporate structure. . . . Both units (college and industry) are training people but not working together.

In addition, labor representatives have protested the lack of contact between educators and unions. Rod DuChemin, assistant director of human resources development for the AFL-CIO, notes that

the split between the thought processes of the vocational education people and the business community is very wide. The vocational education people never really spend any time trying to learn what [union] apprenticeship programs are all about.

Widening the gap between vocational education and the business world is provision of vocational education mainly through public schools, the majority of which are comprehensive high schools and community colleges that offer both vocational and academic programs of study. There are nearly 5,600 such institutions, compared to 700 vocational high schools, technical institutes, and other specialized schools that offer instruction primarily in technical education, and 1,900 area vocational schools and centers offering technical education on a part-time basis. Most compre-

hensive high schools tend to treat vocational education as a third cousin at best, while they favor liberal arts. Moreover, subjects that are not specifically vocational are increasingly taught in a way that makes them more academic—relevant to college but not jobs—as witnessed by recent changes in mathematics, economics, and natural sciences courses.

A push in the same direction comes from the structure of the advisory vocational education boards states must set up if they are to receive federal funds. The federal government spelled out in fine detail 20 categories of people that must be represented on these boards. The advisory boards must include members concerned with the education of women, the handicapped, ex-cons, and people whose knowledge of English is limited; a VocEd student; and so on; but few are required to represent or understand the needs of the client of vocational education, the business community.

Beyond this general, almost incomprehensible inattention to the client, the preoccupation with social priorities and liberal arts distracts attention from two other obstacles to rebuilding human capital for reindustrialization: inappropriate psychic preparation and the mismatch between jobs and the labor force.

Skills or Self-Discipline?

Inadequate preparation of the labor (typical, by the way, of underdeveloped countries, which the United States is slowly coming to resemble) is *not* limited to some minorities, women, or inner cities. Large numbers of white males are also graduating from high school (or dropping out) unable to do elementary computation, and functionally illiterate, unable to follow a training manual, even one simplified to comic-book level. Moreover, to the extent that the widely-used term “lack of employable skills” focuses attention on cognitive deficiencies (inability to read, write, and compute), it is, I believe, deeply misdirected.

As I see it, the quality in which large segments of the labor force are particularly deficient is self-discipline, the basis of the ability to work with authority figures, with co-workers, with rules, and to do routine tasks. Indeed, this deficient psychic preparation seems to me to be a main cause of both deficient cognitive preparation and unemployability. Intelligence is rarely the issue; even a person of relatively low IQ can memorize the alphabet *if* he or she is able to mobilize self for this elementary level of concentration and effort—in other words, has self-discipline.

The intellectual demands of using an index system, reading a blueprint, or querying a computer are quite low, but these tasks do require an attention span, a level of concentration, and a systematic approach that exceeds that of impulse-ridden, unfettered minds. Behind most complaints about lack of skills (quite valid in themselves in that the person does not command the skills) is the lack of adequate psychic preparation. Thus, the inability to compose a simple memo, indeed a paragraph, is not so much intellectual as psychic—the inability to adhere to simple rules—a sentence must have a subject and a verb and end with a period, and so on. (I refer here not to effective essay writing, but to straight composition.) Similarly, simple math requires first and foremost a level of self-discipline to mem-

orize some basics (e.g., multiplication tables) and to adhere to a few rules. As I see it, the shortage of secretaries reflects a shortage of people willing to deal with routines (such as filing), to memorize (as in stenography), and to submit to authority. The key attribute of a good toolmaker is precision; precision is not a matter of high IQ, but of considerable self-discipline.

Indeed, give me a self-disciplined person, motivated to work, able to deal with others, with authority, and with rules, and having reasonable intelligence, and I will teach that person all the "employable skills" in short order. And give me a person lacking in these essential psychic traits, and I will find that person very difficult to teach—and to employ.

Why the deficient psychic preparation? In an America in which most, if not all, institutions have eroded, each institution tends to load part of what it should do in a well-functioning societal division of labor onto the next one, creating multi-institutional overload. The result is an institutional domino theory: as one institution underperforms, it leans on the next and strains it.

Laying the psychic foundation of self-discipline is first the task of the family; the formative years are crucial, and parents (and siblings) provide the first and most important "role models." True, even in good old America, not all families did their basic educational thing. But recently, with both parents often working outside the home, with "parents" often rotating (through divorces, a sequence of boyfriends or girlfriends, remarriages, stepparents, grandparents temporarily playing parental roles, etc.), and with a widespread notion that normless permissiveness is the childrearing practice to follow, many kids reach the educational institutions woefully underprepared, from a psychological viewpoint.

Schools are supposed to be the bridge from the family to the world of work—the first experience of dealing with rules, authority, time-specific "work" units, structured achievements and rewards—but in many of the nation's educational institutions the experience is quite different. These schools are overloaded with excessive and conflicting demands; suffer from a breakdown of inner discipline and structure; and are equipped with a boundless permissive psychological philosophy and burned-out staff. Particularly among schools in the inner cities, the breakdown of discipline has turned many institutions from educational establishments to inefficient warehouses, where the entrance of young people into the labor force is delayed while they indulge themselves, act out, and otherwise hinder those who wish to teach or learn. In these schools, protecting teachers from rape and assault, and the building from vandalism, is often itself a consuming and inadequately performed task. Teaching does occur, but the sum of the educational experiences generated in these schools is a better preparation for a world of street gangs, drug-pushing, numbers-running, or sporadic work laced with drugs and alcohol than for "a day's work for a day's pay."

Even where there are but few disadvantaged students, as in the many suburban public schools, the quality of psychic preparation varies a great deal. In many, the psychic message is based on a version of developmental

psychology according to which the teacher focuses on the person, not on his or her ability to function within a team or community. The result is well depicted in *The Class of '65*, a book about the graduates of an upper-middle-class school in Pacific Palisades, California. The students, typically the products of parental neglect or boundless permissiveness, had been faced by a school that set no clear standards, promoted no positive values, and "understood" the need to act out. Ten years later, only two of the graduates seem able to function in an adult work world. Others have committed suicide or had nervous breakdowns, are religious freaks or in a Turkish jail for drug smuggling, and so on. Some will eventually straighten out, but no thanks to their families or schools.

Not all American schools are like that certainly; but maybe half of the nation's kids pass through such schools. Not all of those who appear at work's gate are underprepared psychically; about half of the youth is a reasonable estimate.

When many families and schools are not doing their psychic preparation, their job-education, the task falls on the high school's vocational education programs, junior or community colleges (often openly perceived as remedial institutions for what the high schools neglected), or special programs, such as vocational schools. Many of these focus on cognitive elements (teaching remedial English or applied math). Other vocational programs do succeed in making up, to some extent, for previous deficiencies because they select youth in a way that screens out the psychically underprepared; or because they keep the kids day and night (the various "academies") and so can penetrate deeper into their pupils; or because training is closely tied to available, sought-after jobs at the end of the schooling—a powerful incentive.

Often, though, the load is passed to the next institution in sequence, the workplace. Large corporations end up spending hundreds of millions of dollars not on vocational training, or fine-honing skills to their needs, but on elementary job education and on attempts to cope with the consequences of deficient psychic preparation. Smaller corporations face even greater difficulties; unable to set aside the resources for schooling, they commonly have to make do with what they can hire: raw or underprocessed human capital.

Mismatch

Not all the difficulties arise from deficient psychic and cognitive preparation of workers; the world for which workers are being prepared has also changed. Henry David, who has led a major study of vocational education for the last five years, gives a telling example: twenty-five years ago a cabbie could be illiterate; today he must be able to write, because he is required to keep a log. Generally speaking, while the distribution of innate talent within the labor force may well not have changed, job requirements have escalated, with a decline in blue-collar and an increase in professional and semi-professional jobs. The computer revolution, the so-called onset of the post-industrial society, is but part of all this. No wonder less-skilled workers are in surplus and skilled ones in great demand.

Reindustrialization of Human Capital: What Is to Be Done?

All this suggests that there has been a wide decline of "employable skills," not one limited to minorities; that it is due first of all to institutional erosion and lack of self-discipline, not cognitive deficiencies; and that the federally imposed priorities of the sixties helped separate Vocational Education from the world of work; and that changes in job specifications have added to the difficulties.

If the preceding analysis is roughly correct, not too much is to be expected from attempts to straighten out the last domino of a teetering series. To ask vocational education in public institutions to provide "employable" workers is to ask its often unappreciated staff, thrust aside by general educators and often ignored by business, to correct for underpreparation by the family and the schools in both personality and cognitive areas, as well as to make up for what God and nature have not provided, an *expanding* pool of innate talent to suit raising job demands. Sure, some benefits can be squeezed out by using up-to-date instead of obsolete equipment (e.g., electric instead of manual typewriters). And a remedial course in English will somewhat improve the reading and memo writing of some. And if it is possible to forecast with reasonable accuracy where the jobs will be, and train people for them rather than for jobs that are vanishing, motivation to study will be improved. But these measures won't do the whole job.

Greater benefits might be generated by basic organizational changes. First, remove federal direction and let states and localities run vocational education. Second, increase the representation of business in the vocational education state advisory board and reduce the role of general education, which tends to foster an anti-vocational educational orientation. Third, increase the contact between vocational education representatives and the business community by forming local business *visiting committees*. Harvard has committees of outsiders who come to visit regularly with its departments, review achievements, and advise on directions to be followed. Vocational education programs would gain in relevance, reality, clout, and status if local employers would be invited to form committees to regularly advise these programs. Employers, increasingly concerned, might volunteer—especially if they felt their advice would be heeded.

To get at the two core issues, however, the growing labor-job mismatch and psychic underpreparation, quite different approaches are necessary. For the mismatch, one must recognize that as a rule it is easier to restructure the job than change the person. Thus, in the new anti-tank Cobra helicopter, the U.S. Army found that if the guiding mechanism breaks down, it is more efficient to unplug the "black box" and plug in a spare one than to call for, or train, repair personnel. Auto repair shops will benefit once computers start doing much of the diagnostic work, since fewer and fewer mechanics have the needed "insights." New typewriters, linked to processors, are equipped with a memory of the spelling of 50,000 words; if one is misspelled, the screen flashes. Using these may turn out to be more efficient than teaching anyone to spell all these words. Even more

than before, we need to look at the job-worker match as a two-sided dynamic, without limiting our efforts to suit one to the other, not to make room for self-actualization but to be more cost-effective.

As to psychic preparation, "remedial" work is best achieved through surrounding the person with a constructive total environment—not in specialized classes, in which what is gained in class is lost in other environments. Hence, for those who come to work underprepared, the best hope lies in on-the-job training, not in additional schooling, though in many instances some additional schooling is needed before on-the-job training is practical, or must accompany it.

In the long run, the pass-the-overload system will need to be reversed. Rather than stacking more and more remedial institutions on top of one another, families and schools will have to do more of their elementary duty: to prepare persons able to function in an adult work world. This is not something that employers can command, but in the renewing America—in which the public has come to favor a tax cut for business over one for itself—the concern with our national and economic future may be carried over to a greater attention to the human capital, especially in the psychic formation of the next generation of Americans. It is as necessary as fighting inflation and securing investment in capital if economic growth and social stability are to be provided for the future.