

SPECIAL REPORT

TRAINING AND WORKFORCE PREPAREDNESS

Introduction

Harry C. Katz

Does the American economy face a massive shortage of qualified workers? Are the graduates of our nation's public schools poorly educated and lagging far behind their counterparts in our economic competitors? Have government, companies, and labor unions failed to view training as an investment and failed to work together to remedy the problems enumerated above? Pick up a newspaper almost any morning and you are likely to see one or more of these questions discussed on the front page.

The articles in this issue of *ILR Report* examine training and the preparedness of the workforce from a variety of perspectives. In the tradition of the ILR School, this issue contains reports from the corporate, labor, and academic communities.

As Barry Roach reports, corporations are reassessing the adequacy of training received by their workforces as these companies struggle to respond to intensified international competition. Welch Allyn, like many companies, concluded that training had to be greatly expanded and broadened in order to improve the quality of its products and to spur innovation. Roach describes how at Welch Allyn this new focus on training emerged in the context of efforts to instill continuous improvement and deepen the participation of employees in business matters. Many types of training are expanding at Welch Allyn including basic math and reading skills, problem solving and communication skills, and statistical quality control techniques.

There is no single delivery system for this training. Some training is provided inside the company. Roach, for example, reminds us of the value of managers' direct involvement in

supervisory training both to the manager and the managed. Other courses seem best provided on the outside through community colleges or other educational institutions. Here, coordination is needed between public providers and the corporate community so as to guarantee the practical relevance of course preparation.

The provision of training for blue-collar workers that contains theoretical content and practical relevance is a major need, according to Dan Marschall of the AFL-CIO. Why is there such a pressing need for both theoretical knowledge and on-the-job experience? It appears that new technologies, particularly those involving micro-electronics, work best when in the hands of a workforce that is broadly trained. We are in an age of "smart machines" and need smart workers. Both Roach and Marschall suggest that some of the fault lies with past corporate practices that viewed training as an expendable and easily postponable expense, particularly when times got tough.

Marschall reminds us that we possess a network of apprenticeship programs that are well suited to the identification of skill needs and the creation of training programs that link practical work experience and classroom instruction. One way, therefore, to meet some of our needs for more skilled workers is to build upon the apprenticeship system. Formal apprenticeship programs are geared toward the training of skilled (or trades) workers. We could expand the number of workers enrolled in apprenticeships to meet current and even greater projected shortages of skilled electricians, machinists, and other skilled trades.

Yet, given the spread of smart machines



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and the need for continuous improvement, according to Marschall, we need to find ways to provide apprenticeship-like training to production workers and others who do not normally qualify for or fit within our existing apprenticeship structure. Thus, existing apprenticeship programs can serve as a useful model, particularly in the way they involve labor, management, and public educators in their governance.

Marschall also points out that to carry through on the provision of both theoretical and on-the-job skills is difficult, even within existing apprenticeship programs. Part of the problem arises from the fact that federal policy has for too long viewed training as part of a social policy geared to improving the lot of the disadvantaged and has ignored the needs of the already employed. But the problem seems to be more than just resources and commitment. It also appears that it is not easy to provide a link between those two very different kinds of knowledge. Yet, as Marschall's example of the repair of Boeing's sophisticated wire machines highlights, it is the use of both theory and hands-on experience that is the key to continuous improvement.

How will our country produce all the highly skilled workers that are needed because of the demands of international competition and the requirements of smart technologies? Professor Vernon Briggs argues that immigration policy could be used for such purposes.

Briggs claims that the nation's labor force problem is not that we will lack a sufficient number of workers. Nor does he think we will be short of unskilled employees. Rather, consistent with the warnings of Roach and Marschall, Briggs sees the major labor market problem as being a shortage of highly qualified workers. He reports that immigration provides 30 to 40 percent of the annual growth in the U.S. workforce. Yet, immigration policy is currently guided by family reunification and short-term political interests. The problem with this policy, according to Briggs, is that immigration is not synchronized with the nation's labor market needs. Briggs recommends that we use immigration policy to admit highly qualified individuals that fill the real gaps that exist in the workforce. He warns that the last thing the country needs is more poorly educated immigrants who lack English proficiency and congregate in the nation's urban areas.

Briggs argues that our current immigration

policy not only fails to address our economic needs, it also works against the country's social goals by allowing the country to ignore its underutilized human resources, namely, the large number of urban poor and the female workforce. So to Briggs, if we fail to use economically motivated admission criteria for immigration, the poverty problem will grow along with the skills gap.

Professor John Bishop identifies the shortcomings in the U.S. public education system. The good news for the ILR school is all the press coverage Bishop has been receiving for his research. The bad news is the message Bishop's research conveys. Bishop substantiates the gloomy story being told in the press. He summarizes the evidence showing that American students lag far behind not only their Asian counterparts in their math and science training but also behind students in Western Europe.

Why are our students so poorly prepared? A key problem appears to be relatively little science and math preparation received by those high school graduates who do not go on to college. Bishop argues that a big weakness arises from the fact that American employers do not use grades and other indicators of high school performance (and cannot easily, even if they try) in deciding whether to hire a job applicant. As a result, according to Bishop, students have little incentive to study hard.

Bishop also argues that there are a number of flaws in the teaching methods and reward systems in schools. For one thing, schools focus too much on high achievers and those going on to selective colleges. It may be a good for the top 10 percent to proudly report that they made the honor roll, but what about the other 90 percent? Bishop suggests that for those that are far from the top 10 percent, the current reward system becomes unrealistic and produces more resentment than good study habits.

Bishop also sees serious shortcomings in the use of aptitude testing. Again, incentives are awry. Because of aptitude testing, students have less incentive to focus on school work, and the reporting of test results (and other rewards) are structured on a relative basis. This leads to cutthroat competition inside the classroom and harmful side effects, such as the social isolation of high achievers ("nerds").

It is striking how much agreement now exists within labor, management, and academic communities with the view that a continuation of past practices in the training

arena will not meet the nation's needs. There is also agreement about some of the attributes of an appropriate training policy. All the contributors to this issue, for example, agree that the nation's chief problem is a shortage of highly skilled workers. All also argue that training should mix theoretical and practical knowledge. All also push for the involvement of labor, management, and government policymakers in the development of training programs.

Yet, there is disagreement in the country regarding how best to proceed. Briggs, for example, recommends using economic needs to guide immigration admissions. But do we then ignore the pleas of resident immigrants regarding the plight of their relatives? What

do we do with political refugees when they appear at our nation's doorstep?

Bishop recommends the use of high school grades in job selection. But is this consistent with pressures from our courts requiring the use of only those job selection criteria that can be shown to correspond with subsequent job performance? Both of these questions raise the dilemma of how to insure that discrimination does not appear in our rush to generate a highly skilled workforce.

These and other issues confront the nation as we struggle with providing an adequate preparation for our workforce of the future. The answers are not clear. What is clear is that training and workforce preparedness will be on the nation's policy agenda and the front pages of the country's newspapers for a long time.

