Employer-Centered Training for International Competitiveness: Lessons from State Programs

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Abstract

There has been a surge of new interest in federal training policy. This momentum has been fueled by concerns with productivity and competitiveness, whereas past federal policy has been more focused upon distributional issues. A wide range of new proposals have been put forth, and high on the list are initiatives to work directly with firms. As making employers the clients of training programs is a relatively new idea, there is very little past federal experience to draw upon. However, in recent years states have experimented with similar efforts, and these experiments provide an underused data source for assessing the traps and opportunities inherent in any national program. This paper reports the results of case studies in four states, two of which based employer-centered training in new state agencies and two of which housed the programs in community colleges. We identify issues of concern that arise in employer-based training programs and also suggest some possible solutions.

INTRODUCTION

There has been an upsurge of interest in constructing a national training policy, an interest largely due to concerns about America’s international competitiveness. A series of national commissions have recommended initiatives in education, school-to-work transition, and adult training. Recent publications by organizations such as the National Governors’ Association and the National Commission on Employment Policy provide additional momentum. A major legislative initiative that has recently been introduced, the High Skills Competitive Workforce Act of 1991 (S1790), embodies many of these ideas.

1 For example, The Commission on the Skills of the American Workforce, the Secretary’s Commission on Achieving Necessary Skills, and the Commission on Work-Based Learning.


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There is an emerging consensus that American employment and training policy lags behind the efforts of many of our international rivals, and this consensus offers an opportunity to initiate significant policy changes. The trick will be to capitalize on this opening. This, after all, is not the first era of enthusiasm about these issues. In the late 1950s and early 1960s concerns about unemployment and automation led to a series of initiatives, including the Manpower Development Training Act. These efforts, however, soon evolved into the fragmented and often income-targeted programs that continue to characterize the federal system.

Current reform efforts touch upon a wide range of concerns. For example, in the area of school-to-work transition the federal government and foundations are experimenting with efforts to implement a modified German-style youth apprenticeship system in this country. The Carl Perkins Vocational Education Act has set in motion improvements in traditional vocational education programs. An important theme of school reform has been to increase the attainments of American youth relative to those in other countries. Additionally the Bush Administration proposed a number of reforms in the Job Training Partnership Act, aimed at improving quality (although not intended to shift JTPA’s goals toward competitiveness themes) and the Clinton Administration is seeking to improve JTPA via “one-stop shopping.”

This article focuses on only one aspect of the current discussion: the effort to improve the skills of adult workers by creating employer-centered public training policies. The problem facing advocates and designers of proposals along these lines is that there is little federal experience to draw upon. To help make up for this deficiency, we examine several small-scale state programs whose characteristics are similar to those proposed for national policy. We use these programs to draw some cautionary lessons for national policy and to suggest some strategies for avoiding the pitfalls we identify.

New National Policy Initiatives

Expanding the training available to adults is seen by advocates as central to any efforts to improve productivity. Proponents make a case that links training to work organization and productivity. The argument is that American firms provide less training to their workers than do comparable firms in other countries. As a consequence of this undertraining American firms have greater difficulty adopting particular techniques (e.g., statistical quality con-

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1 See Kochan and Osterman [1991]. A complication confronting the current conventional wisdom is that the Japanese do not have a strong public employment and training system, although they do have very intensive training within firms.

4 In fact, the federal government engages in a wider variety of training-related activities than the foregoing characterization implies. For example, the Department of Labor’s Bureau of Apprenticeship and Training spends about $16 million a year certifying apprenticeship programs, the Carl Perkins Vocational Education Act appropriates approximately $1 billion a year for support of state vocational education programs, and the Department of Labor supports non-income-targeted dislocated worker training. We will discuss how the programs we focus on in this paper might be related to these other efforts. However, when all is said and done, the federal employment and training system is substantially income-targeted.

5 The U.S. Department of Labor’s Office of Work-Based Learning has established a number of demonstration programs with this aim, and the Sloan Foundation has also supported efforts along these lines. A number of states, including Oregon and California, are considering modifying aspects of the high school curriculum in order to establish model youth apprenticeship programs.
control) and, perhaps more seriously, face difficulties altering their overall work organization to accommodate more flexible production systems. As a result, American firms are often less productive and competitive than are comparable firms in, say, Germany and Japan.

We do not wish to review here the evidence supporting this line of argument—although we do believe that the case, while perhaps overdrawn, is essentially correct. However, we do want to explore the recommendations that have flowed from this analysis.

Current policy proposals such as the recently introduced High Skills Competitive Workforce Act of 1991 have two characteristics that distinguish them from most earlier federal efforts. First, because policymakers now perceive the issue of inadequate training as generalized throughout the economy, they are conceiving new programs that are broadly based and able to serve a wide range of clients—not simply persons below specified income cutoffs.

Second, most current proposals are "employer-centered"—they emphasize working directly with employers (and with unions where they are established) and treating firms as clients. Such proposals might involve helping businesses to train new hires or to retrain their incumbent workers in order to improve productivity and competitiveness. Training would occur in a range of areas, including new technology, techniques such as Statistical Process Control, Total Quality Management, and literacy. Additionally, the employer-centered approach may extend to providing support to firms that want to reorganize their production systems to establish autonomous work teams and higher productivity arrangements.

The rationale for making an employer the client lies in the productivity (as distinct from distributional) goals of the proposals. Advocates believe that for training to improve productivity and competitiveness it must take place in the context of the employer's actual operations and be addressed to the production needs of specific firms. This is particularly compelling when the training is linked to changes in production systems.footnote{7}

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* The most persuasive evidence comes from matched samples of firms in the same industry that differ in their training practices. For example, International Automobile Project found that those firms doing less training were also less likely to successfully introduce flexible production systems, and that American firms were on the low end of the training spectrum [McDuffie and Krafcik, 1992]. There is less systematic evidence of similar patterns in other industries, including those in high technology [Kochan and Osterman, 1991]. In addition, many firms (the best-known cases include Motorola, Xerox, and Corning) that have transformed their production systems have done so in part by increasing the training they provide their work force. Finally, interviews with smaller suppliers suggest that workforce preparation is a barrier to the adoption of new techniques such as Statistical Process Control.

The reason to be cautious is that the direction of the causal arrow is not clear. Advocates of increased training tend to assume that this is a necessary first step, and that workforce skills are a barrier to new production systems. It may be that other variables determine whether firms transform their production systems, that those following this course increase employee training, and that training per se is not an issue. Besides, average American productivity (as opposed to rate of change) is still high by world standards, and U.S. manufacturing labor productivity has increased sharply in recent years.

Our reading of the evidence, and our own interviews, suggest that there is a training problem in many American firms and that the problem is most severe in smaller firms. Here, for reasons to be discussed, the potential contribution of policy is the greatest.

7 It is worth distinguishing this rationale for employment policy from that of the nation which has exemplified policies praised by an earlier generation of U.S. advocates of expanded employment policy, Sweden. In Sweden—unlike the United States—employment and training policy is not income-targeted and is intended to address central economic concerns. However, the programs
The shift away from income targeting is the logical consequence of making the program productivity-oriented and employer-centered. If the intent is to work with a wide range of employers, encouraging and assisting them to improve the skill level of their labor force, then clearly the program must be able to serve persons well above the poverty line.

A non-income-targeted employment and training policy that views the employer community as a significant client would be a considerable departure from current federal efforts. So isolated is the Job Training Partnership Act from employers that a Bureau of National Affairs Survey of large employers found that only 9 percent had any contact with JTPA [BNA, 1985]. Furthermore, virtually all federal job training programs are income-targeted, although some have long viewed this as a major weakness of the system.\(^5\)

If we were to rely on national experience alone, it would be difficult to assess what is involved in mounting an effort along the lines we have outlined. In general, the only experience the federal employment and training program has had in working with employers is in the context of such income-targeted efforts as subsidized on-the-job training (OJT), efforts that are typically aimed at a small subset (low wage/low skill) of the employer population.

There is, however, another source of experience. During the past decade, state and local agencies experimented widely with employment and training programs. These experiments can provide the basis for thinking about restructuring federal policy. While recent state and local efforts are generally small and deal with only a piece of the problem, they do tend to share the general character of the current ideas for a new federal policy: They are not income-targeted, and they work directly with firms as well as with individuals.

The experience of states, then, can help us understand the issues, the opportunities, and the traps confronting a possible national policy. Keeping in mind a broader understanding of the objectives and values of national policy, an examination of these state efforts can highlight some of the issues likely to arise in the construction of a federal employment and training system.

State-Based Employment and Training Programs

States have increasingly used their own resources to develop innovative approaches to employment and training programs. While no definitions are precise, we have identified three categories of such initiatives: income-targeted or community-based efforts, agency-based models, and public education-based systems.

The first group involves innovations in the kinds of targeted, low-income programs that characterize most current federal expenditure. Examples are

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\(^5\) The problem is that graduates of income-targeted programs can be stigmatized and employers may avoid them. For evidence on this point, see Osterman [1988].
the California GAIN program and the Massachusetts Employment and Training Choices (ET) program. Both contained training and work provisions for welfare recipients which anticipated those found in the 1988 Family Support Act. These programs do not typically address the broad questions of competitiveness that motivate the current discussion of training policy, although there are efforts to increase the involvement of employers in decision making through Regional Employment Boards (formerly Private Industry Councils). In any case, many careful studies of these programs exist [see, e.g., Ashenfelter and Bassi, 1986; Bailey, 1988]. For these reasons, we did not include examples of income-targeted state programs in our research; nonetheless, we believe that current proposals for more general programs should take into account distributional issues.

In the second group, agency-based programs—often referred to as “customized training”—provide employer-centered training to particular businesses and/or unions. Their goals include business attraction and retention through the training of new hires and the upgrading of incumbent labor forces. As of early 1990, 44 states had at least one such program, according to a survey by Creticos, Duscha, and Sheets [1990].

These programs have varied origins. Most began as smokestack-chasing efforts intended to offer subsidies, in the form of reduced training costs, to firms that located or expanded in the state. Others, such as the California Employment and Training Panel (ETP), originated as responses to high unemployment and the difficulties of placing dislocated workers; yet others, such as the various state “skills” corporations (modeled after the Massachusetts Bay State Skills Corporation), attempted to link public educational institutions more closely to the training needs of firms.

Agency-based programs also vary in their funding mechanisms. Though most rely on general state revenues, a few have developed notable innovations. Iowa uses levy bonds, for example, and California and some other states utilize a training tax levied against payroll.9

Finally, the customized training programs are usually administered through separate agencies created for this purpose and tend not to be linked to larger existing agencies responsible for other state and federal training, job placement, or education activities.

By contrast, the third approach to training builds upon what in many states is a large, well-developed community college system. Community colleges have grown sharply in the last two decades. In 1991, for example, enrollment grew at 8 percent, while overall enrollment in four-year public and private institutions grew at only 1 percent. Of the nation’s 14,157,000 students enrolled in higher educational institutions in 1991, 5,334,000 were students in community colleges [DePalma, 1992]. Although many systems began as transfer programs into four-year colleges, there is now a strong vocational cast to community colleges: 75 percent of students who name their field are vocational, and 75 percent of all AA degrees are vocational [McDonnell and Grubb, 1990, p. 39]. Although there are sources of concern about the overall quality of community colleges—for example, 42 percent of

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9 Originally the state of California financed ETP from the Unemployment Insurance base by reducing the UI tax by 0.1 percent and levying an equivalent training tax. Subsequently the UI tax rate has been independently set, and thus the ETP funding mechanism is best thought of as a straight training tax.
enrollees drop out without a degree [McDonnell and Grubb, 1990, p. 41]—the evaluation evidence of the rates of return to community colleges is positive.\footnote{There are very few credible evaluations of community colleges; the most comprehensive effort is Grubb [1990]. He finds that there is no rate of return to community college certificate programs for men, and that women gain only in business and technical courses. The rate of return to community college degrees is sensitive to what controls are included in the model, but in general the rate is positive and nontrivial for both men and women. Simply taking community college courses without getting the degree does not yield benefits. Two points should be kept in mind, however, in interpreting Grubb's data. On the one hand, his data is from the high school class of 1972, who entered community colleges before those institutions' widespread acceptance of vocational training as a mission. It is likely that the overall quality of vocational training has improved during this period. On the other hand, noncompletion rates have also increased, and Grubb's results suggest that such students gain few benefits.}

Community colleges have become quite entrepreneurial about their role in training adults. In addition to regular degree programs, many community colleges provide nondegree short courses for adults and engage in “customized or contract training,” in which they design special training programs to meet the particular training needs of firms. The latter resemble the employer-based programs described above in many respects, but they benefit from being integrated into a system with a variety of programs for meeting individual as well as employer needs. Community colleges have also served as the home for small business training consortia, local economic development programs, and new technology and training centers.

We examined programs in four states which, taken together, represent the range of programs described above. We chose our cases by consulting with persons broadly familiar with efforts throughout the country. Our aim was not to examine a random or representative sample of state programs, but rather to choose programs that are well regarded and seen as reasonably successful. This approach met our goal of drawing national lessons from best-practice state efforts. With these criteria in mind, and guided by the views of many informants, we chose the California Employment and Training Panel (ETP) and two Illinois programs as examples of agency-based programs and the North and South Carolina community college systems as examples of the education-based model. For each of the case studies we visited the relevant states and conducted interviews with a wide range of knowledgeable individuals, including state officials, training providers and trainees, grant recipients, legislative staff, and outside experts such as academics and public interest groups. We also visited training sites and obtained and reviewed documents such as annual state plans and program evaluations.

In the appendix to this article, we provide a moderately detailed narrative of these four programs. More information is provided in Batt and Osterman [1992].

LESSONS FOR FEDERAL POLICY

In this section we describe the concerns that arise when an employer-centered training program is implemented. In the next section we will discuss possible solutions. It is clear that the employer-centered character of the state programs can lead to difficulties that do not occur under more traditional (i.e., individual client-centered) employment and training programs.
Employer-centered training runs the risk of providing subsidies to firms to engage in practices that they would otherwise undertake and finance on their own.

There are several reasons for concern along these lines. First, many of the state programs began as efforts to attract employers from other states. This often entailed training subsidies with no attention to whether the firms should, or would, pay the costs themselves. Whether or not these efforts make sense for a state, they clearly are not in the federal interest. The problem, however, is that a federal program would in all probability remain locally managed, and local officials would confront strong temptations to accede to the requests of employers for help. These requests, sometimes accompanied by threats to relocate or reduce employment expansion, are hard to resist.

The risk is heightened by the very nature of employer-centered training. When a firm proposes a training program, it is very difficult for the state agency to determine whether the effort will be a net addition to what the firm would have otherwise undertaken.

Each of the state programs we examined had funded programs that in retrospect appeared, in our opinion and in the opinion of informed outside observers, to represent substantial subsidies of activities that would have occurred without public funds. In California, the ETP program helped a large aircraft manufacturer recruit and train a labor force which, because of a federal contract, it surely would have done on its own. In Illinois, the state used the Industrial Training Program (ITP) as a tool to attract firms to the state by offering various subsidies. In North Carolina, some community colleges used the New and Expanding Industries Program (NEIP) to provide services that would normally be provided by a firm’s personnel department. For example, staff at NEIP would place job ads, interview applicants, and select a group for training; would use employer money to pay a stipend without placing the trainees on the firm payroll during training; and would conduct a post-training selection process before turning over a subset of the group to the firm.

Employer-centered programs raise troublesome distributional issues, even in the context of non-income-targeted programs.

There are a number of reasons why service to underserved groups remains important. From the national public policy perspective, scarce dollars should be directed, in important measure, to those individuals most in need. In addition, service to underserved groups is a strategy for avoiding the subsidy/substitution issues just raised.

Attentiveness to underserved groups does not mean the extreme of income-targeting. Distinct means-tested programs are indeed subject to the criticism that they repel employers and stigmatize their clients. The objective is rather to ensure that these distributional considerations are attended to within broader-based programs that necessarily serve a wilder clientele.

Our observations suggest that agency-based training programs are rela-

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11 The federal government should not be in the business of helping states to induce firms to relocate from other states.
tively indifferent to serving individuals who face systematic difficulties in the labor market. This distance arises in part because the goals of the programs are different—they often focus upon business attraction or retention—and in part because of the perception that the true clients of these programs (firms) will avoid participation if the programs pay particular attention to underserved groups.

A striking illustration of this point is that there is virtually no communication between the agency-based programs and the Federal Job Training Partnership Act system or the JOBS (welfare recipients) training systems. In our interviews with state program officials, they were explicit in their desire to avoid association with JTPA and JOBS—clearly distinguishing between the economic development and competitiveness purpose of their own training programs and the "social service" objective of JTPA and JOBS. Adding to this bias is the fact that within non-income-targeted state training programs such as ETP, employers tended to prefer training incumbent workers over new hires.

The community colleges are different in respect to distributional concerns. In part, this difference arises from administrative arrangements: in North Carolina, for example, the community college system administers customized training for firms as well as basic education and literacy programs and federal training programs such as JTPA, Title III displaced worker programs under JTPA, and the Carl Perkins Vocational Education Act. We found several examples where JTPA clients and welfare mothers were able to use the community college and NEIP program to receive training and placement in jobs without being stigmatized or identified as "disadvantaged." More generally, by virtue of their dual function as an educational institution and a training agency, the community colleges tend to be more open to admitting a diverse group of students or trainees. This tendency is apparent in the North Carolina system, where data on the student characteristics reflects regional demographics: slightly more than 50 percent of enrollees are women and 20 percent are black [NCDCC, 1990].

A somewhat different distributional issue also arises in the state programs: a bias toward funding large firms. In both California and Illinois larger employers routinely garnered the bulk of training dollars. There were several reasons for this pattern. From the perspective of state agencies, it is bureaucratically easier to deal with relatively fewer large employers than with large numbers of small firms, each of which would require a distinct contracting procedure. In addition, larger firms are better able to pull employees out of the production flow in order to receive the training funded by the programs. In all the states we visited smaller employers had organized to formally protest this bias.

Too often, employer-centered programs are project-based and pay inadequate attention to system building.

A central goal of policy should be to build a strong system rather than simply develop isolated best-practice models. There are by now examples in the field of well-managed, effective employment and training projects. The problem is that they do not add up to a great deal because they are not linked in a systematic way. At the federal level, categorical programs aimed at particular target groups often work through a variety of delivery mechanisms.
At the state level, the worst case is constant bureaucratic warfare among competing programs; the best case is a passive division of labor that creates no sense of a strong system [Grubb and McDonnell, 1990].

The importance of a strong system does not lie in an abstract academic interest in neatness. First, clients of programs—businesses and individuals—are less likely to use a fragmented system, in part because they are simply unaware of how to access services, and in part because what the system can offer is less impressive precisely because of fragmentation. Second, because of its weakness, a fragmented system is less able to respond to new needs; as a result, the government is continually forced to create new programs and new agencies. Finally, a fragmented system is politically weaker and hence unable to generate a strong and continuing constituency for employment and training.

The most compelling reason for system building is that the training problem is too big for a project-based approach to have much impact. There are too many firms relative to any conceivable level of public funding. Instead, scarce funds should be expended to build institutions that outlive a particular project and that continue to address the issue after the project funds are expended. We will discuss in the next section what some of these institutions might look like.

Neither the Illinois nor the California programs have devoted very much attention to system building. Grants tend to be evaluated on a case by case basis, and whether anything will be “left behind” after the grant expires is not typically a consideration. While exceptions exist, the states pay little attention to institution building in the sense of creating permanent links between state agencies involved in education, training, and employment security. Indeed, as noted, intense rivalry is more often the rule. Our interview notes are full of disparaging comments made by representatives of one state agency about other agencies involved in training.

The problem is more fundamental than the interagency rivalry that has been frequently noted and criticized in past reviews of employment and training programs. For example, a constructive system-building activity (which we advocate) would be to attempt to strengthen intermediary organizations such as business associations or unions. However, this is not central to any state policy.

The absence of system building in agency-based programs stands in contrast to the community college systems, which clearly have an ongoing institutional presence that is more substantial than any particular project or grant.

**SOME SOLUTIONS**

Just as our observations of the case studies point to difficulties, they also provide examples of policies and techniques that can help resolve such problems. One way of thinking about the solution is to ask what criteria should be applied to the expenditure of federal dollars that might flow to the states to support employer-centered training programs. The following criteria or guiding principles grow out of the state experiments we have discussed. Each guideline responds to one or more of the central issues we have identified, including substitution, accountability, distributional issues, and system-building.
Targeting Small and At-Risk Firms

Targeting small and at-risk firms is a strategy for dealing with the problems of substitution. It is difficult for a public agency to collect the kind of firm-level data necessary to demonstrate that publicly funded training programs represent an effort beyond what would otherwise be provided by firms. Thus, instead of attempting to collect such data, an alternative is to support training in firms that by their very nature would be otherwise unlikely to provide adequate training.

The emphasis on small firms is straightforward in that virtually all research on training finds that small firms provide less training per employee than do larger establishments [Bishop, n.d.]. The most commonly cited explanations are that small firms run a greater risk of losing their trained employees to rivals, and hence losing their training investment, and that smaller firms have fewer managerial and financial resources available for planning and delivering training. Programs aimed at providing disproportionate support to training in small firms are, therefore, less likely to subsidize activities that the firms would otherwise undertake on their own.

In our field work we observed a number of programs that were successful in reaching small firms—including North Carolina’s Focused Industry Training (FIT) program (described in the appendix) and the use of employer consortia as brokers, which we will later discuss at greater length. Another example is the Illinois Prairie State 2000 program, which targets small firms that are either in financial difficulty in the sense of losing money or that are reinvesting all their profits back into the enterprise. The rationale is that these firms are on the margin and that any public assistance will be a genuine addition to what they would do on their own. Prairie State appears to be successful in implementing this targeting scheme, but it places large demands upon the analytical skills of the public agency. Not only must the agency be able to assess the current condition of the enterprise, it must also be able to make an accurate prediction concerning the survival of the firm.

Establishing General Training Standards

General training standards also provide a partial solution to concerns about substitution. First, the problem of substitution is most troubling when firms use public funds to provide training that is very firm specific. A solution, therefore, is to ensure that public funds are spent on training that has a substantial general component. One way to do this is to develop uniform occupational training standards that are employed by a range of training providers.

In this model support would only be provided for training that meets those

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12 This is troubling because it means that workers cannot appropriate the training to their own benefit by moving elsewhere in the labor market. This kind of training is much more a subsidy to firms.

13 As a concrete example, in the Illinois project to develop standards, one occupation under development is General Production Technician in metal working. The proposed standard sets forth a description of the job’s duties, a relatively detailed skill performance standard (relating to blueprint reading, use of measuring tools, and measurement of accuracy), a demonstrated knowledge standard (relating to the nature and uses of different tools), and a list of competency levels to be achieved in reading, math, and written communication. See Sheets [1991].
standards, and the standards would incorporate general skills. The State of Illinois, for example, is experimenting with the design of training standards along these lines [see Sheets, 1991, for an extensive discussion], and ETP is also considering adoption of such standards.

An additional value of standards is that they establish a benchmark for measuring the content of the training that individuals receive and the skills they actually acquire. This is the first step toward measuring whether training dollars do what they are intended to do. Currently there are few evaluations of the quality or effectiveness of the employer-centered training provided, or its link to productivity improvement.

A third advantage of standards is that they represent a partial solution to the bureaucratic fragmentation of the training system. As a realistic matter, it is very difficult to integrate high school vocational education, community colleges, JTPA programs, and private providers. However, if they were all forced to train to a given standard, then many of the benefits of integration could be realized.

Building Employer Consortia

The use of employer associations as brokers for training programs responds to the need to build institutions that outlive particular projects. Such consortia are also a solution to the practical difficulty inherent in targeting small as well as large firms. These associations or collaborative firm networks have the potential to serve as effective intermediaries between the state and employers, particularly small ones, both to expand training and to accomplish other important human resource objectives. Furthermore, they are ongoing entities that survive any particular project. Hence, a project grant to an association has an institution-building impact that survives the project itself.

Employer consortia are effective in this role because they have the trust of member firms and because they meet the needs of both the state and independent small firms. State bureaucracies generally do not have the resources to administer thousands of small contracts, and small firms usually do not have the resources necessary to pursue complex grants with the state. Public administrators thus solve problems related to the equitable distribution of funds to small firms, and small firms gain access to programs in which they would otherwise be unlikely to participate.

In addition, the better employer associations house considerable expertise on training and technology; they can also combine assistance in the area of training with assistance in other fields (e.g., marketing) and hence get the training message taken more seriously.

The examples from our case studies suggest that there are two types of training consortia. In the first model, employer associations develop and initiate training programs while the government plays a largely passive funding role. The Los Angeles chapter of the National Machining and Tooling Association (NMTA) and the Management Association of Illinois (formerly MIMA, or the Midwest Industrial Management Association) illustrate this approach. This model relies on the prior existence of associations that are active and well-organized—a description that probably characterizes a mi-

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14 Unions can also serve as brokers, as occurred in the sheetmetal workers and UAW programs in California.
nority of associations in the country. In California, for example, the state has sought to address the problem of lack of small firm participation in ETP by actively seeking the involvement of associations such as the building trades and sheetmetal workers. The experience of California, however, is that these associations are difficult to find. In general, small business is not organized. To extend this model, state agencies would have to play a more active role in organizing associations.

The second model is built on this assumption: that public agencies must play a more active role in facilitating the development of employer and other associations. The model also involves broadening the participation of local organizations to include not only firms but also community groups, unions, educational institutions, and a range of government bodies. It is considerably more difficult to accomplish than the first, but offers the possibility for building a broader political base to weather funding crises and a broader constituency to deal with serving a broad range of groups.

With these considerations in mind, we believe that program funds should, in important part, be expended to build up the role of these associations and networks—either to strengthen already existing ones or to establish new ones where they do not exist.\(^\text{16}\)

CONCLUSION

There are many proposals on the table for a new federal training effort that is not restricted to low-income persons and that views firms rather than individuals as clients. To date, the advocates of these ideas have not con-

\(^{15}\) We did not observe efforts of this kind in any of the states described in this article; but we did find an exemplary project in Massachusetts known as the Machine Action Project (MAP) [see Batt and Osterman, 1992]. MAP began in 1986 with funding from the State of Massachusetts to establish a cooperative regional industrial district modeled after such districts in Europe. In response to plant closings and layoffs in the metalworking industry in the Springfield area, local employers, labor unions, community organizations, and public agencies applied for state funding and established the Machine Action Project. MAP staff provided the organizational support for the local coalition, which was guided by a 20-member board of local leaders from diverse constituencies. Project staff built up a network of small metalworking shops linked by a computer information system. Training coupled with technical assistance in technology and work reorganization formed the core of MAP activities designed to revitalize the local economy.

\(^{16}\) An additional system-building strategy is to strengthen employee voice inside of firms on training issues. Building employee voice into training programs offers several advantages: It serves as a source of system building, of monitoring program quality, of supporting the equitable distribution of training resources, and of ensuring against the use of public dollars to supplant private efforts. Batt and Osterman [1992] document the very effective work of the Alliance program, a joint effort between the Communications Workers of America, the International Brotherhood of Electrical Workers, and AT&T. It is unlikely that employee voice mechanisms in nonunion settings can be as effective, but they may still play a constructive role.

While provisions to include employee participation in state programs are not widespread, some innovative efforts are underway. Several states, including California and Illinois, already require that unionized firms that apply for training grants obtain the support of the union as part of the application process. California is now considering a provision that would require nonunionized firms to establish an employee training committee in order to receive funds.

Although such a strategy may seem promising, state officials express fear that such a requirement will deter firms from participating in the training program. This is a legitimate concern, and it is likely that any efforts along these lines will need to be introduced through incentive grants rather than requirements.
fronted the more practical questions of what such an effort would look like and what issues would arise. We have addressed these questions by drawing on an unexploited data source—the experience of state programs that contain many of the proposed elements of a national effort.

Our conclusions are cautious. We believe that a case exists for non-income-targeted programs motivated by competitiveness concerns and targeted on firms. The problem, however, lies in designing a large-scale program that meets defensible objectives while avoiding pitfalls such as the substitution of public for private training dollars or the substantial avoidance of groups most in need. These problems are exacerbated when firms are made the clients of the program.

While the state efforts we studied made us wary of simply expanding any particular model into a national program, each of the states also contained examples of strategies which, taken together, suggest a way out of the difficulties we describe. In previous section of this article, we described a number of such strategies.

One issue implicit in the discussion, which we have not resolved in our own minds, concerns the merits of a community college-based program versus a stand-alone state agency approach. The advantages of using a community college system are that it is bureaucratically stable, less likely to systematically exclude lower-income groups, and able to coordinate a wide variety of state and federal programs. Furthermore, as we have seen, it is possible to design programs within a community college structure that mimic what the stand-alone programs offer.

By contrast, the advantage of the agency-based programs is that they appear to be more flexible and quicker to respond to the changes in technology and in the demand for skill in the workplace. They are also able to draw upon a broader range of training providers and are perhaps therefore more likely to offer state-of-the-art training.

For these reasons we remain uncertain about the appropriate delivery mechanism at the state level and believe that any new federal effort should experiment with diverse approaches.

While advocates of an employer-centered training policy can learn a good deal from state programs, as we hope we have demonstrated, there also remain some difficult open questions. At the top of the list is whether a training policy can achieve the productivity and competitiveness goals that its advocates espouse. As noted earlier, there is a correlation between investment in the labor force and use of "transformed" production systems, but it does not follow that an increment of additional training will shift firm decisions about how to organize production. We did observe instances in which

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17 In our initial survey to identify state agencies to visit, experts suggested several programs that, by the time we began to contact them, had been abolished.

18 A community college will tend to use in-house capacity to provide training since in that way costs can be amortized. By contrast, state programs can put training contracts out to bid and take advantage of a wider range of training providers.

19 It is easy to list a set of considerations that seem at least as important, if not more important, than employee skill in influencing decisions about production systems. These include the nature of product markets, managerial values, the time horizon of firms, and technical knowledge about the existence and implementation of alternatives. It seems best to think of employee skill as being one consideration, and it seems prudent to argue that improvement in skill levels can alter the cost of just one (albeit important) variable in the firm's calculation.
firms that reorganized production drew upon state training programs, but we cannot assert that the firms would not have undertaken the transformation in any case. Nor can we rule out cases of firms that received assistance but did not respond as expected. A considerably more sophisticated research design, more sophisticated than any that we are aware of, would be necessary to test this hypothesis. This line of thought leads us to argue that employer-centered training strategies should be implemented in the context of efforts along other dimensions (e.g., technical assistance in technology delivered by industry associations).

The other difficult question is the place of employer-centered training in the broader employment and training system. One issue is the relative weight to be given, in the context of scarce resources, to the traditional remedial/distributitional function of federal policy as compared to this newer concern. Second, other policy innovations, such as attempts to adopt the German apprenticeship model or to enhance cooperative education in high school, also call for working with employers. This suggests that thought needs to be given to strategies to avoid overwhelming and confusing employers with policy initiatives. In addition, there is considerable discussion of a federal training tax; this might appear to represent an alternative approach to directly enhancing employer training, but can also be thought of as complementing such policies.20

20 This tax is modeled on European grant-levy schemes. The employer is assessed a percentage of payroll costs (typically 2 percent), but the funds are returned if the employer spends that much on training. If the funds are not returned, they go into a training fund administered by the government. The two approaches are not inconsistent, because the training fund could be the revenue source for the employer-centered training discussed in this article (although there are other plausible sources, including the kind of Unemployment Insurance tax schemes used in California).

The great attraction of the grant/levy scheme is its simplicity. If firms for whom the constraint is binding (i.e., who spend less than the threshold) comply, then the nation’s training is enhanced without the problems inherent in the creation and delivery of a government program. These arguments are powerful, yet there are reasons for concern. French and British experience suggests that small firms are likely to be net payers into the system but not receive a fair share of benefits [Gehin, 1986; Senker, 1990]. The reason is that small firms have more difficulty meeting the targets, yet also experience difficulties receiving funds from government agencies.

In France, for example, the gap between training expenditure of large and small firms did not change over the program. In 1972, firms with between 20 and 49 employees on average spent 0.62 percent of their payroll on training, while firms with 2000 or more employees spent 2.5 percent. By 1984 the gap had widened to the figures 1.22 percent and 3.45 percent respectively. In the large firms, 38.3 percent of employees received training, while in small firms, the rate was 9.7 percent [Gehin, 1986, p. 81].

Not only has the French system not closed the gap between the large and small firms, but it also became a transfer system from small to large. This is because small firms paid more in taxes but received less in grants (for the reasons cited above). Hence, for every 100 francs deposited into the fund, small and medium firms received 50 francs back while large firms received 120 back.

Of additional concern is the potential of the program for stimulating creative tax avoidance. Either the government establishes a substantial bureaucracy to monitor compliance, or else it must accept each firm’s accounting for training costs. Even with the exclusion of OJT, this is a murky area.

A final concern lies in the relationship between training and work reorganization. A central rationale for employer-centered training lies in encouraging firms to reorganize their work systems in the direction of transformed organizations. However, the training tax schemes are silent on this and simply aim to achieve a given expenditure on training. The advantage of funneling program expenditures through local agencies is that these agencies can make work-
These qualifications aside, it is clear that there is much more interest and policy movement now than ever before in the area of employer-centered training. This movement has the potential of overcoming what has in the past been one of the major weaknesses of the American employment and training system: its isolation from the day-to-day calculations of firms as they manage their human resources and production systems. We believe that these efforts, if properly structured and managed, are worth pursuing.

APPENDIX: THE STATE PROGRAMS

Agency-Based Programs

California. In operation since 1983, California’s Employment Training Panel represents the most substantial financial commitment to employment training of any state. In the course of nine years, ETP has approved 1200 training contracts with an enrollment of 198,000 trainees. Over the program’s history, training costs have averaged $2000 to $2500 to retrain current workers and $3000 to $3500 to train and place unemployed workers in new jobs [ETP, 1990]. The size of contracts varies substantially, from $26,000 contracts to retrain 16 workers to $6 million contracts for 4000 retrainees.

The unique characteristics of California’s employment training program are its employer-driven quality, its substantial use of private providers, and its performance-based contract system. Employers identify the training needs of workers, develop training proposals (usually in conjunction with private providers), and submit applications to a state-level panel charged with approval and oversight of contracts. Training providers receive full payment for their services only if trainees obtain and remain in jobs that meet minimum wage standards (set by the state and varying by industry and occupation) for 90 days following the training.21 In other words, the state reimburses trainers only for those individuals who are still on the job 90 days after completing training.22

As in the case of most state programs, ETP self-consciously distinguished

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21 By contrast, for example, the Job Training Partnership Act requires a 30-day job placement for full payment.

22 The performance standards have had important consequences for the overall financing of ETP. It has meant that contractors frequently do not receive the full reimbursement anticipated in their original contract. Thus, if 70 percent of initial enrollees obtain and continue employment 90 days after training, providers receive 70 percent of the expected contract costs. Because
itself from the community college system. Training advocates saw the purpose of ETP as responding quickly and specifically to changes in the state's economy, technology, and employers' competitive strategies; by contrast, they viewed community colleges as more interested in the broader long-term academic needs of the regions in which they were located, and in particular, of serving as transfer institutions to four-year universities. Training advocates worried that ETP would become a low-priority program if housed in the large community college institutions.

The avoidance of community colleges led to a model of contract administration and training in which many employers subcontracted with private consultants to develop ETP training proposals and to serve as brokers between the state and the employer in contract administration and documentation. Often a second subcontractor, a private training agency, would provide the actual training. While program advocates welcomed this development as providing a flexible alternative to public education agencies that were unresponsive to employer needs, others criticized it as unnecessary, duplicative, and costly. Critics, for example, have portrayed private training consultants as unnecessary intermediaries living off of hefty government contracts.

Most ETP funds have gone to large corporations, a substantial portion of which are unionized and involve the union in the training process. Small and medium-sized employers have been underrepresented in ETP contracts. ETP's grant recipients have included the state's largest firms, including million-dollar-plus contracts to auto, aerospace, banking, and retail giants such as General Motors and Toyota (NUMMI plant), Rockwell International, Bank of America, American Savings and Loan, and Carter Hawley Hale (retail) [ETP, 1989, 1990].

The bias in favor of large firms occurred for several reasons. First, in the early years of ETP, large firms were more involved in supporting the legislation and more aware of the availability of ETP funds. Second, ETP had a small administrative staff and an abundance of funds that it was under pressure to spend or lose. Large contracts to prominent employers was one solution. Third, as ETP gained more credibility, smaller employers became more interested; but at the same time, the contract-based system became more complex and bureaucratic, particularly in the last five years. As a result, large firms able to hire highly specialized consultants were the ones most likely to succeed in wading through the complex system. Because female and minority workers are disproportionately employed in small firms, this large-firm focus had distributional implications as well.

Finally, although initially linked to the unemployment insurance system and intended to provide training for displaced (new hire) workers, 90 percent of ETP funds have gone into retraining incumbent workers [ETP, 1990]. This shift in emphasis also had distributional implications: New hire trainees tended to have lower educational levels than retrainees, were more likely to

completion rates have averaged 56 percent for new hire contracts and 78 percent for retrainee contracts [ETP, 1991], the Panel has retained a surplus of funds at the end of each fiscal year which are rolled over into the following year. Thus, while the initial law capped the fund at $55 million annually, the accumulation of unspent monies, coupled with the interest gained on unused funds, has led the ETP fund to grow larger each year. By fiscal year 1991, the fund had reached $142 million.
be on AFDC, and were more likely to be young, female, and members of a racial or ethnic minority [Moore, Wilms, and Bolus, 1988].

The set of issues and dilemmas raised by the experience of ETP over the first several years led to legislative reforms in 1989; these attempted to deal with issues of subsidies to large firms, distributional bias in the use of funds, quality and performance standards, and the strategic use of funds.

First, to address the issue of substitution and accountability, the legislature mandated that employers provide the Panel with a detailed business strategy, required in-kind contributions from employers, and established a new performance standard for retraining. Under the business plan, employers must show how and why the training is necessary for the company’s long-term business strategy and the job security of trainees. The new performance criteria requires employers to measure the productivity increases associated with the ETP training.

Second, to address distributional issues, the legislature placed greater emphasis on funding ETP training for small businesses, loosened the reimbursement criteria for new hire training in recognition of the additional risks involved, and mandated that ETP work more closely with disadvantaged workers, including migrants, seasonal farmworkers, and recipients under California’s state work/welfare program (GAIN).

Third, the legislature asked the Panel to begin submitting annual plans to the governor and the legislature, designed to target ETP training toward key growth industries, occupational skill areas, and regional labor markets. The intent of these plans, based on the labor market information system housed in the state’s Employment Development Department, is to give the Panel a strategy for targeting ETP dollars toward economic growth areas rather than approving contracts on a first-come, first-serve basis.

Illinois. The State of Illinois’ two employment training programs—the Industrial Training Program (ITP) and Prairie State 2000—have distinct purposes, eligibility rules, and reimbursement criteria.

ITP began in 1979 as an experimental effort to encourage new firms to locate in the state and existing firms to expand their operations. Given a growing loss of manufacturing jobs in the 1970s, the program’s focus was job creation: Legislators linked state assistance for training to firm investments in new equipment and facilities. ITP financed the training needed for new employees to operate new technology. From a budget of $24,000 and one contract covering 10 employees in 1979, the program grew steadily until it reached 94 employers and 6000 workers in 1986. Participation quadrupled in 1987 to 25,000 workers, and has continued to climb since then. The 1990 budget of $33 million represented an all-time high. Between 1979 and 1990, ITP trained approximately 130,000 workers in 700 firms for a total of $106 million dollars.

Prairie State 2000 Authority, originated in 1983, more closely resembles California’s ETP in its focus on retraining current employees in new technologies and work organization in order to increase the competitiveness of existing businesses.23 The Prairie State program, however, is significantly

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23 In fact, the original purpose of Prairie State 2000 was to establish individual training accounts for unemployed insurance claimants and potentially displaced workers. Because difficulties
smaller than ETP, with funds totaling approximately $10 million between 1986 and 1991.

Prairie State's small funding base, coupled with strict requirements to assist financially needy companies, has meant that the program serves primarily small and medium-sized employers. Grants in 1990–1991, for example, averaged $17,000 per firm; the average size of participating firms was 158 employees. Additionally, assistance is only available to "at-risk" firms, defined as those that either reinvest all profits back into the company or are operating at a loss but with a business plan for recovery that includes training.

Over time, ITP has shifted some of its funds to retraining programs similar to those operated under Prairie State. This shift, in response to the changing economic conditions of the mid-1980s, allowed ITP to assist firms in retraining workers for increased productivity and improved product quality.

This shift in emphasis from attraction and new hire training to retention and retraining was evident in the fiscal year 1992 budget allocations. The state legislature reduced funding for ITP from $28 million to $13 million and increased the budget for Prairie State 2000 from $2.3 million to $6.9 million. The legislature made another $1.1 million available to Prairie State for the development of basic skills and literacy programs.

Education-Based Systems

In contrast to California and Illinois, North and South Carolina have pursued a state training policy in the context of a strong community college system. The differences between the training systems in the two states are minimal. North Carolina has a more decentralized structure that gives more decision making power and autonomy to local colleges. And in recent years, South Carolina has taken the lead in developing technology and training resource centers at different community colleges, with each striving for state-of-the-art technology and training in particular occupational fields.

North Carolina. The North Carolina community college system is the state's major vehicle for technical training. The system is massive, comprehensive, oriented toward working adults, and accessible to large portions of the population. Serving 662,255 students in the 1988–1989 academic year, the system employed a staff of 8785—including 3699 faculty located at 58 colleges across the state. The 1988–1989 budget totaled $457 million, of which 77 percent came from the state, 11.5 percent from local sources, 7 percent from tuition, and 4 percent from the federal government.

The system is comprehensive and integrated. Unlike most other states, which administer employment training programs through a number of different state and federal agencies, North Carolina has consolidated all training programs with distinct funding sources under one administrative um-

arose in implementing this program, the state legislature amended the law in 1985. The new law created two separate programs: the individual training assistance program (ITAP), which largely continued the earlier work of the authority; and the employer training assistance program (ETAP), targeted to the needs of employers. Our field work and the discussion contained in this paper emphasized the ETAP program.
brella—a strategy that state officials claim improves coordination across programs. In addition to state-funded programs, for example, the system administers federally funded programs such as JTPA, Title III displaced worker programs under JTPA, and the Carl Perkins Vocational Education Act.

Consolidation creates the potential for meeting the training needs of a broad cross-section of the state’s work force and employers. Programs fall into five broad categories: (a) curriculum programs for individual students, including technical, academic, and college transfer programs; (b) occupational extension (continuing education) for individuals or for workers sponsored by employers; (c) correctional education for the state’s inmate population; (d) special programs for individuals, such as literacy and remedial programs for educationally disadvantaged entrants and the state’s welfare-to-work program; and (e) targeted programs for employers, including a new and expanding industries program, a focused industry training program for existing businesses in the state, and small business centers. Whereas the state funds the first three categories through a formula based on full-time-equivalent student enrollment, the fourth category uses state and federal funds; the last category draws on separate state appropriations.

Enrollment figures show that the system is oriented toward technical, vocational, and occupationally relating training. The colleges enroll twice as many students in extension as in curriculum programs oriented toward associate degrees. Of those in curriculum programs, the overwhelming bulk are in technical and vocational fields rather than in college transfer programs. The majority of extension students take occupation-oriented classes. The system’s orientation toward the working population is also evident: 60 percent of enrollees work full-time, 10 percent are employed part-time, and the remainder are out of the labor force. Almost 45 percent of students attend night courses.

Between 1963 and 1989, the New Industries Program (renamed the New and Expanding Industries Program, or NEIP) trained over 210,000 workers for 2424 corporations. In 1989, a budget of approximately $9 million covered training for 16,800 workers for jobs in corporations such as American Airlines, Lenox China, and American Express. Complaints from in-state businesses in the late 1970s that the state was unfairly subsidizing out-of-state firms, however, led to a comparable program (the Focused Industry Training, or FIT Centers) for in-state firms beginning in 1981.

The FIT program targeted training for small firms in highly specialized areas that could not be covered by the system’s continuing education program because of the small numbers of trainees involved. Between 1981 and 1989, FIT enrolled 38,000 workers from 4219 North Carolina firms in a wide range of training programs. The state’s strategy was to locate FIT Centers at community colleges serving an area with at least 10,000 manufacturing jobs. The program’s 1989 budget provided $75,000 to each of 24 centers across the state and enrolled 6500 workers in courses. In recent years, the state has complemented these programs by setting aside an additional $2.5 million for Small Business Centers at community colleges. These provide technical assistance to small start-up companies.

The most recent change in the North Carolina system of employment training is the establishment in 1987 of a Workers’ Training Trust Fund administered through the community college system and created from the interest
earned on a reserve fund of the unemployment insurance system. The interest generated $2 million for the trust fund in its first year of operation and is expected to generate $15 million in 1991. Unlike the community college system, which relies on general revenues from the state budget, the trust fund may be used to support a number of special training programs, including Focused Industry Training, workplace literacy programs, and a recent "Tech Prep" program designed to prepare high school students for community college programs.

South Carolina. The more centralized South Carolina community college system began in 1961 after a state legislative study committee appointed by then Governor Ernest Hollings recommended a crash program in technical training for industry. With a budget of $250,000, the state set up a Special Schools program which became the functional equivalent of North Carolina's new industries program. Working closely with the State Development Board (the state's economic development agency) to diversify the economy, the Special Schools program focused on providing a quick, flexible, and customized response to the training needs of firms willing to relocate in the state. Early users of the Special Schools program included Firestone Steel, Elgin National Watch, Smith-Corona Marchant, and Lockheed Aircraft—each of which used the training program in conjunction with the location of new plants in South Carolina. New industries included chemicals, plastics, electrical products, and metalworking [SBTCE, 1990].

Shortly thereafter, the state established a regional network of technical education centers (TECs) designed to provide post-high school technical training. These centers were the forerunners of the state community college system, consolidated in 1972 under the State Board for Technical and Comprehensive Education (referred to hereinafter as the State Board). As in North Carolina, the South Carolina System operates curriculum and degree programs in addition to job training through continuing education.

In its 30-year history, the special schools program has trained 130,000 workers in over 1000 firms. The overwhelming majority of workers have been in either textiles and apparel or metalworking and electronic machinery. In recent years, the program has trained about 9000 workers annually with a budget of $7 million and a staff of fourteen [SBTCE, 1989].

Since 1979, the State Board has undertaken a second major effort to promote economic development through training—this time to promote specialized technology resource centers at local colleges. The State Board began with a $600,000 per year set aside to encourage innovative programs and leverage grants from outside sources. Currently eight centers are in operation, specializing in robotics, applied microelectronics, electromechanical maintenance, computer applications, advanced machine tool technology, and plastics.

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