An examination of work-related education in the Pittsburgh area revealed some weaknesses of the educational system and suggested some strategies for improvement. The study found that work-related education is performed by a combination of institutions: formal secondary and postsecondary and informal postsecondary. It said that schools have evolved into very complex institutions, simultaneously serving many interests and purposes. As a result, schools must spend time negotiating politically rather than formulating and implementing strategic plans that emphasize one goal over another or that focus resources. Analysis of the work-related education system as a whole shows a lack of a unity of purpose and cooperation among various jurisdictions and entities. Community-based planning for improvements in the work-related educational system requires regional leadership, performance indicators, testing and counseling, and collaborative program development. A formal cooperation system was not advocated. Rather, activities could improve the system by shaping perceived goals and objectives; facilitating needed changes; advocating changes in laws, regulations, and procedures that create dysfunctional incentives; and improving the quality of information available to students, employers, and providers of education and training. (KC)
COMMUNITY-BASED STRATEGIES FOR WORK-RELATED EDUCATION

Morton Inger

Introduction

In 1988, the RAND Corporation and the National Center on Education and Employment (NCEE) began a study, under the direction of Thomas K. Glennan, of the work-related education system in the Pittsburgh metropolitan area. The study was intended to support a community-based strategic planning effort. RAND and NCEE hoped that such an effort would lead to improvements in the region’s work-related education by clarifying roles and missions of education and training institutions, establishing goals, developing regional strategies for meeting these goals, and identifying the resources to support these strategies. This paper briefly reviews the rationale for the advocacy of a strategic planning process and summarizes the lessons learned.

Fragmentation and Proliferation

More than two decades ago, Theodore Lowi pointed out that Americans, trying to accommodate the multitude of interests in their society, have divided and fragmented their institutions, both public and private. The proliferation of governmental and private agencies, said Lowi, results in a no-man’s-land among duly constituted but politically impoverished institutions. In the context of this fragmentation, it has come to seem impossible to formulate and implement a legitimate larger public interest that is more than the outcome of negotiations among an array of narrow special interests.

The fragmentation that Lowi described can be seen in the education and training systems in our nation’s regions. In Pittsburgh, the system is diverse and relatively uncoordinated. Elementary and secondary education is provided by some 80 separate public school districts and an array of private schools. Eighty percent of the students are in small districts outside the city. Graduates of these programs can continue their education at community colleges and proprietary schools as well as a variety of four-year colleges.

More significant than the number of institutions is that each one is independently governed and responds to distinct incentives. There is no overall design to ensure that the cumulative actions of these institutions will contribute to improvements of the region’s work-related education.

Since work-related education is performed by a combination of institutions—formal secondary, formal postsecondary, and informal postsecondary—the research team characterized this wide range of activities in the region as comprising parts of a system and looked at the entire system as a unit. Treating an entire region as a unit is normal for economic analyses, but it was an unusual approach for an educational analysis. Educational analyses have traditionally focused on individual schools or on single-jurisdiction school systems.

The arguments and data for this Brief are drawn directly from two papers by Thomas K. Glennan: Education, Employment and the Economy: An Examination of Work-Related Education in Greater Pittsburgh, coauthored with Susan Bodily, James Harvey, David Menefee-Libey, and Anthony Pascal (Santa Monica: The RAND Corporation, 1989); and a work that is forthcoming entitled Community Based Strategies for Work-Related Education.

The Need to Improve Work-Related Education

A succession of critics and commissions have forcibly argued that our education and training systems are not performing adequately. Employers complain that they cannot find sufficient workers with even rudimentary basic skills. International comparisons show that U. S. students perform particularly poorly on tests of skills related to adaptability and flexibility. The situation cries out for a thorough discussion of strategy and issues of feasibility. But at the local level such strategizing seldom seems to occur. The reasons lie in the character of schools in the United States.

Some have evolved into extremely complex institutions, simultaneously serving many interests and purposes. Parents view schools as key to the success of their children. Employers see schools as the principal source of training for their beginning workers. Interest groups and elected officials see schools as instruments for achieving larger social goals such as economic development, promoting social mobility, or combating social pathologies.

The need to serve many interests and purposes means that school leaders are more successful if they are skilled in political negotiation than if they simply possess executive skills. Rather than carefully formulating and implementing strategic plans that emphasize one goal over another or that focus resources, they must spend their time negotiating between teachers, administrators, board members, and community leaders. Given the conditions, it is little wonder that school systems exhibit few attributes of strategic behavior. In many cases, it is more expedient to placate important constituencies than to engage in fundamental reform. Reform of schooling by the school systems themselves is very difficult.

Though the extent of these difficulties varies, they are present everywhere. As things stand, the...
The obstacles to strategic planning should give pause to anyone seeking to create and implement a larger vision of public welfare than that encompassed by an existing political jurisdiction. Nevertheless, the need to create such a vision was an important premise of the RAND/NCEE proposal that a community seeking to reform its work-related education system should create a strategic planning process for itself. The proposal placed considerable emphasis on the process of strategizing rather than on the formal creation of plans. The goal was to have the community develop a shared understanding of the nature and needs of the local economy and of the resources it can draw upon for education and training.

In November, 1989, these issues were explored in a Workforce 2000 conference sponsored by the Three Rivers Area Labor Management Committee in Pittsburgh. Partly in response to the interests developed at the conference, the Allegheny County Commissioners asked the county Private Industry Council to create a commission to promote quality education and training for the workforce. (The commission is known as the Allegheny County Commission for Workforce Excellence.) Though this activity is in the earliest planning stages, the entire process leading to the formation of the commission offers useful lessons for others who are interested in improving the performance of educational and training institutions.

The Lessons Learned

The experience confirms the initial decision to treat the labor market as the unit of analysis and to view the variety of actors concerned with work-related education as components of a larger educational system. Selecting a labor market as the unit of analysis allowed the research team to examine all the institutions that provide education and training relevant to the region’s employers, the linkages—or absence of linkages—among these institutions, and the supporting activities that provide special funding or information.

The second lesson is that even when leaders recognize the need to look beyond their own separate jurisdictions and institutions, concerted action is difficult. The employers, community leaders, and educators to whom the research team have presented the results tend to agree that there is a regional problem but have difficulty deciding how to deal with the problem as a whole. The multiplicity of actors, the disparate problems that each faces, and the lack of political bodies that encompass the entire region all make it difficult to identify points for intervention. Further, existing organizations that cross jurisdictional boundaries do not have education and training as their mission and tend to be weak by design.

The absence of a mechanism for promoting concerted action across jurisdictions has made the task of creating a larger vision of the public welfare difficult. Clearly, a cross-jurisdictional approach is required. In Pittsburgh, as in many other regions, a large proportion of the region’s secondary school population resides outside the city. While the region’s leadership institutions have focused on helping the city’s schools, comparatively little assistance has been provided to those systems outside the city. Although some of these systems are wealthy districts requiring little assistance (and sending most of their students to four-year colleges and universities), many are not. Students could benefit from improved linkages between secondary schools, area vocational schools, and the community colleges or trade schools, but the fragmented nature of each of these groups makes such linkages difficult. While there are numerous examples of relationships between schools and employers resulting in effective placement or feedback into programs, these relationships are uneven and do not extend to all employers or programs that would benefit by such linkages.

Moreover, many proposals for improving work-related education and training are inherently cross-jurisdictional. For example, proposals that would provide employers with better information on potential new hires by improving records of student achievement and experience cannot work if they are restricted to one or only a few districts in a labor market. Similarly, proposals that would establish new and more comprehensive credentialing systems, or improve the quality of information available to students about training or employment opportunities, make most sense in the context of an entire labor market.

Since the system is neither centrally designed nor centrally managed, a critical question is whether the elements of the system, acting independently of one another, are adequately adjusting to the major shifts in demand for education and training. There is general agreement that changes in required entry-level skills require adjustments among the major components of the system (formal secondary, formal postsecondary, and informal postsecondary). For some occupations, increases in required skill levels suggest that formal postsecondary education is a prerequisite to entry. In other cases, technology may be changing fast enough that skill training should be mainly employer-provided, with the formal education system providing skills of a more generic nature.
Decisions concerning the specifics of curriculum and instruction are generally left to individual institutions, subject to state regulations and accreditation requirements. These decisions are often shaped as much by the interests and capabilities of an existing faculty or staff, or the facilities and resources available, as by the needs of the labor market or the individual students. Though state or governing boards try to counter these tendencies, they are not adequate to assure that all elements of the system are moving ahead in a manner that benefits the entire community. Both a jointly held vision of a strategy of education and mechanisms for coordination of program development are needed.

Further, changes in the relative importance of the three components of the work-related education system require reallocation of public resources among them. For example, a decline in the secondary school population coupled with a rapid change in the structure of the employment base in a region would reduce the requirements for secondary schooling while increasing the requirements for various forms of postsecondary schooling. Current funding formulas, largely based upon enrollments, lead to adjustments in public resource allocations. But allocations that are solely enrollment-driven do not assure that optimal adjustments are made. A broader perspective is needed to guide the reallocation of resources.

What Can Be Done?
The study was intended as a starting point for community-based planning for improvements in the work-related system. Consequently, the research team did not investigate specific actions that might be taken. Nonetheless, they can suggest the types of actions that might serve to improve the functioning of the work-related education system and, indeed, the education system in general. These are not recommendations. Rather, they are offered as grist for discussion and debate. One reason for taking a system perspective is that there may be actions to improve the performance of work-related education functions that can best be handled external to the individual elements of the system. The project suggests these candidates for such actions.

- **Regional leadership.** To foster discussion, consensus, and action, a region or metropolitan area might create a regional organization to provide sustained attention to these problems. Its mission would be to promote collaboration among key elements of the system; convene task forces and working parties to study or deal with specific problems; and publish regular reports on the state of the work-related education system. (The Allegheny County Commission for Workforce Excellence is implementing this recommendation.)

- **Performance indicators.** A regional system of indicators related to the performance and conduct of work-related education would provide the leaders of the various elements of the system as well as leaders of the larger community with a common base of data with which to discuss improvements. These indicators would provide feedback on progress toward improving the education and training system, establish expectations for improvements, and would aid in the targeting of assistance. Such a system, providing information for the entire market, would be a powerful start toward overcoming the region's fragmentation.

- **Testing and counseling.** A regional organization that provided objective testing and counseling could help students make career decisions and simultaneously help employers find new employees. It would also realize efficiencies by minimizing duplication of efforts.

- **Collaborative program development.** Given the numerous small districts that make up a region's public elementary and secondary schools, there are surely benefits to aggregating some functions, particularly those associated with development of programs and the upgrading of teaching staffs.

Despite the many reasons for considering activities performing work-related education as components of a system, RAND and NCEE do not advocate the construction of a formal system. In most regions, such an attempt would be politically divisive, time-consuming, and, almost certainly, a failure. Further, as a nation, we have come to recognize the shortcomings of large organizations in environments subject to rapid change. Many organizations are restructuring and decentralizing authority to create closer contacts between customers (clients) and suppliers (education and training institutions) in order to promote rapid, effective, and competitive adjustments to their environments. Development of a "mega system" is certainly not an appropriate response to the needs of improved work-related education.

Rather, the research team advocates activities that would improve the system by:

- shaping perceived goals and objectives;
- facilitating needed changes;
- advocating changes in laws, regulations, and procedures that create dysfunctional incentives; and
- improving the quality of information available to students, employers, and providers of education and training.
In short, if a community wants to assess and improve its work-related education, it must look at it with a vision larger than that of any single educational entity in the community. The art of actually achieving the larger goal of reforming an entire system lies in finding concrete actions that can be taken that allow the participants to learn and develop a shared vision. The initial development of a common purpose through overseeing a limited number of concrete programs may be a necessary precursor to the larger task of bringing about reform in the education and training system.

ENDNOTE
RAND and NCEE researchers are reviewing experiences of several other communities nationwide that have made cross-jurisdictional efforts to foster improvements in education and training systems. The steps taken vary widely, and none have engaged in a formal strategic planning process as yet. Still, the researchers are struck by the number of common themes that emerge that might be relevant to other communities. A synthesis of the experiences in Pittsburgh and the other communities will be published by RAND and NCEE in a forthcoming report.

WORK-RELATED EDUCATION SYSTEM PROVIDERS AND ENROLLMENTS IN PITTSBURGH AREA 1985-86

<table>
<thead>
<tr>
<th>Providers</th>
<th>Number of Providers</th>
<th>Enrollments¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal secondary</td>
<td>80 school districts</td>
<td>31,000</td>
</tr>
<tr>
<td>Public secondary</td>
<td>31,000</td>
<td></td>
</tr>
<tr>
<td>Vocational/Technical</td>
<td>12 schools</td>
<td>(8,500)²</td>
</tr>
<tr>
<td>Formal postsecondary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State-related¹</td>
<td>6 Institutions</td>
<td>1,400</td>
</tr>
<tr>
<td>Private¹</td>
<td>12 Institutions</td>
<td>450</td>
</tr>
<tr>
<td>Community colleges</td>
<td>2 Institutions</td>
<td>13,000</td>
</tr>
<tr>
<td>Proprietary schools</td>
<td>70 schools</td>
<td>16,000</td>
</tr>
<tr>
<td>Adult education programs</td>
<td>NA</td>
<td>5,300</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>450 programs</td>
<td>3,400</td>
</tr>
<tr>
<td>Informal postsecondary</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Business firms</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Community-based org.</td>
<td>&gt;28</td>
<td>NA</td>
</tr>
</tbody>
</table>

¹ Total number of students enrolled in each type of work-related educational program.
² Included in the enrollment figure for public secondary.
³ Part of the state system of work-related education.
⁴ Programs leading to less than a baccalaureate degree within four-year colleges.