New Visions:
Education and Training for an Innovative Workforce

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SECTION I

Introduction to Education and Training for an Innovative Work Force

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Chapter 1
Shared Visions: European and American Interests in Education and Training for an Innovative Work Force
A Synthesis of Conference Themes and Papers

Laurel McFarland

1. The U.S.-EU Conference

The Conference Setting

The world seems to be changing around us at a breakneck pace. Sometimes that sense of rapid change is abstract, gathered from articles and commentary proclaiming the onrush of the future. But at other times the speed of economic and social change takes on a very concrete form. For participants flying into San Diego for the United States-European Union Joint Conference on Education and Training, one inkling of the future occurred while they were still at the arrival lounge of the airport. The transportation shuttle they were to take from the airport to the hotel had suddenly merged with another firm and changed its van fleet's name overnight. Participants had to adapt to unexpected change just to find transportation to the conference hotel.

San Diego provided an ideal setting for this conference on adapting education and training to develop innovative work forces. From the moment conference delegates boarded the renamed vans, it was apparent that this was a city in flux. San Diego is a stunningly beautiful city perched on the California coast, with a deep harbor and an abundance of sun, but participants rapidly discovered that even paradise has its problems: unemployment, industrial restructuring following deep defense cuts, changes in international trade, and immigration pressures. Education is one of the most important weapons San Diego has in its arsenal to tackle these challenges.

Prior to the start of the conference, participants had the opportunity to tour the colleges of the San Diego Community College District (SDCCD). Many European Union (EU) delegates reacted to the tour with great excitement: the San Diego community colleges are living the future. The colleges are already focusing on the

future "visions" that the conference set as its themes:

- student diversity and "inclusivity" issues
- local leadership challenges
- involvement of small- and medium-sized employers in school-to-work programs

The SDCCD students were remarkably diverse with respect to age, gender, race, and learning needs. The local leadership has been strong and has had to respond to huge economic upheavals from unemployment and defense cuts. In addition, the colleges have recognized the vital importance of serving the training needs of local small- and medium-sized enterprises (SMEs).

As the conference began, it was clear the conference planners had chosen timely and important themes for both American and European participants. And San Diego proved to be a fertile ground for exploring the issues in a local context.

U.S.-EU Joint Conferences on Education and Training: An Evolving Partnership

The San Diego conference marked the second of three planned meetings between the U.S. and EU on these topics. A conference in Noordwijk, The Netherlands, in 1992 had laid the groundwork for U.S.-EU collaboration [1], following the 1990 Transatlantic Declaration on education and training cooperation between the two entities. Therefore, the San Diego conference, in a sense, represented the midpoint in the plans. Both sides were now beyond the introductions, beyond the discussion of terminology and definitions. It was time to roll up sleeves and get to work. As the collaboration begins to take on concrete form via consortia for international U.S.-EU student exchanges in vocational and higher education, for example, both groups need a practical understanding of each other's approaches, limitations, and possibilities.

2. From Conference to Volume

This volume grows out of the San Diego conference, but it extends considerably beyond a conference proceeding. It provides a comprehensive treatment of the challenge of adapting education and training to create an innovative work force. The conference program featured three sets of papers, covering the three conference themes: student diversity and "inclusivity," local leadership challenges, and the involvement of SMEs in education and training programs. This volume represents significant revision and reformulation of the presenters' ideas and contains some additional material.

The first part of the volume begins with a chapter that discusses the European perspective on reforming education and training policy to create an innovative work force. That chapter is followed with three chapters that comprise a case study of the United States' experience in adapting education and training to new challenges. Three perspectives are offered: (1) a federal perspective on the formulation of American education policy, (2) a national view of state system-building, and (3) a local view of one college's experience in responding to the changing educational needs of its community. The second part of the volume presents three pairs of chapters devoted to the three themes of the San Diego conference. Each pair provides an American and European perspective on the subject.

The European Perspective

Tom O'Dwyer's chapter puts the European participation in the San Diego conference in a broader perspective. The conference represents one piece of a much larger story about European efforts to maintain and improve the competitiveness of its work force. He notes that the European Union's interest in discussing education and training for an innovative work force with the United States stems from the fact that they share the same objectives. On both sides of the Atlantic, governments have become convinced that education and training is one of the most potent weapons at their disposal to fight unemployment and the dislocations brought on by technological change.

O'Dwyer's paper places the European role in the conference in the context of the EU's overall work force efforts. The most notable developments in Europe have been the Maastricht Treaty, which gives the European Community an explicit, legal role in improving education and training in Europe, and the White Paper entitled *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century.* The White Paper expresses the EU's desire to foster employment and social inclusion, while at the same time encouraging a flexible, decentralized economy. Education and training receive great emphasis in the White Paper, particularly the areas of adult training, lifelong learning, and the training of young people who have left compulsory education without any qualifications.

O'Dwyer also highlights several other factors in the EU's recent policymaking in the area of education and training. He covers the contrast between the growing number of EU member states (following the addition of Austria, Finland, and Sweden) and the declining number of EU education and training programs. The EU has tried to consolidate and rationalize its various programs, so as to better serve the needs of the European Community.

Thus, with these policy developments providing context, O'Dwyer provides the explanation for the EU's interest in exploring the San Diego conference's three principal themes. Inclusivity, local leadership, and SMEs all hold the key to successful education and training policy formation in the European Community.

An American Case Study of New Visions in Education and Training

The American Case Study section contained in this volume places the international issues discussed at the conference in sharp relief. The American experience provides one example of how nations have been struggling to meet the challenge of creating an innovative work force by reforming their education and training systems. American education and training policy is different from most European countries in that it is extremely decentralized. Localities and states have considerable autonomy in education, so the country exhibits a national "mosaic" of practice, rather than a centrally designed "system." In the United States, therefore, progress in education reform has been uneven, moving in fits and starts, buffeted by economic and political forces.

But the central policy goals remain. Recognizing and building on the nation's increasing diversity is crucial to creating an innovative work force. Local leadership is the key to creating effective partnerships among schools, colleges, businesses, and the community. And bringing SMEs into a full partnership with the educational enterprise is vital.

Three chapters examine the American experience in policy innovation at three different levels. The chapter by Augusta Kappner expresses the Clinton administration's national policy goals in reforming American education

and training. The second chapter in that section, by Winifred Warnat, stresses the nuts and bolts of building the new system, including the implementation of new federal laws, as well as local and state efforts at reform. The final chapter in the American Case Study section is by Augustine Gallego. It provides an account of how a single local district developed new visions to create an innovative work force. Together, these chapters show the excitement, frustration, and unpredictability of policy reform. Reform is always a reflection of its times, and the 1990s have brought a whole new set of challenges: stagnant wages, loss of faith in the efficacy of "big government," political tastes for shifting policy responsibility from the federal government to the states, and public pressure for a balanced federal budget.

In her chapter, Augusta Kappner discusses the federal policy innovations initiated by the Clinton Administration in its first two years (1992-1994) and passed by the Democratically controlled Congress. Dr. Kappner defines new visions as the new paradigms necessary to revolutionize education and training in response to momentous economic change. Under global pressure, American business has become more fast-moving and now demands flexible production, high skills, and innovative workers. Education and training policy must meet that challenge, principally by creating a more seamless *system* of education and training. She then enumerates some of the Clinton Administration's efforts to accomplish that, beginning with its expansion of early childhood education. She continues by describing the voluntary occupational skill standards encouraged by the new Goals 2000 Act, and the effort to enhance access to higher education by enabling students to participate in a national service program that provides credit towards college tuition. Vocational education and training have been more fully integrated into the rest of education and training policy in general, thanks to the passage of the 1994 School-to-Work Opportunities Act. Kappner concludes her chapter with an observation that the Clinton Administration's new vision of a more seamless, federally influenced system of education and training is now under re-evaluation. The change in political climate has reduced the prominence of federal reform efforts, and the locus for change seems to be shifting to localities and states. But, while at mid-decade the locus and approach may be changing, the economic pressures for nationwide educational change remain keen.

Winifred Warnat's chapter, the second American case study, concentrates on how the pieces of federal legislation can fit together to create a true *system* of education and training for work. That new system is characterized by the integration of vocational and academic education, the introduction of performance standards for programs and students, and the commitment to serve all students. With additional legislation pending, it appears likely that the new system will reflect an increasing emphasis on the consolidation and coordination of federally funded training programs. Dr. Warnat's chapter is also a reminder that the United States has a national, *not* federal, system of education and training. Through its legislative initiatives and funding, the federal government can lead reform, but the localities and states have considerable autonomy in delivering education and training at the local level. The goal of creating a true nationwide system of education and training for work has not yet been realized in the United States, but some of the building blocks for such a system have finally been enacted. If localities and states are successful in meeting the challenge to forge a comprehensive system, it will bring cohesion and quality to a nation of widely varying practices and programs.

Augustine Gallego's chapter on the SDCCD provides a local illustration of the American experience with vocational education and training reform. Dr. Gallego first takes up the national issue of SMEs and describes SDCCD's efforts to serve those firms through advisory committees, the wide spectrum of "contract training" for firms provided by San Diego's community colleges, and the construction of a Center for Applied Competitive Technologies. Serving SMEs represents an integral part of the college's mission, but it goes beyond that. The focus on SMEs by SDCCD has been a transforming force on the college: Conference visitors saw exciting "incubation" programs and efforts to link these businesses and the college closely together. During this visit to

San Diego's community colleges, participants saw a dynamic, committed community college staff and administration--and a proud, high-quality educational "product." Next, Gallego tackles the challenge of inclusivity. San Diego is a remarkably diverse, multicultural community. SDCCD has introduced an innovative program called the Consortium for Workforce Education and Lifelong Learning (CWELL), which is designed to help classroom teachers solicit information from their students to help them adjust their teaching styles to students' learning needs. The hope is that the students will be more engaged, which, in turn, will encourage them to stay in school and complete credentials. On the theme of local leadership, Gallego notes that the greatest local leadership challenge in his area is to build the consortia that can sustain a strong school-to-work program. He concludes his chapter with an endorsement of international opportunities to discuss education and training: Even localities can learn from best practice in other countries. Exemplary programs and practices in those countries can provide an impetus to help San Diego and communities across the country--and the Atlantic--"be their best."

3. The Conference Themes as Chapters

Inclusivity: The Legal and Political Struggles for Equality

The relationship of the individual to the whole is a complicated topic. In simplistic shorthand, many commentators have noted that the American tendency is toward individuality and personal responsibility, while the European tradition is one of collectivism and social cohesion. The task of including all young people in the learning enterprise, the challenge of "inclusivity," illustrates a profound philosophical difference between the United States and many European nations.

With respect to education, this difference translates into an American approach to education that emphasizes the individual's responsibility to pursue an education and find a good job. If each individual studies and works hard, then the sum of their individual efforts will improve society and the economy. The policy goal in this American setting is how to create education and training opportunities that can attract individuals of diverse backgrounds. In contrast, the European image is one of an education and training system that aims to serve all students, though perhaps through different streams or modes of education. The policy challenge in achieving inclusivity, then, is to avoid excluding individuals from this system because of their background, poor preparation, or lack of information.

The two chapters on inclusivity in this volume mirror this philosophical difference between American and European orientations toward inclusion: Esteban Soriano looks at the American experience with trying to draw all individuals into a productive whole and, in so doing, both celebrate that diversity and improve the economy's bottom line. In contrast, Gerhard Welbers believes that the threats to social cohesion in EU member states is caused by the exclusion of those who drop out of the education and training system.

For years, the United States has been wrestling with how to forge a cohesive society from one of the world's most diverse populations. In the decades following World War II, the federal government enacted legislation to guarantee all individuals equal opportunity in education, employment, and housing. The nation's courts have upheld this effort, and during periods of judicial activism, have even gone beyond the efforts of the executive and legislative branches. But the road to racial and cultural inclusion, called "inclusivity" in this volume, has not been straightforward. Many forces have been at work on America's policymaking concerning equal opportunity, often pushing in opposite directions. Soriano examines some of the recent American experiences with diversity in his chapter. In particular, he documents the efforts of many companies to recognize the economic, as well as the societal, benefits of embracing inclusivity and cultural diversity in their work force development programs.

But at the same time that companies and educational institutions are making progress grappling with diversity, national policy has been changing, even reversing itself, and casting off confusing signals concerning the government's approach to equal opportunity. After Congress attained its Republican majority in November 1994, the Senate Majority Leader suggested that affirmative action clauses in federal programs should be repealed. Not long after that, the governor of the state of California decreed that state agencies should not practice affirmative action in hiring or contract law. There have also been efforts to end affirmative action in the California public university system. And in June of 1995, the U.S. Supreme Court made a ruling on an affirmative action program case that narrowed the latitude for employers and others to choose people with special attention to increasing the diversity of their work force. In its ruling, the Supreme Court said, "we hold today that all racial classifications . . . are constitutional only if they are narrowly tailored measures that further compelling government interests."

The attack on affirmative action has been based on the logic that the U.S. Constitution should be "colorblind" and therefore not make any special legal distinctions between races or cultures. In contrast, supporters of affirmative action have tended to argue that discrimination on the basis of race, ethnicity, and gender continues to take place, and that the country is still a long way indeed from ever being "colorblind" in its economic and social behavior. This dilemma between equal treatment under the law and affirmative action provides the backdrop for the American discussion of inclusivity in education and training. And that discussion will probably continue for many years to come.

Despite some similar legal and political controversies about discrimination, European nations have tended to take a less aggressive, less statutory approach to equal opportunity than the United States. This is true especially with respect to *racial* inclusivity. Whereas the United States has had federal laws combating racial discrimination for years, most European nations have only banned employment discrimination based on gender. Only Britain has extended that policy to race (Stevenson, 1995).

The EU also has been wrestling with affirmative action in its policies. In October 1995, the European Court of Justice, which applies the European Union's legal directives to cases in individual member states, ruled that an affirmative action program for women in Bremen, Germany, exceeded the EU's 1976 directive requiring equal treatment for women in employment.

For remedies to discrimination, most members of the European Community have preferred to emphasize education and training programs for women and minorities rather than hiring quotas or strict monitoring of employers' compliance. As Gerhard Welbers recounts in his chapter, countries like Germany have been wrestling with how best to serve the disadvantaged in order to prevent them from being excluded from the system. They have devised programs that attempt to retain disadvantaged people within the system by combining education, training, job placement, guidance, and support. This approach to inclusivity has been a comprehensive one: Cologne, for example, has created a standing working group, called an Innovation Circle, to bring together representatives of many agencies and institutions that provide pieces of the support system for disadvantaged young people. Other EU member states--Britain, Spain, France, and Ireland--have been creating similar programs to retain disadvantaged students within their education and training systems. And two new EU education and training initiatives, SOCRATES and LEONARDO DA VINCI, provide European-wide emphasis on serving the disadvantaged within the member states' education and training systems.

Thus, education and training programs have been viewed as potent weapons for encouraging equality in both the U.S. and the EU. European educators face somewhat different challenges than their American counterparts. At

mid-decade, the American government's aggressive intervention in labor markets on behalf of women and ethnic minorities appears to have slowed down. The progress toward equal opportunity and inclusivity will now have to come more from the bottom, from the individual firm's recognition of the bottom-line appeal of inclusivity. And in Europe, where high unemployment and concerns about immigration have muted support for more aggressive affirmative action programs, particularly in employment policy, progress will also probably be slow and cautious.

For both countries, then, education and training policy will be a prime weapon in future progress toward an equal society.

Local Leadership and the Innovative Work Force

Policymakers on both sides of the Atlantic have recognized the importance of local leadership in achieving education and training reform. But effective local leadership cannot be decreed or legislated: Successful local leadership often exhibits qualities that defy codification or quantification. The chapters by Robert Poczik and Richard Walther examine this leadership issue from an American and a European perspective.

In many countries in the European Community, local leaders play a critical role in shaping and executing education policy. Businesspeople, union leaders, teachers, and others have been working together for years to agree on standards, curriculum, and the provision of training. Many of the relationships have been formalized and, in fact, represent statutory obligations.

Richard Walther taps into the European tradition of collectivism to draw a distinction between local leadership in the U.S. and in the EU. He notes that economic performance rests not just on the capacity of individuals, but also on the contributions of associations and groups acting together to achieve common ends. Walther sees cooperation among local partners as an essential part of European local leadership.

In the United States, where education policy is more decentralized, local leadership is the key to creating and implementing education policy in the community. As Robert Poczik notes in his chapter on the challenges to local leaders in developing school-to-work programs, the hallmark of many successful local programs is an exceptional local leader who possesses the vision and necessary skills. Charismatic leaders emerge--from government, from educational institutions, or business--and they lead their communities forward and initiate new education and training ventures. Together with parents and students, they create a contagious spirit of excitement and possibility. They form groups and consortia that work together, apply for funding and grants, and create new ways of preparing young people for working lives in their community.

This picture of local leadership, however, points up some of the key generalizations that can be made about the importance of local leadership to the reform of education and training in the United States. First, and perhaps foremost, education policy reform is incredibly labor intensive at the local level. The federal government generally does not dictate the way that education is structured and delivered at the local level, and they provide only a small fraction of the funding. Consequently, local areas have considerable autonomy in conducting education and training, especially in the emerging area of school-to-work. But along with the autonomy comes a heavy responsibility: Localities must construct school-to-work programs almost from the ground up, and cooperative structures among schools, colleges, and businesses must be forged one link at a time. Each firm must be recruited individually, and their level of interest and involvement must be teased out. There are few existing regulatory or curricular frameworks to serve as models.

While local leadership in the United States and Europe often possesses unique and undefinable characteristics that make for successful education policy reform, there are also economic and political forces that influence local actors' behavior. These include the strength of the local labor market, the political influence on the regulatory framework for education and training, and the influence of funding sources on local leaders. These forces provide some of the theoretical underpinnings for explaining the link between local leadership and creating an innovative work force.

Influences on Local Leadership

One of the central predictors of local leadership behavior is the condition of the local labor market. If the demand for labor is high, meaning that the local unemployment rate is low and workers do not have trouble finding jobs, then it is more likely that employers will be interested in participating in school-to-work programs and other training initiatives. They are anxious to recruit good workers and, if necessary, to help develop workers with the skills they need. Conversely, if the demand for labor is weak, in the sense that there are not many local employers looking for workers, or there is high unemployment, employers are less likely to be interested in initiating or participating in education and training programs. When the local economy is in trouble, the local government leaders and school officials may be anxious to lead a school-to-work educational initiative.

Politics also exert some predictable influences on local leadership. The political system establishes the regulatory framework under which education and training takes place. Those regulations provide a critical constraint on individual local officials' behavior and policymaking. Sometimes they even set performance standards that local officials must meet, or suffer the consequences. Electoral politics play a role, too. At election time, voters communicate the direction and intensity of their demands for educational services from government. Local elected officials must respond to those concerns or risk losing their jobs.

There is also the influence of money on local leadership. If the U.S. Congress or EU create a program with ample funding attached to it, state officials or member nations may be more likely to respond to the initiative and implement it locally. The more financially pressed a state is in the United States or the more strapped an EU member state, the more likely it will be that they will respond to the carrot dangled before them and change their training system to accomplish the U.S. or EU objectives.

As discussion at the San Diego conference indicated, however, local leadership cannot operate in a vacuum. The most successful examples of local leadership strike a balance between independence and interdependence with other levels of government. If local authorities can respond flexibly to the economic and political needs of their community, they can create education and training policies that serve local interests. At the same time, though, those authorities must work with upper tiers of government to help the nation respond to more global changes in demand for workers and for employers' goods and services. As nations' labor markets and product markets become more integrated, localities must exploit the economic information and funding that flow downward from the national, and in the case of the EU, supernational, levels of government.

Local Leadership in Practice

The American and European chapters on local leadership in this volume illustrate some of the themes developed above. Robert Poczik's chapter illustrates the American slant on local partnerships: They tend to arise from the ground up, and depend on the creativity and dedication of local people to make them work. Richard Walther's

chapter reflects the European tradition of greater central control in the direction of local education and training activities. In particular, Walther examines first how the EU, and then how various European countries' central governments, have tried to spur the development of self-acting local partnerships.

Looking forward into the future world of education and work in America, Poczik provides a challenging new vision for local leadership in reforming education and training for a changing world. He argues that the central challenge to local leadership is to help forge new partnerships that bridge the gap between education and work. Local leaders must create a "learning enterprise" that blurs the concepts of "school" and "work." Workers continuously learn while at work, and students become "learner-workers" who learn by leaving the confines of the school building and learning at work sites. Such an approach would require unprecedented levels of local cooperation among educators and employers. In contrast to past practice in the United States, all the concerned parties, including employers, educators, teachers' unions, parents, and students, would need to be involved at all stages. They would be involved in planning, curriculum development, and the setting of objectives.

Poczik also expresses some additional challenges for local leadership. Vocational and academic education need to be smoothly integrated. Different levels of education--for example, high school and college--need to be seamlessly connected in order to provide clear and coherent education pathways for young people. Local leaders must be able to work with other levels of government to accomplish national educational innovation.

Offering a European perspective, Richard Walther first examines two kinds of European-wide programs initiated by the European Union. The programs focus on setting up local partnerships and encouraging local leadership. The first type, run by the European Social Fund, is designed to spur economic development in declining industrial regions and poor rural areas. Training is stressed as an important key to economic development. The other type, called "community action programs" by Walther, include such EU initiatives as COMETT and FORCE. Both were designed by the EU to help encourage the formation of local partnerships to accomplish important training goals. The COMETT program connects universities and industries, using the vehicle of training to introduce the technologies developed in a research context to a commercial setting. The local partnerships formed to accomplish that goal are called "University Enterprise Training Partnerships." The FORCE Program set up consortia of firms to share training facilities and improve training of local workers. In this case, the resulting local partnerships are called "regional continuing training consortia." These consortia have helped to reinforce and expand existing regional partnerships in member states.

After a discussion of EU initiatives, Walther discusses three examples of local partnerships in individual member states. The first, the German "learning region," is an effort to tap the innovation potential of SMEs, and to improve economic development by improving the connections between companies, training providers, social partners, and the public authorities. The second, Britain's Training and Enterprise Councils, aims to bring together local employers, trainers, and local government in order to raise the quality and economic usefulness of training. Walther's final example concerns the Italian experience with "contractual entities." These agreements have led to the formation of local training partnerships distinguished by the active role played by trade unions.

Like the U.S., the EU is concerned that local partnerships have real economic value. Walther notes that in pursuit of that goal, the EU is looking for expertly conceived, market-sensitive training partnerships. The EU has stressed that these partnerships should also help to connect initial and further training. Since some of the partnership programs have been operating since the mid-1980s, the EU now has a body of experience from which to draw: Both COMETT and FORCE, for example, have spawned hundreds of local partnerships.

In this world of increasingly global competition, the ultimate test of these local partnerships' effectiveness is therefore an international one. Walther concludes his chapter with the observation that cross-national comparisons--such as the ones facilitated by the U.S.-EU conference in San Diego--provide an excellent opportunity to test the strengths and weaknesses of local partnerships in different countries.

Small- and Medium-Sized Enterprises in Europe and America

The final conference theme, small- and medium-sized enterprises (SMEs), is addressed in chapters by Diana Walter and Bernhard Buck. According to the popular press reports in both the U.S. and Europe, small business--and self-employment--are booming. They have been portrayed as the engines of economic growth, and commentators have argued that young people should be better prepared for a future of employment in small, flexible, ever-changing firms.

Despite all the popular discussion of the burgeoning small business sector, the data suggests a more cautious and complicated conclusion about the economic role of SMEs. The first step in analyzing the data is to look at levels or "stocks" of employees in small business and self-employment. While workers in small business and self-employment comprise a significant fraction of the labor force in both the United States and in European nations, the EU has a higher proportion of its labor force working in those categories than does the United States. According to 1990 Eurostat data, among European workers, 24.3 percent are in firms with less than ten employees, versus 12.0 percent of American workers. Another 9.1 percent of European workers work in slightly larger firms, with 10-19 employees, versus 8.0 percent of American workers.

The second step in analyzing the data is to focus on rates of change: If SMEs are indeed generating the bulk of new jobs in the economy, they should be a major focus of policymakers and educators' energies.

Recent analysis of American data by Davis, Haltiwanger, and Schuh (1993) suggests that the claims made about small business job creation are somewhat overstated: They represent a significant, though not especially fast-growing, source of jobs in the United States. They conclude that large firms create many more jobs than small business. This is because large firms provide the bulk of the job base. (A large fraction of American workers still work for large employers: 46.6 percent compared to Europe's 31.4 percent. [2]) But it is also due to the fact that while small firms have a high rate of job creation, they also have a high rate of job *destruction*, so that their "net" rate of job creation (i.e., the rate of job creation minus the rate of job destruction) is actually lower than large firms' net rate of job creation.

Davis et al.'s (1993) work has several qualifications, but, most importantly, it applies to the manufacturing sector only. Given that data shows that the American economy has been experiencing large "sectoral shifts" in jobs, away from sectors like manufacturing toward the service sector, conclusions based solely on manufacturing sector data understate the role of SMEs in the entire American economy.

Self-employment is also high in the United States and in Europe: In America, self-employment accounts for one out of every eleven workers (Bregger, 1996, p. 8). This is a decline from previous decades, but again, sectoral shifts explain much of the change: Self-employment in agriculture has declined precipitously, but it has increased slightly in other sectors. In EU member states it has increased from just over six percent to nine percent of the service sector jobs between 1979 and 1987. Furthermore, overall self-employment rose by around two percent a year from 1986 to 1990. However, between 1990 and 1994, self-employment fell about one percent a year. Eurostat attributes this to the improving labor market, which allowed people to move back into

waged employment (European Commission, 1995, pp. 166-167). They conclude that "It would appear from the evidence available that the trend towards self-employment, though small, is not a transitory phenomenon and is likely to continue."

So, while the share of workers in small business and self-employment in the overall economies of the United States and Europe has been relatively stable over the years, this aggregate stability masks tremendous changes in particular industrial sectors. Since many of the fast-growing sectors (such as the service sector) are populated by many SMEs, the need to reform the curriculum and delivery mechanisms for school-to-work is a pressing concern.

The Educational Challenge Posed by SMEs

Small businesses present many challenges to educators, both in the United States and in Europe. A common concern for education policymakers in the U.S. and Europe is how to prepare young people for jobs in SMEs. One of the most daunting tasks for policymakers is how to engage SMEs in the education and training enterprise. To develop a truly successful school-to-work program, small business involvement must be encouraged, accommodated, and deepened.

As Diana Walter points out in her chapter, small businesses in the United States have a long list of reasons for not participating in school-to-work programs: They may not be able to afford to finance training positions, may be wary of government intervention and paperwork, may have a narrower range of skills to teach, and may not be able to spare workers to serve as supervisors and mentors.

Educators have an equally long list of reasons for favoring large over small employers in recruiting school-to-work partners: If schools work with SMEs, it is hard to "go to scale," to place more than one or two students in any one place, to provide effective educational supervision across many small sites, and to assure that students are exposed to a wide spectrum of jobs.

In her chapter, Walter discusses some strategies that her region has used to increase SME participation in school-to-work programs: consortia of small businesses, information dissemination via community organizations, and "peer pressure" on small employers to participate (from small and large local employers). She also cites the importance of streamlining the rules and paperwork for participation, and agreeing to have students perform meaningful work for the employer during their placement.

The European challenge with respect to SMEs is somewhat different than the U.S., a point Bernhard Buck makes in his chapter on SMEs and the German system of vocational education and training (VET). Given the already existing structures of work-based learning in Germany, the challenge rests less in creating new work-based learning programs for SMEs than in adapting the existing VET structures to serve the different needs of smaller employers. In Germany, the VET system was developed to train people for rationalized "production," typically in large industrial firms. Now, however, German employers face very different demands. Production must be more tailored to the needs of the customer, and it depends on the individual worker being able to adapt to changing situations.

SMEs have been at the forefront of this move towards adaptation and specialized production. As SMEs have increased in importance within the German economy, Buck questions whether the existing VET system can meet their needs. He also asks how SMEs can help influence the evolution of the VET system to satisfy their

wider and varying skill requirements.

Unfortunately, as Buck points out, the VET system has remained very traditional and, in some areas, it persists in preparing young people for working situations that no longer exist. The result has been a rising level of unemployment for school completers in the trades, and a migration of young people out of the VET system into higher education. Buck outlines a possible survival strategy for VET: Emphasize the quality of VET, and integrate initial preparation with "further" VET for lifelong learning. Buck also advocates adjusting the curriculum to provide broader training, and instilling new skills appropriate for SMEs such as the "situation-oriented ability to act."

While the more active participation of SMEs in VET would be beneficial, the author identifies one of the same impediments that Walter cites in her chapter--the perception among SMEs, perhaps inaccurate, of the expense of providing workplace training. He also cites one of the same remedies--peer pressure from large firms who are already convinced of the effectiveness of workplace training and VET.

As both Walter and Buck point out, SMEs hold great potential for providing the necessary "quantity and diversity" of work-based learning experiences, and for contributing to the economic development of their community. But there are no quick fixes. The simultaneous task of involving SMEs in work-based learning, while at the same time learning the lessons of flexibility and adaptation from them, is one of the major educational challenges in the U.S. and Europe.

4. Conclusion

As a group, the chapters in this volume do not provide definitive answers to the knotty problem of reforming education and training to respond to changing global economic demands. However, they do give us glimpses into how the U.S. and European nations are addressing some of their greatest challenges. They also provide some insight into possible future policy directions.

The recognition that every young person needs to be equipped for a high-skill economy has directed these nations toward inclusivity in their education and training systems. The road is bumpy, but the need is great.

The complex ballet of local leadership and central direction is common to both sides of the Atlantic, with recognition that future economic trends will force an even greater test of local leadership's mettle and flexibility.

And finally, the challenge of bringing the dynamic SME sector into the curriculum, into the classroom, and into the *system* has developed into a shared educational emphasis for the U.S. and the EU.

Thus, the U.S. and EU emerge from this examination of each other's practices with a greater awareness of the common goals--and obstacles--they face in the years ahead. They will enter the next stage of cooperation with greater knowledge and understanding and, thanks to the memorable San Diego conference and site visit, with greater enthusiasm.

Endnotes

1 See *EC/U.S. Conference Proceedings: Schools and Industry: Partners for Quality Education*, Nuffice, The Hague, The Netherlands, 1994, for a record of those proceedings.

2 Eurostat. (1995). *Enterprises in Europe* (Descriptive Analysis), *Third Report*. This Europe vs. United States breakdown by enterprise excludes class 0 (self-employed workers), though the country-by-country comparisons do include them.

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Chapter 2
Education and Training for an Innovative Work Force: European Union Initiatives

Tom O'Dwyer*

1. Introduction

The San Diego seminar on vocational training represents a conversation in a continuing policy dialogue between the European Community and the United States of America. It followed a similar conference hosted in June 1992 by the European Commission in Noordwijk, the Netherlands. As part of its commitment to improving the quality of education and training in its member states, the European Commission recognizes the value of sharing experiences with trading partners such as the United States. The reasons for engaging in external cooperation in education and training were first expressed in the Transatlantic Declaration, signed in November 1990, by the European Community and the United States:

Their determination further to strengthen their partnership in order to . . . pursue policies aimed at achieving a sound world economy marked by sustained economic growth with low inflation, a high level of employment, equitable social conditions, in a framework of international stability. The Declaration went on to state that The partnership . . . will be based on continuous efforts to strengthen mutual cooperation in various . . . fields which directly affect the present and future well-being of their citizens, as well as in education and culture, including

academic and youth exchanges.

Since the Noordwijk conference, a number of key developments have taken place within the European Community which have a direct bearing on the issues discussed at the San Diego conference and in this volume. This chapter outlines these developments in order to provide a framework of reference for the more detailed contributions on the European side in this volume.

Of the developments covered in this chapter, two are pivotal, providing the power to act and the rationale for the action to be taken. The first of these is the Maastricht Treaty, which gives the European Community wider prerogative to undertake education and training actions. The second is the White Paper entitled *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century*, which, by indicating the central role education and training can play in stimulating economic growth, provides the impetus for the European Community's recent actions.

2. The Maastricht Treaty

The Objectives of Maastricht

The Treaty of European Union was signed by the heads of member states on February 7, 1992, in Maastricht, The Netherlands, and is thus popularly referred to as the Maastricht Treaty. This treaty provides a new legal basis for the European Community and contains two new Articles, 126 and 127. These articles set out the objectives and the respective responsibilities of the individual member states *vis à vis* the European Community as a whole, for action in the area of education (Article 126) and training (Article 127). With these two articles, the European Community has taken a major step in confirming the important role of training and, for the first time, of education as a European Community competence.

In education, the role of the European Community is to "contribute to the development of quality education by encouraging cooperation between the Member States," while for training, "the Community shall implement a vocational training policy." Both articles give the European Community power to introduce measures which "support and supplement the action of the Member States while fully respecting the responsibility of the Member States for the content and organization as well as for cultural and linguistic diversity." In addition, for both education and for training, the treaty states that, "The Community and the Member States shall foster cooperation with third countries and the competent international organizations . . . ." It is particularly gratifying to have this solid legal basis, and one which so clearly defines objectives and responsibilities. The objectives of European Community action in training are fivefold:

9. "facilitate adaptation to industrial changes, in particular through vocational training and retraining

10. improve initial and continuing vocational training in order to facilitate vocational integration and reintegration into the labour market

11. facilitate access to vocational training and encourage mobility of instructors and trainees and particularly young people

12. stimulate cooperation on training between educational or training establishments and firms

13. develop exchanges of information and experience on issues common to the training systems of the Member States"

From Objectives to Practice

The objectives of European Community action in education and in training are promoted by specific action programs which encourage transnational cooperation and mobility through the development of joint projects and forums. These provide opportunities for exchange of information on best practice. The European Community aims to blend and adapt the best institutional, organizational, and cultural structures, while respecting the unique character of each country's and region's traditions and culture.

The area of mobility illustrates the success which these European Community programs have already achieved. An estimated eight percent of all European third-level students now spend a semester or more in another member state institution, for which they receive full academic recognition from their home university. [1] This mobility has taken place within the framework of the higher education programs, ERASMUS (European Community Action Scheme for the Mobility of University Students) for academic cooperation or COMETT (cooperation program between universities and enterprises for education and training for technology) for cooperation in training. Thanks to programs such as ERASMUS and COMETT, EU is not just a customs union, but is becoming a real community of neighbouring nations. In this European Community, not just goods and services, and capital and labour, circulate freely, but ideas and culture do, too.

3. Growth, Competitiveness, and Employment

The White Paper

The second pivotal development is the White Paper, which is entitled *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century*. The European Commission presented it to the member states' heads of government near the end of 1993. The White Paper focuses mainly on how quality, long-term employment could be promoted in Europe as those nations approach the 21st century. The White Paper's principal objective is to achieve as profound an impact on the long-term growth prospects of the European Community as the targets of the 1992 Internal Market Program had in the 1980s.

The challenges addressed by the White Paper--those of employment creation and social inclusion, and of a flexible, decentralized economy characterized by solidarity--are not sought through some simple miracle solution. Rather, the White Paper suggests a series of policies and concrete actions aimed at restoring relative competitiveness. It emphasizes the key role that education and training could play in the creation of quality employment. Elements of reform are identified and actions at both member state and European Community levels are proposed.

The Communication to Council

Following the White Paper and the ensuing public discussion, the Directorate Generale (DG) XXII has drafted a Communication to the Council of Ministers of the European Union based on two main policy axes. First, the document recommends adapting the education and training systems, especially by improving continuing adult training. Second, it addresses the basic training of young people, including specific measures regarding those

young people who leave the education system without any qualification. The Communication also develops a new approach to the concept of lifelong learning, as proposed in the White Paper.

If implemented, the recommendations in the White Paper and the Communication should direct the European Community toward a model of economic development which breaks with the recent phenomenon of economic growth without the corresponding growth in employment--and the subsequent unacceptable levels of social exclusion through unemployment.

4. European Community Actions in Education and Training

The European Community has expanded to include new members: Austria, Finland, and, most recently, Sweden (in 1995), which more than doubles the family from the original six members. In contrast, the European Community Education and Training Programs have evolved in the opposite direction, reducing in number although increasing in scope.

The Development of European Community Education and Training Programs

Over the years, as the need for action in each particular area was perceived, the European Community has introduced a variety of specific programs such as ERASMUS for academic cooperation, PETRA and FORCE for initial and ongoing vocational training respectively, COMETT for training in technology, and LINGUA for language training. In 1993, Professor Antonio Ruberti, [2] the member of the European Commission responsible for Education and Training as well as for Science and Technology, took advantage of the fact that the existing programs were due to come to a close at the end of 1994.

By redesigning the various activities they contained, conserving the best elements, and introducing new activities based on the two criteria of innovation and quality, the European Community has regrouped the existing programs into two new, all-embracing programs. Both were introduced in 1995. SOCRATES provides for cooperation in all areas of education. LEONARDO DA VINCI covers all aspects of training: initial, ongoing, and preparation for technology.

The SOCRATES Program

As well as extending the higher education activities that ERASMUS provides, SOCRATES also aims to bring a European dimension to school-level education. In this case, the size of the potential target audience--300,000 schools, four million teachers, and 70 million pupils--is such that the program emphasizes activities like facilitating cooperation between schools. The program also seeks to enhance the skills of teaching and counselling staff. In addition, it makes specific provisions for the schooling of children of migrant workers and itinerants.

Of course, the two new "framework" programs share areas of common concern such as language instruction and Open and Distance learning. These shared interests will act as bridges linking their activities. A third program, YOUTH FOR EUROPE III, covers the area of youth, encouraging an active sense of European citizenship among young Europeans.

These new programs will continue to combine mobility with other cooperative activities designed to achieve a systemic, long-term effect. For example, the mobility of academic staff and students, which, in ERASMUS,

served as the main transmission channel for best practice, is reinforced in SOCRATES by new thematic networks. These pedagogic forums will build on the academic networks which have grown through the present ERASMUS. These networks have proved to be an ideal vehicle for developing grassroots links among individual academics across frontiers.

In parallel, the new Institutional Contract will embed the cooperative activities of the individual academics more firmly into the overall strategies of their institutions. This goal will be accomplished by encouraging each higher education institution to develop a coherent European policy, and to implement the strategies and the supporting structures to accomplish these aims.

The LEONARDO DA VINCI Program

With regard to training, the LEONARDO DA VINCI Program outlines a common framework of objectives that should promote the natural complementarity between member states' policies and EU actions. The two main strands of measures to be undertaken are those which sustain the quality of member states' systems and those which promote the innovative capacity of the training market. LEONARDO DA VINCI will not only promote innovative actions across the board, but one of its main lines of action will be to encourage enterprises to take the initiative in cooperating with higher education institutions for training at all stages and levels of the introduction of new technology.

Particular attention will also be paid to the role of the social partners, especially in the field of continuing training. The EU will help develop a support system to assist their dialogue and joint actions. The aim is to raise the quality of its relations with the labor and management sides of industry, and to promote a closer involvement of enterprises and unions in the development of training.

The European Year of Lifelong Learning

But the European Community does not intend only to change systems: It hopes to change attitudes, too, by emphasizing learning rather than teaching. The individual must assume responsibility and take the initiative in determining his or her own schedule for lifelong learning. However, to change attitudes, the European Community has to reach a wide public. With this in mind, the European Commission proposed that 1996 should be declared the "European Year of Lifelong Learning." The emphasis in this year is on communication.

Based as much as possible on practical experience, the European Community will highlight how individuals can use education and training to take control of their lives, both by improving their employment prospects and, more generally, by promoting their own personal development. The European Year will also deal with the following aspects of lifelong learning:

- The links between education and training and the business community, especially smaller firms where the difficulties of access to further training are often greatest.
- Education and training for equal opportunities, especially between women and men.
- The promotion of greater mobility in a European Union where systems are essentially national. If the right of free movement is to become a practical reality, the mutual recognition of qualifications has to extend beyond a strict legal minimum.

5. Cooperation with Other Countries

While the main focus of DG XXII's activities is the encouragement of intra-European Community cooperation in education and training, the DG has built up considerable *acquis* [3], as the French aptly name it, in the area of transnational education and training cooperation. This experience can be shared with other countries. The objective of this can be, as in the case of the United States, to bring balanced benefits to both parties. Or, with respect to less-developed countries, the goal can be to provide a powerful instrument for stimulating their economic and social regeneration.

Although many countries undertaking political and economic reform are preoccupied with physical capital, technology, and infrastructural investment, the most vital need is usually for the creation of new civic and institutional structures. One can provide lavish funding to encourage the creation of new enterprises, but if the legal structures are not in place, the donated aid can disappear into an economic black hole. The creation of new institutional and civil structures are facilitated first and foremost by the transfer of know-how and experience, and by the introduction of new courses and curricula in schools and colleges. Education and training are the primary sources of enhanced competitiveness and quality job creation in less-advanced economies and regions: They play a vital role in changing attitudes and consolidating democratic values in societies shaking off the shackles of authoritarian rule.

The newly democratizing countries of Eastern and Central Europe, Russia, and the NIS (Newly Independent States) are a case in point. The TEMPUS Program (Trans European Mobility Scheme for University Studies) has brought together academics from these countries and the European Community, for the purpose of updating their higher education provision.

The European Training Foundation

In September 1994, the Council of Education ministers of the European Union held its first, albeit informal meeting, outside European Community territory: in St. Petersburg, at the invitation of the Russian minister. Following the decision of the EU's Council of Ministers, the European Training Foundation has now been established in Turin. The foundation was originally set up to support the European Community's neighbouring countries in Central and Eastern Europe, and to help develop vocational training systems in the NIS and Mongolia. To give some idea of the reach of the foundation's present activities, it is interesting to note that the Advisory Forum of the foundation has two representatives from forty countries, covering eleven time zones, as well as representatives of international organizations.

In addition to these training responsibilities, the foundation has taken over the task of providing technical assistance to the European Commission in its management of the TEMPUS Program. The establishment of the foundation should ensure that education and training continue to occupy a high profile position at the top of the political agenda. In the future, this commitment should translate into concrete activities providing the basis for political and economic change.

Regarding other global regions, the assistance offered to the ACP (African Caribbean Pacific) group by the EU is the most substantial of any such international aid program. Overall, the European Union is spending many hundreds of millions of ECUs (European Currency Units) in promoting training in a wide range of developing countries. The expertise of DG XXII is being increasingly called upon to help advise and design initiatives. For example, DG XXII participated in the programming mission of the EU to South Africa following the election of

the first government based on universal franchise.

In addition to closer collaboration within the EU services, colleagues in the DG XXII of the EU have recently taken steps to ensure a closer liaison between the actions of the individual member states and EU-level action.

Cooperation with the United States

Turning to developments since the Noordwijk conference, projects have taken on a concrete form. In the spring of 1993, Commissioner Ruberti and Secretary for Education Riley announced the launching of exploratory cooperation in the area of higher education. By September of that year, 23 joint EC/U.S. projects involving some 200 faculty on both sides of the ocean had been selected from over 240 proposals in five academic areas, including the environment and natural sciences.

Preliminary reviews of these projects indicate that this innovative form of multilateral cooperation, each involving partners in a number of European countries and American states, is especially useful at encouraging certain pedagogic innovations. The most successful examples have been in multidisciplinary studies where the frontiers of knowledge are advancing, and where regional institutions less used to international collaboration have been involved. Although it is too early yet for definitive data, the DG estimates that in the 1995-1996 academic year some 250 European students will have travelled to partner institutions in the United States, and a similar number of American students will have travelled to Europe.

The projects' underlying philosophy is that those students should integrate themselves both academically and culturally in the normal life of the host institutions, undertaking intensive language preparation where necessary, and benefiting from full academic recognition for the study period in the overseas establishment. However, the European Community's experience with the European Economic Area and in Central and Eastern Europe suggests that, while student mobility may be an important objective, the most valuable form of international collaboration lies in the construction of networks which pursue a variety of innovative pedagogic means to improve educational quality. In order to put this experimental action on a more secure legal basis, in November 1994, the European Commission was given a mandate to negotiate an agreement for cooperation with the U.S. in the area of education and vocational education and training. A draft agreement has now been submitted on the European side to the Council of Ministers and the European Parliament for their approval.

6. Conclusion

The purpose of this recital of recent EU initiatives is not simply to provide an update of the developments since Noordwijk, but to illustrate concretely how much Europe and the United States share the same concerns and objectives. Many regions in Europe and the U.S. are experiencing high levels of structural unemployment due to global competition in areas of traditional competitiveness and the rapid rate of technology diffusion--especially the pervasive effects of that technology whose locus is in a valley not too far from San Diego.

Both Europe and the United States share the concern for those not best served by the system, be it due to gender, race, family fortune, or personal capacity. Europeans tend to believe that access to gainful employment is a fundamental human right. Americans may call it inclusivity, whereas Europeans tend to call it solidarity or social inclusion.

Local leadership is also a shared concern in Europe and the United States. Local educators, employers, and

public officials must now play a key role in ensuring an equilibrated supply and demand for skills and qualifications in their communities.

Small- and medium-sized enterprises (SMEs), the major source of employment both in Europe and the U.S., play a major role in providing jobs. (European statistics compiled by Eurostat suggest that some 70 percent of employment in Europe is created in such SMEs.) As such, SMEs have aroused policy interest in the European Community and in America. The European Community's concern is obviously to promote those SMEs which process *knowledge*: These are, again, the main source of quality employment with high value added. On both sides of the Atlantic, policymakers appreciate the importance of investment--not just in physical capital, but as a generator of employment. It is the *intangible capital* of human resourcefulness which is fostered by high-quality education and training.

Finally, both the EU and U.S. emphasize the fundamental importance of "learning"--meaning a lifelong process where individuals take more responsibility for equipping themselves with the skills of the future. They can then reap the creativity and independence of spirit that comes with such knowledge.

Endnotes

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1 This is calculated on the basis of data provided by member states concerning the total number of students in higher education, together with the annual data on the total number of mobile students supported by each European Community program.

2 Depending on its relative size, each member state proposes the names of one or two Commissioners who each take responsibility for an area (or areas) of European Community competence. The College of Commissioners is headed by its President, currently Mr. Jaques Santer, who is elected by the member states. The European Commission as a whole must be approved by the European Parliament before taking up office for five years.

3 *Aquis* denotes the accumulated experience and practice of the European Community expressed, for example, through its legislation and programs.

Section II

New Visions
American Initiatives:

A Case Study

Chapter 3
New Visions for Education and Work Force Training Policy in the United States

Augusta Souza Kappner*

1. Introduction

In November 1994, delegates traveled to San Diego, California, to attend the second United States-European Union Joint Conference. They came from across the United States, Western Europe, Mexico, and South America. The conference theme was "New Visions: Education and Training for an Innovative Work Force." The intent of the U.S. Department of Education in hosting this Conference was for participants from both sides of the Atlantic to share experiences and policies on how governments, employers, and educators were working together to better prepare youth for the challenges of global economy. We also wanted to provide a forum to explore areas for further collaboration.

Our hope was that through a comparative perspective--with participants from so many different countries, and from the education, business, labor, and government communities within those countries--we would have a greatly enriched discussion. We realized that for our respective nations to be truly successful in educating and training an innovative work force, we would have to draw on such diverse visions.

This chapter begins by examining the context in which this meeting took place. It then explores what we meant by "Education and Training for an Innovative Work Force" and why this theme was particularly important for the United States at this time in its political and educational history. The chapter will conclude with a discussion of America's "New Visions" for education and training.

The Context of the U.S.-EU Conference

In recent years, the United States has become increasingly concerned about the quality of its education and training system. When, in November 1990, the Transatlantic Declaration on relations between the United States and the European Community was signed, a new partnership was created that allowed us to expand our dialogue on the challenges we faced. It was stated in that declaration that the purpose of the U.S.-EU partnership would be "to strengthen mutual cooperation in various fields which directly affect the present and future well-being of their citizens."

A working group was set up with the objective of increasing the mutual understanding of the United States and

the EU in activities related to higher education and vocational education and training. The first meeting to exchange ideas and experiences on work force preparation was held in The Netherlands over three years ago. The focus of that meeting was "Schools and Industry: Partners for a Quality Education."

In the years since the Transatlantic Declaration was signed, the focus on work force training and education has intensified. All of our economies have faced unparalleled challenges in the face of global economic competition. With such daunting challenges, we all share concerns over unemployment, job creation, wages, and productivity. We all seek solutions. And, we can all learn from each other.

In May 1994, U.S. Secretary of Education Riley met with Secretary General Ruberti of the EU and agreed to hold a second conference to further the exchange of ideas on work force preparation. Central to all of these discussions were questions about the adequacy of our education and training systems in relation to the new demands of the global economy. This second U.S.-EU Conference, with its theme of "New Visions," was an opportunity for us to further discuss how our education and training systems are structured to respond to ever-changing economic challenges.

2. New Visions: An Innovative Work Force

What do we mean by an innovative work force? What is our American vision? Why do we need a new vision? And why are these themes important to us here in the United States?

I see new visions as the changes--the new paradigms--that are revolutionizing our education and training systems. In the U.S., we are making these important changes because our past educational models are no longer sufficient to equip today's workers with the education and skills they need to prosper in an information-based, global economy.

Today, competitive advantage is afforded companies that offer high-quality, individually tailored products and services. Delivering such tailored products requires flexible modes of production, a highly trained and skilled frontline labor force, and workers trained very differently than in the past. These challenges force us to rethink how we educate our students for the future workplace.

In 1994, just before the conference, *Fortune Magazine* had a very provocative photo and headline for their cover story. The headline read, "The End of the Job." In the cover story, the job was discussed as an artifact of the time of mass production in which job holders followed orders and performed repetitive tasks. The article also highlighted how the job-creating and fast-moving organizations of the present were replacing the old bureaucratic dinosaurs of the past. The new, fast-moving organizations hire individuals with a package of capabilities. They are, in short, workers who can innovate.

In reality, the American and European economies are clearly not at the point the article portrays--we all know jobs are still around--but it is quite clear that workers need different skills than in the past. The question is, what core skills does a worker need to be innovative in an evolving workplace and a labor market characterized by churning dislocation?

Educating for Innovation

Innovative workers need to read, write, and compute with competence. Innovative workers need to adapt to

change, solve problems, and set goals. Innovative workers need to be able to communicate effectively and work in teams. Perhaps, most importantly, innovative workers need to be able to learn continuously.

In the U.S., we have spent a great deal of time searching for the best way to equip workers with these skills. For example, at the Saturn automobile plant in Tennessee, I spoke with the Chief Executive Officer, who emphasized the necessity of changing the culture in their company to move towards having the type of work force I have been discussing.

At our most recent conference in Europe, we focused on the differences and similarities between the American and European approaches to involving industry as full partners. We in the U.S. had learned much from studying European models of education and training. We were just beginning to implement uniquely American strategies such as Tech Prep and starting to expand youth apprenticeship. The meeting then provided us with an excellent opportunity to further explore the transferability of models and best practices.

Many of the questions and concerns discussed at the 1992 Conference remained pressing topics of concern when we met in San Diego. In organizing the San Diego Conference, the following three promising avenues were identified as the focus for discussion on enhancing the development of the work force through education reform: (1) the importance of local leadership, (2) the enhancement of innovation by leveraging the creativity of human diversity, and (3) the service to and involvement of small- and medium-sized enterprises. We enlisted a host of policy experts to address how various countries were attempting to enhance work force development through such strategies.

3. New Visions in the United States

The changing political environment in the United States has led to an active but volatile process of educational policy formation. However, given the demands of the information economy, we know that a lifelong approach to learning will be the constant.

With the election of President Clinton in 1992, the federal government began approaching our education and training challenges in a systematic fashion, from preschool to adulthood. The Clinton Administration began a number of initiatives to turn a work force development vision into a reality.

Early Childhood Programs

First, we increased funding for our preschool intervention program, Head Start, by over half a billion dollars to cover an additional 100,000 students. We initiated a nationwide campaign calling for greater family involvement in our children's learning. This campaign involves encouraging schools, businesses, and communities to establish a supportive environment for family involvement in education. It also provides useful information to parents on how they can shape their children's educational development.

Improving Schools

Through the funds and support to the local and state levels provided by Goals 2000: Educate America Act, we are encouraging the development of occupational and academic skill standards for all our students. We want to make certain that they have the knowledge and skills they need to succeed. Goals 2000 also provides federal support to schools to meet these new standards. This support takes the form of information on models of

excellence, support for teacher development, and help to use technology better. All are elements we know lead to effective schools.

Skill Standards

Occupational skill standards are extremely important to our new vision of education and training in America, and the federal government has played an important role in their development. An essential part of this effort is identifying the skills needed by American workers. Equally important is establishing how those skills would be performed for American workers to be the best in the world.

We recently completed twenty-two pilot projects sponsored by the U.S. Departments of Education and Labor to develop voluntary skill standards for various industries. The projects were only the beginning. Goals 2000 authorized the creation of a National Skill Standards Board to improve the connection between the skills needed in the workplace and skills gained through education and training.

The National Skill Standards Board is a non-federal entity composed of 24 leaders from business, education, and labor--with twelve appointed by the President and twelve named by Congress. The board is responsible for identifying broad clusters of major occupations in which common skill standards can be developed among voluntary partnerships of business, labor, and education. The Board is authorized to endorse those skill standards that meet certain prescribed criteria.

It is important to note that both the occupational and academic skill standards would be voluntary. Unlike many countries with a centralized education system, in the United States, education is mainly a local and state affair. The U.S. Secretary of Education, Richard Riley, however, likes to say that although education is a local and state responsibility, it is a national priority.

Both of these efforts are excellent examples of the federal government serving as the catalyst and facilitator for positive change in an area that is truly a national priority. These efforts are also an example of a productive partnership between government and industry. By bringing together all the relevant players at the national level, we provide the localities and states with a powerful tool for benchmarking their own standards.

Without these standards, we were like an archer shooting into the sky: aiming nowhere and hitting nothing in particular. Now we have a target--if not a bull's-eye--to help focus our education and training efforts.

Enhancing Access to Higher Education

On another front, we are also expanding options to make higher education more accessible to more students. We see improving access to higher education as critical to assisting Americans in gaining the education and skills more and more in demand in our economy.

The Corporation for National Service was set up in 1994 to allow students to work on pressing community needs while receiving credit towards college tuition or forgiveness of loans borrowed in college. For others, the new Direct Loan Program is helping those at the beginning of their careers set up Individual Education Accounts to pay for college. Students will be able to borrow money for university education and choose a variety of options for repayment, depending on their financial situation.

Federal School-to-Work Legislation

In spring 1994, President Clinton signed into law the School-to-Work Opportunities (STWO) Act. Under the authority of this act, we are using federal venture capital to serve as a catalyst for the formation of a national network of local and state school-to-work systems.

The STWO Act is a joint venture among communities, states, and the U.S. Departments of Education and Labor. This initiative provides a national framework to expand the educational, career, and economic opportunities of all youth. It involves new partnerships between businesses, schools, community-based organizations, and local and state governments.

The STWO Act involves significant changes in the way teachers teach and the way students learns. It includes the following components:

- A planned program of training and work experiences coordinated with rigorous, school-based learning to better accomplish this important goal
- A program of instruction and curriculum that integrates vocational and academic learning
- A program of study to meet the requirements necessary to prepare a student for postsecondary education and achievement of a skills certificate
- Broad instruction in the classroom and workplace that, to the extent practicable, exposes students to all aspects of an industry
- Career awareness, exploration, and counseling
- Workplace mentoring
- Assistance for students in finding jobs and continuing their education and training

This represents a major departure from past American practice. We have been influenced by the European apprenticeship models, but we have also developed an approach to meet uniquely American needs, and those of the evolving workplace. It is important to note that the STWO initiative is not a federally run program but an approach to reforming education that is being put in place at the local and state levels.

Federal venture capital is being used by communities and states to plan and implement changes that meet their unique needs. We also see an important federal government role as that of facilitating communication between various parties. We are assisting communities and states to come together to learn about best practices--learning about what is, and what is not, working.

In December 1994, President Clinton and thirteen heads of large corporations announced the creation of the School-to-Work Opportunities National Employer Leadership Council. Members of Fortune 500 and small businesses are represented. Ford Motor Company CEO, Alex Trotman, has served as the chair. Members of the Council are charged with implementing school-to-work programs throughout their companies and encouraging their suppliers and other companies to participate.

New Policy Climate, New Visions

Finally, we are also conducting an intensive review of our vocational, adult education, and worker training programs with the goal of creating a more coherent and outcomes-driven system. This review is important as we reauthorize the two major pieces of federal legislation governing both vocational and adult education. This opportunity occurs once every five years and it forces us to act. It is an event which adds a greater sense of urgency to our need to formulate new visions.

In the aftermath of the November 1994 Congressional elections, the policy climate changed dramatically. It triggered great activity in education legislation. Both Houses of Congress now have Republican majorities where there had heretofore been Democratic majorities working with a Democratic President.

Several times over the past few years, both houses of Congress have made radical proposals to reduce the size of government dramatically, or even to eliminate the U.S. Department of Education. Even though those proposals failed, more moderate pieces of legislation have passed, leading to modest reductions in the size of the federal government, expanded roles for states, and changes in funding.

4. Conclusion

The goals of the San Diego Conference were clear. We wanted to create an environment in which an exchange of information about new innovations in work force development could be shared. It was hoped that we would all arrive at a better understanding of the similarities and differences in our approaches and the extent to which aspects of them were transferable. We wanted to provide a forum for discussing and debating issues of mutual concern and to stimulate communication among policymakers from diverse sectors and countries.

I think we succeeded. Through the field trips, plenary sessions, and working groups, we indeed learned from each other. We engaged in a productive dialogue. We shared our opinions and our visions. We even explored how we could accomplish these mutual visions.

Since the Conference, the United States and the European Union signed a Memorandum of Understanding establishing a more solid foundation for cooperation in higher education and vocational training. The concrete result of this memorandum, a grants program for joint U.S.-EU consortia cooperating in exchanges in higher education and vocational training, will begin making its awards in 1996. The U.S. and EU have discussed a third conference, and we are exploring avenues to further the exchange of information.

The participants in this conference came together in a spirit of cooperation. While our government structures and histories are different, we all share a common concern for the present and future well-being of our citizens. We all seek new visions on how to better educate and train for an innovative work force. Hopefully, having shared our visions together will help us to better accomplish this important goal.

* Assistant Secretary of Vocational and Adult Education, U.S. Department of Education, at the time of the San Diego conference, November 1994

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Chapter 4
Building a School-to-Work System in the United States

Winifred I. Warnat*

1. Introduction

School-to-Work Reform in the 1990s

The 1990s have marked a period of major reform for vocational-technical education in the United States. It has been a time for finding new ways to prepare young people to enter the work force, and for establishing new visions of reform. The reform was heralded by federal legislation beginning with the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (Perkins), followed by the School-to-Work Opportunities (STWO) Act of 1994, and now, the planned reauthorization of the Perkins Act in 1996.

Driven by an expanding global economy challenging U.S. competitiveness, and by the shortage of an adequately skilled work force responsive to advancing technology, work force preparation is a national priority for the first time in U.S. history. Several issues have been central to the debate over reform: providing opportunities and access for all youth; strengthening local leadership; and building partnerships with employers, especially small- and mid-sized firms. It is no longer enough to instill skills in the working population. Now, the education and training system must help individuals and firms become more flexible and innovative in the face of monumental economic change. The population most affected by these reform efforts are 15- to 24-year-olds, making the reform of that level of education and training especially critical.

The purpose of this chapter is to describe the reform movement in the United States as the nation strives to build a new, national school-to-work system. Those efforts, some quite visionary, are contributing to the evolution of an innovative work force.

It is important to note that in the United States, the scope of systemic reform efforts are national, not federal: Each of the 50 states designs its own system. Each state system, uniquely designed to accommodate the particular needs of that state, can be viewed as a subsystem of the "national school-to-work system." All state school-to-work systems share common components with variations on how they are configured and implemented.

The Recent History of Reform

The United States has been aggressively involved in education reform since 1983, when the report *A Nation at Risk* (National Commission on Excellence in Education, 1983) was issued. That report focused on the need for

reform in elementary and secondary education. By the late 1980s, the issue of how to reform the preparation of young adults for work began receiving increased attention. In 1989, the governors of all 50 states came to an agreement on six national education goals. One of those goals focused attention on the need for a literate and high-skilled work force. In 1990, another significant report, *America's Choice: High Skills or Low Wages!* (Commission on the Skills of the American Workforce, 1990), presented a schema for reform in work force preparation that centered on skill standards and the attainment of a certificate of mastery. In 1991, the report of the Secretary's Commission on Achieving Necessary Skills, *What Work Requires of Schools,* known as the SCANS report, laid out those skills considered essential to a technologically competent, globally competitive work force. Then, in 1992, with the advent of the Clinton Administration, education and training for work was identified as a national priority.

Unique to school-to-work reform in the early 1990s was its being driven largely by federal legislation. Four legislative authorities in particular shaped this reform in the United States.

The Perkins Act took a dramatic shift in 1990 from being concentrated on special populations to an emphasis on program innovation and improvement, with attention now on education reform and systemic change. The STWO Act stresses building a new delivery system and highlights the essential components of a quality school-to-work program. The Perkins reauthorization is taking further the combination of systemic reform and program improvement. Providing the framework for these reform efforts is the Goals 2000: Educate America Act that is reshaping how we educate around occupational and academic skill standards.

With the change in political climate brought by the election of a Republican majority in Congress in 1994, the locus for school-to-work reform has shifted some from the federal level to the states. But those four major pieces of federal legislation will remain the building blocks of education-for-work reform in the United States, and they merit individual discussion in this chapter. Together, the acts give a framework to a reform movement that the states will fill in.

2. Perkins

The first significant reform legislation is the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, which kicked-off vocational-technical education reform efforts. It represented a dramatic change in the direction of federal legislation, which had previously emphasized access for special populations. For the most part, Perkins focuses on in-school 15- to 24-year-olds. The themes for the 1990 Perkins Act were program improvement and accountability. Perkins has five important foci:

24. promoting integrated vocational and academic curricula and instruction

25. developing technical preparation education (Tech Prep) programs

26. promoting participation of special populations, especially the economically disadvantaged.

27. developing state systems of performance standards and measures

28. incorporating "all aspects of the industry" into curricula and instruction

Perkins involves the yearly distribution of $1.2 billion to the states on a formula grant basis. All states receive

federal funds for secondary and postsecondary (namely two-year community colleges) vocational-technical education under Perkins. For every federal $1 of investment, the states contribute approximately $10.

Curricula Integration

All states are required to implement vocational and academic integration, a new concept that was introduced in Perkins. Integration entails vocational and academic teachers working together to infuse academic content into vocational curricula, and vice versa. There are numerous approaches to integration of which contextual learning is an important aspect. Local efforts at integration are more pronounced at the secondary level than at the postsecondary. The localities and states are left to decide how to go about implementation. Perkins gives little guidance. Integration is an important strategy of systemic reform.

Tech Prep Programs

All states also receive funds to develop and implement Tech Prep education. Tech Prep promotes the seamless linkage of secondary and postsecondary vocational-technical education programs beginning with the eleventh grade (approximately age 16) through two years of postsecondary, occupationally specific instruction, culminating in a certificate or associate degree. Tech Prep education is the most prescriptive program defined in Perkins and requires a structured sequence of courses. An amazing grassroots support has developed around Tech Prep. The enthusiasm is both a strength and a weakness--a strength in stimulating tremendous growth in programs and student participation; a weakness in the haphazard application of the Tech Prep name to many programs that do not qualify as Tech Prep programs. Tech Prep is also an important strategy of systemic reform.

Special Populations

Special populations encompass the increasingly diverse American population, including minorities, the disabled, new immigrants, and students with limited proficiency in English. They also represent the areas of greatest population growth. (Although not considered a special population per se, girls are included under the rubric of gender equity.) Perkins targets funds to schools with high concentrations of individuals who are members of special populations. The National Assessment of Vocational Education (NAVE) (1994), a Congressionally mandated evaluation of Perkins implementation, found that special populations are over-represented in vocational programs. Historically, the federal emphasis has been on providing access, but NAVE recommends a shift in focus to one of assuring access to quality programs. Special attention will continue to be given to special populations.

Performance Standards and Measures

Under Perkins, states are required to set up and implement program performance systems. Perkins requires the states to measure gains in learning and competency. In addition, states must choose to measure at least one more of the following outcomes: occupational competency attainment; job or work skill attainment; retention in school; and/or placement in further education, the military, or employment. All states had established performance systems by September 1992, which are now in the implementation stage. Implementation in the localities has moved slowly, with many school districts focused on the implementation of other Perkins priorities. Performance standards systems are an important aspect of systemic reform.

All Aspects of the Industry

All aspects of the industry (AAI) is a concept introduced in Perkins. This approach involves providing students with experience and understanding of all aspects of the industry that students are preparing to enter. AAI covers planning; management; finances; technical skills; labor and community issues; and health, safety, and environmental issues. The intent is to broaden preparation away from occupationally specific education and training to encourage career flexibility across an industry sector. While AAI is receiving increasing attention, to date, implementation has been minimal. Perkins provides little guidance for the implementation of AAI, which is also considered an important aspect of systemic reform.

Perkins, with its emphasis on changing how schools prepare young people for initial entry into the work force, sets the stage for developing a new framework for work force preparation. The innovations highlight linkages: linkages between vocational and academic curricula, between secondary and postsecondary occupational programs, and, to a lesser degree, between schools and workplaces. Increased attention to accountability is expected from the states through the performance systems of standards and measures they develop that address program quality and outcomes.

3. Goals 2000

The next critical legislative authority driving reform in vocational-technical education is the Goals 2000: Educate America Act of 1994. The intent of Goals 2000 is to provide a framework for meeting the eight National Education Goals (see Appendix). Goals 2000 centers on the adoption of content and student performance standards and focuses on elementary and secondary education. Its purpose is to provide the framework for the reauthorization of all federal education legislation. Its first appropriation, in 1994, was $105 million.

States are to develop and implement an improvement plan for meeting the National Education Goals. In addition, states are expected to coordinate their efforts with the STWO legislation. States are urged to use the following five strategies specified in Goals 2000:

29. developing content standards and performance standards for all students (These standards must be coordinated with standards developed under Perkins.)

30. developing and implementing state assessments

31. aligning local or state curricula, instructional materials, and state assessments with the state's content and student performance standards

32. familiarizing teachers with the standards, and developing quality instruction within the content areas

33. improving the state systems of teacher and school administrator preparation and licensure

Directly related to education for work reform is the establishment of the National Skill Standards Board (NSSB). The NSSB was created under Goals 2000 to stimulate the development of a voluntary national system of skill standards. Housed in the U.S. Department of Labor, the 28-member board consists of representatives primarily from business and organized labor and from education, community-based organizations, and local and state governments. The Secretaries of Education, Labor, and Commerce are also members. The NSSB's functions consist of the identification of occupational clusters; the establishment of voluntary partnerships to

develop standards; research, dissemination, and coordination; and the endorsement of skill standards systems. The NSSB addresses a critical dimension of the STWO Act.

Goals 2000 provides the infrastructure for redesigning kindergarten through twelfth-grade education, including vocational-technical education. It encourages the states to institute content and performance standards (both academic and skill standards) for all students. In a sense, Perkins was prescient in its requirement to develop state systems of performance standards and measures. Goals 2000 takes standards the next step to student performance, and these standards must be coordinated with the Perkins-established performance systems. It is around this standards framework that secondary as well as postsecondary vocational-technical education reform will move forward.

4. School-to-Work

As the third piece of federal legislation driving change in work force preparation, the STWO Act of 1994 provides the systemic framework for vocational-technical education for work reform. The STWO Act is built on partnerships and focuses on the 15- to 24-year-old student population. It is administered jointly by the U.S. Departments of Education and Labor. The STWO Act represents a significant philosophical shift in the focus of federal legislation that prepares young people for work. First of all, it focuses on all students, breaking down the tradition of individuals choosing either the college track or the vocational track. Secondly, it concentrates on preparing young people for both college and careers, so that they can choose which education-career path to take and when. No one is excluded from the opportunity to continue with further education. Third, education is no longer the sole domain of schools. In STWO legislation, workplaces are seen as education-learning environments along with secondary and postsecondary schools. The STWO Act also introduces the concept of career majors and offers a variety of education-career pathway strategies. This legislation is scheduled to expire after ten years by which time all states should have received funds to support the development of their school-to-work systems. Federal funds, $250 million in Fiscal Year 1994, are viewed as venture capital. Local and state STWO systems are to be integrated with Goals 2000 systems.

The STWO legislation identifies three essential components of a quality school-to-work program: (1) the school-based learning component, (2) the work-based learning component, and (3) connecting activities. All STWO programs require the integration of vocational and academic curricula, linkage between secondary and postsecondary education, and linkage between education and employers. The STWO Act identifies a number of strategies for building quality school-to-work programs. Although not the only viable strategies, those noted have most of the component elements described in the law. They include cooperative education, Tech Prep education, youth apprenticeship, school to apprenticeship, career academies, and school-based enterprises.

School-Based Learning Component

The school-based learning component encourages career exploration by the middle school years and no later than the seventh grade (approximately age 12)--long before the student enters the eleventh grade. By the eleventh grade, students should have selected their career majors. Students should also have a program of study that prepares them for entry into postsecondary education and meets the requirements for a skill certificate. The program of study should also meet academic content standards established under Goals 2000. Integrated curriculum that incorporates AAI is an important element, as is the linkage between secondary and postsecondary programs.

Work-Based Learning Component

The work-based learning component focuses on providing students with a planned program of training and work experience coordinated with the school-based learning component. Workplace mentoring is the primary instructional strategy with instruction concentrated on developing workplace competencies, including the development of work attitudes, and employability and participative skills. All students are expected to have supervised work experience of some sort. Instruction should emphasize AAI.

Connecting Activities

The third component, connecting activities, may prove to be the most innovative aspect of the STWO Act. For the first time, legislation has addressed the need to provide incentives for employers, especially in small- and mid-sized firms, to participate. Through the connecting activities, employers can receive technical assistance, services, and training to build their capacity to participate. Both schools and employers can obtain assistance to integrate school-based and work-based learning, as well as academic and occupational curricula. The legislation also provides for a new type of educator, a school site mentor, who serves as a liaison among the student, employer, school, and parents. Matching students with the work-based learning opportunities of employers is a major responsibility of the school-site mentor. Training is also to be provided for teachers, workplace and school site mentors, and counselors.

The Implementation of School-to-Work

The implementation of the STWO Act involves awarding grants to state school-to-work partnerships. These partnerships are made up of representatives from key state agencies involved in some way with education for work. In 1994, the first eight states were awarded implementation grants. Another 19 were selected in 1995, with all states expected to have implementation grants by 2003. Initially, all states received development grants, with continuations for those states not yet ready to receive implementation grants. Grants are also being awarded to promising local school-to-work partnerships and to urban-rural partnerships geared to stimulate school-to-work development in economically disadvantaged areas.

The STWO Act focuses specifically on the restructuring of education for work. It espouses a partnering approach for reshaping the delivery system at local, state, and federal levels. The STWO Act builds on and expands the innovations introduced in Perkins. It reinforces and furthers the standards framework instituted in Goals 2000. It broadens the schooling framework to include work-based learning, and it brings in employers as full players in education for work. STWO legislation actually represents a paradigm shift in how the U.S. views and is approaching work force preparation.

Though it is still early in the life of the legislation, some lessons and trends have become apparent. The legislation has indeed been effective in stimulating local partnerships. Small- and medium-sized enterprises have become more involved than in the past. In general, there has been a flurry of local activity, as partners work to integrate curriculum, connect programs to postsecondary education, and struggle to create viable work-based learning experiences.

But the implementation period has also provided some hints of future challenges. For example, local partnerships face a thorny marketing challenge in promoting school-to-work programs as both a secondary and a postsecondary opportunity. In many localities, people have interpreted school-to-work primarily as a secondary-

level program, which cripples its potential contribution to work force development. In addition, a suspicion between education and labor/employment offices permeates local, state, and federal school-to-work efforts. Philosophical disagreements have already arisen in school-to-work programs about whether they should produce future workers for the employers, or focus on curriculum content and development of the student. Both goals are compatible, but can produce friction during planning and implementation stages.

In a related vein, the early years of implementation have also shown the potential for the politicization of school-to-work. In some states, the governors have become heavily involved in the introduction of school-to-work programs in their states. While their leadership has proved vital to achieving change, it has also politicized school-to-work. Since the governor has the authority to determine the fiscal agent, he or she may not rely on the traditional agent, the schools. Some have given the authority to economic development agencies, or employment and labor agencies. Their choice of agent has already had a profound effect in some states on the nature of the state's school-to-work effort.

5. Perkins Reauthorization

The current Perkins Act was up for renewal by Congress in 1995. The Reauthorization of Perkins is anticipated to be completed in 1997, though, depending on legislative and political developments, it may be subject to modification or consolidation with other education and training programs. It is the fourth step in the education for work reform movement. As the 1990 Perkins Act changed significantly from the 1984 vocational legislation (from a focus on special populations to a focus on program improvement), the 1996 Perkins Act is likely to be vastly different from its predecessors. That it will build on the framework provided by Goals 2000 and the STWO Act is already evident--the scope of Perkins concentrates even more on the 15- to 24-year-old population. A number of critical policy issues are shaping the dialogue around the reauthorization.

Systemic Change and Education Reform

The relationship of Perkins to achieving the National Education Goals and connecting to education reform is implicit in the reauthorization. The challenge is to systemically reshape the vocational-technical and education-for-work delivery systems into a cohesive, comprehensive, and efficient venture. To accomplish that goal, reauthorization must build bridges and find the interconnections between Goals 2000, the STWO Act, and other related education legislation such as the Adult Education Act, the Higher Education Act, and the Improving America's Schools Act (the new elementary and secondary education legislation). Certainly the new principles of serving all students and preparing all students for both college and career fit the spirit of education reform.

Program Innovation and Improvement

To what extent Perkins will continue to stimulate program innovation and improvement is yet to be determined. Innovations such as curriculum integration, Tech Prep education, and AAI need more time and support to become bona fide strategies of systemic change and education reform. Perkins already reinforces key tenets of the STWO legislation, namely the linkages between occupational and academic education, secondary and postsecondary programs, and, to some degree, school-based and work-based learning.

Teacher Education and Professional Development

In the United States, undergraduate and graduate programs preparing education administrators, instructors, and counselors for this field are being disbanded. The new legislation beginning with the 1990 Perkins Act introduces new thinking and new strategies about the types of educators needed. Indeed, the STWO Act sets the stage for a new breed of educator, a hybrid educator able to bridge the communication and learning cultures of both the school and the workplace--someone who is comfortable and effective in both worlds. Preparation for this new type of educator will necessitate the development of new "break-the-mold" teacher education programs. And there is the commensurate need for extensive professional development of those already involved with teaching and learning, whether in the school or in the workplace. In addition, new constructs, methodologies, and practices that contribute to new learning modalities are needed. Qualifications and credentialling also need to be examined.

Employer Involvement

The STWO legislation clearly brings employers into the business of education. The assumption is that employer involvement in education for work is good. That being the case, what then do employers need to know to be effective educators? Employers need help in getting involved in education for work. The involvement of employers from SMEs, where most job creation and job growth is occurring, is an important consideration. The part-time employment in which most high school students (an estimated 80 percent) are currently engaged might also be explored as another possible means for providing students with supervised work experience opportunities.

Standards and Accountability

Perkins, Goals 2000, and the STWO Act all address standards, both in content and program. The challenge is how to tie them together. The dialogue needs to address both academic and occupational standards, and both student and program performance standards. The relationship of Perkins and the STWO Act with the new NSSB also needs to be worked out. Not to be overlooked is the importance of sustaining currency, relevancy, and portability of skills.

Special Populations

Perkins' attention to serving special populations will continue. However, the context for doing so is likely to change. With the STWO Act, the notion of inclusivity by serving all students is presented. How to serve all students and still provide special populations with the attention they need presents a major challenge. The targeting of funds, providing special services, and assuring access to quality programs are dilemmas that will need to be addressed.

Coordination and Governance

Coordination of Perkins with Goals 2000, the STWO Act, and other related legislation poses yet another challenge to school-to-work reform: partnership with other agencies at the local, state, and federal levels. The recent effort to consolidate various federal laws related to work force education and training underscores the importance of close cooperation between departments and agencies. Consolidation could mean bringing together under a single authority those education programs involved with education for work, those legislative authorities serving a common age group, or most monumentally, all legislation that addresses work force preparation and training in any capacity. The Perkins Reauthorization provides the opportunity to bring together into a cohesive

whole the contributions of Perkins, Goals 2000, and the STWO Act in the reform of school-based vocational-technical education and education for work. Perkins focuses on programs, and the reauthorization will fill in the frameworks offered in Goals 2000 and STWO legislation. The reauthorization provides an opportunity to clarify the design of the vocational-technical education delivery system in total. Most importantly, it addresses the substance and the means of teaching and learning, and thinking and doing as they relate to preparing the student to make college and career choices.

6. The New System

Reform of vocational-technical education in the United States is well underway. The reform is demanding a number of significant shifts in thinking and direction. Vocational-technical education is shifting to education for work; job preparation is shifting to career preparation; and student choices between college or vocational tracks are being recast as college and career pathways. Other shifts include a focus from special populations to all students; from a separate vocational track to integration with regular education; and from an emphasis on secondary education to one on postsecondary. Individual autonomy is evolving toward teamwork and partnering, and federal emphasis on compliance and oversight is shifting to technical assistance and customer service. The federal role is that of change agent promoting those shifts.

The new system of education for work is beginning to take shape. Perkins, with its school-based focus, contributes the goals of integration of vocational and academic education, Tech Prep education, AAI, and state systems of performance standards. Goals 2000 contributes a framework based on content and student performance standards. The STWO Act, with its work-based focus, contributes governance and operational structures. It also provides model programs for local and state development. The Perkins reauthorization offers the opportunity to further the application of standards for both student and program performance, the improvement of programs complementary to the school-to-work model, and the participation of special populations in quality programs.

In the United States, federal legislation is being used as an instrument for reshaping how young people are being prepared for work. The federal role is as catalyst; the local and state role is as activators. Major changes are being stimulated in the structure of the secondary school, the relationship between secondary and postsecondary education, and the nature of employer involvement. New teaching and learning strategies are being developed. New forms of content and curriculum design are being explored. The players involved in education for work are being expanded and redefined. No more is the preparation of young people for work the sole domain of either the school or the workplace. Responsibility and participation are to be shared. Educators now include not only school-based instructors, administrators, and counselors, but also workplace mentors, supervisors, and managers. And all need to know how to communicate and function effectively in one another's environments.

It is hoped that this developing school-to-work system will bring cohesion and quality to the highly decentralized American approach to preparing a technically competent, globally competitive work force.

7. Postscript

In the period since the San Diego U.S.-EU Conference, the political climate affecting federal policy on school-to-work has changed dramatically. With Congress now reflecting a Republican majority, and more influential in setting the political agenda, the original vision of building a school-to-work system is likely to be significantly

altered. States will be expected to bear a larger share of responsibility in creating school-to-work systems. In addition, changes in federal budget priorities, combined with a sustained interest in balancing the budget, may lead to reduced or consolidated federal education and training efforts. A number of common threads remain, however:

34. Systemic education reform in how young people are prepared for careers remains a common concern.

35. Consolidation of federal programs that address career preparation and work force development is essential.

36. Support for the participation of special needs populations remains a priority.

37. Preparation of young people for careers continues to be essential.

38. Shared understanding exists that the federal role, while reduced, will remain important in providing national data, technical assistance, and accountability.

States will be given increased responsibility for career preparation that leads to desired outcomes; the federal role providing support to further systemic change, program improvement, and integration with school-to-work systems becomes even more important. Progress in education reform will depend on linking the STWO Act with other key pieces of federal education legislation such as Goals 2000, the reauthorization of Perkins, and the Improving America's Schools Act.

Whatever legislative changes occur, the nation's goal remains the same: ensuring that American youth and adults possess the occupational and academic skills necessary to compete in the world economy. The focus of vocational-technical education is changing. Localities and states will have more responsibility for fostering new public-private sector partnering arrangements and performance standards systems. These fifty state systems, which take a variety of approaches to career preparation, will provide the nation's students with new and comprehensive options for preparing for careers and further study.

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Appendix
National Education Goals

1. School Readiness. By the year 2000, all children in America will start school ready to learn.

2. School Completion. By the year 2000, the high school graduation rate will increase to at least 90 percent.

3. Student Achievement and Citizenship. By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's economy.

4. Teacher Education and Professional Development. By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

5. Mathematics and Science. By the year 2000, United States students will be first in the world in mathematics and science achievement.

6. Adult Literacy and Lifelong Learning. By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

7. Safe, Disciplined, and Alcohol- and Drug-Free Schools. By the year 2000, every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

8. Parental Participation. By the year 2000, every school will promote partnerships that will increase parental involvement and participation in promoting social, emotional, and academic growth of children.

Chapter 5
Building an Innovative Work Force

in the San Diego Community College District

Augustine P. Gallego*

Amid the worldwide clamor to improve education and work force training, the San Diego Community College District (SDCCD) provides a microcosm of how community colleges in the United States are responding to national and international challenges. To build an innovative work force in the San Diego community, these local institutions are developing strategies to address the training needs of small- and medium-sized enterprises (SMEs), to serve diverse populations, and to forge local partnerships for effective and efficient training programs.

1. Meeting the Training Needs of Small- and Medium-Sized Enterprises

SMEs have become an increasingly vital part of the American economy, and like every other district in the United States, the SDCCD has been striving to better serve the needs of SMEs in our area. The SDCCD has taken an aggressive approach to meeting their needs: We have convened active advisory groups which include many smaller employers, have embarked upon an extensive amount of contract training with them, and have built a Center for Applied Competitive Technologies to help them adapt to technological change.

The National Challenge

SMEs are where the majority of the jobs are now and where they will be in the future. Community colleges can play a critical role in economic development in their communities by developing specialized programs to serve the training needs of the SMEs through customized contract education and through state- and federal-supported programs. Given the limited resources of educational institutions, regional agreements need to be established to eliminate unnecessary duplication of training programs. Collaborations of public and private enterprises must be established if training programs are to be operated efficiently and effectively. In an increasingly diverse society, one-size-fits-all curriculum must be abandoned for instruction that fits individual learning styles and needs.

In 1993, former U.S. Secretary of Labor Ray Marshall[1] addressed SDCCD faculty and staff. His objective was to suggest ways to improve SDCCD's programs and services to the community. Secretary Marshall adopted a "reinventing educators" approach and noted that "Yesterday's education practice is not good enough in today's competitive world. Massive change in educational delivery is not a matter of just improving. It is a matter of self-preservation."

Marshall talked about the challenges to the United States, but his comments could be applied to industrialized nations around the world. He warned, "America's two choices are clear and simple to understand. We can continue to pursue current practice and become a low-skilled, low wage economy, or we can retool our educational institutions to educate and train to world class standards and become a high-skill, high wage society."

The U.S.-EU conference in San Diego also addressed this issue. The discussion of the training needs of SMEs was an especially timely topic.[2] In the United States, more than half of the manufacturing is performed by companies with fewer than fifty employees. Among all U.S. companies, 90 percent of the firms have fewer than twenty employees. Companies with fewer than 500 workers employ 57 percent of the nation's labor force.

Serving San Diego's Small- and Medium-Sized Enterprises

San Diego County mirrors the nation in the size of its firms. Approximately 87 percent of the 60,541 enterprises in the county employ fewer than twenty employees. Among the 3,321 manufacturing establishments in San Diego County, 57 percent have fewer than ten employees.[3]

San Diego also mirrors the nation in a technology gap among small- and medium-sized manufacturers that National Association of Manufacturers Chairman Robert Cizak described as "wider and deeper than the Grand Canyon. The technology they need is on the shelf. The biggest obstacle to their adopting it, other than a lack of capital, is the inability of their workers to understand and use it."

In the community colleges, it is our role to embrace technology--to show small business how it benefits them. We must also demonstrate our ability to train the workers and potential employees who have the ability to understand and use the technology. The SDCCD is bridging the technology gap through its Center for Applied Competitive Technologies (CACT) located at San Diego City College.

The San Diego CACT is one of eight regional centers in California to assist area manufacturers through education, training, and technology transfer services. It is funded by local, state, and federal governments. At the regional level, the CACT is part of a well-coordinated local network, which includes the City of San Diego High-Tech Resource Center and the Greater San Diego Chamber of Commerce Small Business Development Center. It is designed to help companies modernize their operations and adopt leading-edge technologies. Assistance by the CACT includes training in computer-aided design and manufacturing, business systems and management procedures, and total quality management (TQM).

Manufacturing companies have turned to the San Diego CACT for help with a variety of problems. A leading manufacturer of high-performance closed circuit television cameras and security systems that was facing declining profits, dwindling sales opportunities in the defense industry, and increasing foreign competition turned to the San Diego CACT for TQM training. The company reduced its process time by three days, and reduced manufacturing costs by eight percent. A new appraisal system rewards employees for contributing to this kind of improvement.

Along with turning existing companies around, the CACT assists fledgling start-ups through the San Diego Technology Incubator. The incubator provides manufacturing and office space and technical and business development assistance for up to twenty emerging companies that are housed at San Diego City College. The City of San Diego's High-Tech Resource Center refers individuals to the incubator and helps qualifying companies obtain seed funds for working capital and machinery.

Contract Education in San Diego

San Diego community colleges are also involved in contract education, providing customized training to meet the needs of individual employers.

Diatek Incorporated, a San Diego manufacturer of medical equipment, contacted the SDCCD Workplace Learning Resource Center when it needed assistance in improving the communications skills of its limited English-speaking production employees. Less than a year later, 71 Diatek employees had each completed 72 classroom hours and 36 hours of structured on-site training in workplace ESL (English as a Second Language) communications.

Prior to providing the on-site classes for Diatek, Workplace Learning Resource Center staff conducted literacy audits, needs assessments, and participant surveys to determine the existing language skills of employees. They also identified what kind of training they would need to help them communicate more effectively on the job. Following the assessment process, curriculum developers worked closely with Diatek supervisors and line workers to ensure that instruction would meet the identified needs. Throughout the training process, the community college district staff solicited feedback from Diatek management to ensure that the company's objectives were being met. Diatek identified five lasting benefits from the training: (1) employees developed better problem-solving skills; (2) participants increased their self-esteem; (3) increased self-esteem made participants more comfortable communicating, with an increased level of communication as a result; (4) participants developed greater teamwork skills; and (5) the education process helped break down cultural barriers.

Rose Tomich-Litz, who was manager of manufacturing operations for Diatek and is now director of operations for a Diatek subsidiary, is adamant that more education-business alliances such as the one formed between her parent company and the SDCCD are essential for building bridges in our fragmented society. "Education can become more effective by learning some lessons from business," she said, "and we in the business world need to recognize the many resources educators can bring to us" (*The Power of Partnership*, 1993, p. 11).

For the college district, the big payoff in contract education is that, while we are customizing curriculum for employers, we are also learning more about what skills are needed in the work force. This knowledge allows the colleges to change the curriculum so that graduates will be better prepared for the workplace. It is this kind of mutual gain that is necessary for successful partnerships between education and business.

Collecting Data on Local Employer Needs

In addition to using contract education as a window into local employers' training needs, SDCCD also relies on a variety of other sources. CACT, for example, conducted a comprehensive survey of 1,700 manufacturing companies last year. The Economic Development Corporation of San Diego County is currently surveying all manufacturers in the county, and SDCCD will use that information to make decisions regarding our programs. Other sources of information include the State of California Labor Market Information Division of the Employment Development Department, the Economic Research Bureau of the Greater San Diego Chamber of Commerce, and the U.S. Census Bureau. Each occupational program has an industry advisory council to critique instructional content and delivery. A number of SDCCD administrators serve on regional economic development and community councils and task forces, as well as develop linkages with enterprises which hire employees in fields that come under the administrators' training program responsibilities.

SDCCD has many outstanding programs, as do many other educational institutions in the area. However, all can improve their performance and become better.

Unfortunately, despite the fact that community colleges should pioneer the introduction of technology, some

community college programs are not moving quickly enough to embrace and use technology in the classroom. While some of the sluggishness can be attributed to lack of funds to purchase new equipment, part of the problem is a fear or reluctance to change.

Some critics have suggested that we cannot afford technology. But truly, we cannot afford not to embrace and adapt new technologies. At the same time, some education analysts argue that more money may not always mean better schools. In our district's experience, more money used wisely can mean better schools and colleges, if they use the available funds more efficiently and effectively. For example, in California alone, there are more than 1,000 adult education and training program providers that operate in an uncoordinated manner.[4] For the most part, they do not work together cooperatively to ensure that services are not duplicated.

2. The San Diego Community College Districts Commitment to Inclusivity

SDCCD's second major strategy to build an innovative work force is to capitalize on the wonderfully diverse San Diego community. To improve teaching and to better meet the needs of an increasingly diverse adult population, SDCCD is in the middle of a partnership with San Diego State University and a private research firm. With a grant from the Hewlett Foundation, the three organizations have formed the Consortium for Workforce Education and Lifelong Learning (CWELL).

This project is designed to establish classroom teachers as researchers to help them adjust their curriculum to the needs and learning styles of a diverse student body. It integrates social skills, basic skills, and employment skills into a total curriculum, with input from the students and the business community.

CWELL focuses on undereducated, out-of-school youth and adults. Classroom teachers in adult basic education, ESL, and adult secondary education classes are transformed into researchers who query their students, then adjust their teaching styles to meet the individual needs of students. As a partner in the CWELL project, San Diego State University has developed the first comprehensive professional preparation program in California for preparing educators to work with out-of-school youth and adults.[5] CWELL received a grant in 1995 from the Lila Wallace Reader's Digest Fund for research and development to better understand how ESL instruction can be integrated with instruction in vocational or parenting education.

3. Local Leadership Challenges in San Diego

Local leadership is the third essential ingredient to improving education and work force training in San Diego. One of the most pressing needs in organizing local partnerships is to forge regional agreements on work force training, to cut duplication, and to operate at the scale necessary to serve the needs of the entire Southern California labor market.

Local Collaborations

In San Diego and Imperial Counties, the six community college districts do work together to provide balanced instructional programs geared to the training demands of our region. We work out problems and needs through the San Diego and Imperial Counties Community College Association. The SDCCD has also collaborated with several local and state agencies, chambers of commerce, and hospitals to provide services at one-stop centers to

serve common clients. We share facilities and costs and provide improved services to our clients. The San Diego Technology Alliance, of which the SDCCD is a member, has done a good job of coordinating technology-related training programs. While the community colleges in our region have coordinated our programs, there are several other state and federally funded employment training programs that operate independently, with little coordination among training entities. In each of our communities, whether in California or Europe, Central America or South America, we should be advocating for regional agreements and policies on work force training, if they do not already exist. Part of that effort should include linking all training programs in a region so that they articulate with local economy needs.

Leadership and School-to-Work

One of the most important proving grounds for local leadership is in the increasingly important area of school-to-work. The emerging school-to-work efforts in the United States hold great promise for developing a world-class work force by connecting the needs of industry and technology with the school curriculum. But again, the United States has a long way to go to achieve this goal.

School-to-work, if successfully implemented, will also address the 75 percent of high school graduates who do not go on to get a four-year college degree. Germany and France have demonstrated a long-term commitment to preparing the noncollege bound for the work force, and the United States can learn a great deal from them.

In San Diego, a handful of school-to-work occupational programs have been developed, and more are planned, which connect the high school programs to community colleges and entry-level jobs with industry. A major challenge is to convince more enterprises that significant involvement in the education programs is in their best interests and will prove to be profitable for them and our community.

For school-to-work to be successful, we must find ways to gain substantial involvement of business and industry in our training programs. Advisory council meetings once or twice a year is not enough. In fact, economic development and training expert Anne Heald has found that those institutions relying solely on advisory councils as the backbone of their relationships with business and industry do not develop effective school-to-work programs.[6]

For school-to-work to be successful, industry must take on the responsibility to provide work-site learning opportunities, contribute to the development of standards and curriculum, and assist students in high schools and community colleges in finding career pathways.

For school-to-work to be successful, educators cannot be complacent. Derek Bok, the former president of Harvard University, once said, "Left entirely to their own devices, academic communities are no less prone than other professional organizations to slip unconsciously into complacent habits, inward-looking standards of quality, and self-serving canons of behavior."

We must resist that complacency, the inward-looking standards of quality, and the self-serving behavior. Our curriculum ought to be consistent with our mission and be demand-driven.

If we do not work with business and industry in a substantive way, then our programs will never see the "New Visions" theme of the U.S.-EU conference.

Local Leadership and San Diego's Future

As chancellor of a community college district that serves a total of 145,000 students at three colleges, six adult continuing education centers, and contract education programs at work sites, I find it crucial to be involved with business, government, and civic leaders in the region. This is an opportunity to emphasize the vital role our institutions play in the local community. If local leaders meet regularly with community college administrators to discuss the challenges we face and the changes needed to make improvements, we can establish a spirit of cooperation that will be passed to our staffs. Moreover, we can also make joint decisions to act on issues collaboratively. San Diego has accomplished this kind of cooperation through a variety of regularly scheduled meetings with local firms' chief executive officers and via participation in organizations such as the Greater San Diego Chamber of Commerce, the mayor's Renaissance Commission, and the Pacific Bell Educational Infrastructure Funding Forum.

In the United States, we can no longer accept the excuses that we have reached out to business but all they want to do is complain and not get involved. And we cannot accept the flip side of that, which is that business should not be involved in the development of curriculum and standards in the classroom. Partnerships, real partnerships, and not symbolic or mandated committees, need to be fostered.

Educational institutions are facing increasing demands for services while resources are decreasing. In this environment, community colleges are going to have to be inventive--and partnerships can help. In the San Diego Community College District we have developed a number of successful partnerships with public and private sector organizations.

4. Conclusion

Education and business need each other. Education can introduce new technologies to industry and train the employees in them, particularly for SMEs. We need to expand our capabilities in this area. Industry can provide the feedback and the pressure that education sometimes desperately needs, particularly in terms of the problem-solving and critical thinking skills. Educators must heed Derek Bok's warning and not allow our institutions to be left to their own devices. Otherwise people *will* slip into complacent habits, inward-looking standards of quality, and self-serving canons of behavior.

At the U.S.-EU Conference, participants came together as partners to share experiences and insights that are of mutual benefit to our countries and our organizations. Yet our nations are also competitors in the global marketplace. The lesson learned from this competitive-partner relationship is that you should love your competitor. He or she is the only one who makes you as good as you can be. In the same respect, educators in partnership with industry should learn to love their partners--and sometime critics--from business because they are the ones who can help us be our best.

Endnotes

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1 Ray Marshall, professor of economics at the University of Texas at Austin, co-author of *Thinking for a Living* and a former Secretary of Labor, presented "Planning for the 21st Century" keynote address at a San Diego Community College District conference, March 12, 1993 at the Hyatt Regency, San Diego, California.

2 Robert Cizak, chairman and CEO of Cooper Industries, Inc., and Chairman, National Association of Manufacturers, reported that small businesses and small manufacturers account for 90 percent of the new jobs in the United States, at a Town Hall of California meeting, Los Angeles, California, June 30, 1993.

3 All statistics are from the U.S. Census Bureau and Greater San Diego Chamber of Commerce Economic Research Bureau.

4 Information provided by the California Department of Education and California Community Colleges office in Sacramento.

5 In 1990, the California Workforce Literacy Task Force found no comprehensive professional preparation programs in the California State University or University of California systems, or elsewhere in the state, for preparing educators to work with undereducated, out-of-school youth and adults. In 1991, faculty in the Departments of Educational Technology and Administration, Rehabilitation, and Postsecondary Education (ARPE) in the College of Education at San Diego State University joined the team that later became the San Diego Consortium for Workforce Education and Lifelong Learning (CWELL). Dr. Bill Piland of ARPE coined the term "WELL," Workforce Education and Lifelong Learning, as the name of a new specialization in the Department of Educational Technology. The new graduate-level professional obtains a master's degree in education, with a concentration in educational technology, and a specialization in work force education and lifelong learning.

6 Anne Heald is the executive director of the Center for Learning and Competitiveness at the University of Maryland, College Park, Maryland.

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The power of partnership: Economic development program of the California Community Colleges annual report 1992-1993. (1993). Sacramento: Chancellor's Office, California Community College.

Section III

Inclusivity

Chapter 6
The Inclusivity Imperative: Leveraging the

Creativity of Human Diversity

Esteban Soriano*

1. Introduction

America and its European Union partners are working to forge stronger vocational and technical education/training programs to accommodate the "global work force." The important process of worker "inclusivity" does not, however, enjoy the same definition across all partners. In the United States, "inclusivity" is associated with "diversity" and its main objective is the inclusion and empowerment of all citizens and of all the work force. Through such inclusion and empowerment, companies can thrive; economies can survive; and industry can more easily accommodate the re-engineering, downsizing, and market shifts that characterize today's economic landscape. The promotion of the "diversity" characteristic of "inclusivity" can be viewed as a powerful economic strategy for companies and countries. It must be advanced, however, through changes in the methodologies of educators, entrepreneurs, and political leaders in America and EU member states. Focusing on the "diversity" aspects of inclusivity may help other countries to achieve economic objectives by better understanding the documented dysfunction occurring in the so-called homogeneous work forces of the world.

2. European and American Perspectives on Inclusivity

As a word, "inclusivity" has become the recent catch term to describe efforts to include populations in the process of vocational education, technical training, work force participation, and the like. In some industrialized countries, particularly European nations, "inclusivity" is viewed more from a macro level; that is, the term often is used to describe efforts to include all of a perceived primarily homogeneous population in vocational-technical training and education. For some eastern hemisphere policymakers, "inclusivity" is used to describe the efforts to ensure access to balanced vocational and academic training programs for a country's citizenry.

In the United States, because of its diverse population, "inclusivity" is used primarily to denote the efforts to ensure the participation of different population groups (characterized along ethnic, racial, gender, age, and geographic demographics) in vocational-technical training and the workplace. This more microlevel perspective of the term "inclusivity" in America speaks to the dynamics of diversity, equity, and empowerment at the workplace, school site, and training facility.

While these macro and micro views can both be accommodated in the larger definition of "inclusivity," any discussion of vocational-technical training from a global perspective should be cognizant of the differing perspectives on this theme held by the United States and its international partners.

Global Challenges and the Locus of Competitiveness

The world is filled with challenge and opportunity. Across continents and cultures, the forces of the world have created a number of imperatives.

The reuniting of once divided countries, the unification of trade policies across nations, the ease of international travel, the instantaneous reality of worldwide communication, the flow of information, and the movement of goods across the globe are some of today's realities.

Countries and companies are challenged by ever increasing competition, international quality standards, and narrower profit margins, and they are confronted by a potential customer or client who wants "it" done quickly, economically, without error, and on time. There is the demand to constantly produce the "next generation" of a product, to provide a new "breakthrough," to "add value."

To government leaders and business owners, the imperatives are clear: They must move a country or company to be more competitive, more creative, more efficient, and more capable of managing the marketplace.

Within a country, the locus of competitiveness, creativity, and efficiency is its citizens. For a company, clearly it is its work force.

The Power Inherent in People

People either create or merely continue along the same course. Either they are motivated to efficiency or satisfied with complacency. And they have the choice whether to sharpen themselves into a competitive blade or remain blunt, common, and ordinary.

In the world of business, the work force is the force behind staying in business or going out of business. The people who make up an organization represent the blocks that either build up a company or create the walls that insulate it from success.

And today, more than ever, the imperative for every business--of any size and from any country--is to nurture a work force that is equally driven to the goal of success and stability for the company. The imperative for every country is to nurture an economy that provides the equal opportunity for its citizens to contribute to its success and stability.

And here is where the imperative of inclusivity enters the equation.

Inclusivity and Diversity

"Inclusivity" has both macro and micro views and can characterize different aspects of the issue depending on one's frame of reference (e.g., the U.S. perspective of a diversified population versus the European experience with a perceived homogeneous citizenry). From a U.S. or micro perspective, "inclusivity" has come to represent the internationalization of the term "diversity." Author Ed Hanke's (1994) definition of diversity captures the essence of the U.S. view. Reflecting on a training seminar conducted by Linda Tauhid, the head of an international diversity consulting firm, Hanke writes that an organization's commitment to diversity is a commitment to "create an environment in which all people are regarded as an integral part" (p. 9).

At minimum, then, "inclusivity" involves the access by and involvement of all of our citizens and workers. It is the inclusion of people diversified by demographics, geography, gender, culture, and nationality.

On its own, the term "inclusivity" has been undergoing examination and considerable extrapolation. Roosevelt

Thomas (1990) likens inclusivity with "diversity" and defines that term as "the enabling of people" in order to get from a "heterogeneous work force the same productivity, commitment, quality, and profit that we got from the old homogeneous work force" (p. 109).

Researcher Patrick Dawson (1994) argues for a national perspective on "inclusivity" by challenging countries to "develop programs which are able to accommodate multi-ethnic work groups and cultural pluralism" (p. 55). And, in an article on global companies, Maddy Janssens and Jeanne Brett (1994) suggest that the corporations of today must commit to a "truly multi-cultural managerial workforce" (p. 62), supplemented with human resource policies that emphasize fairness and the co-existence of differences.

3. The Economic Imperative for Diversity

Developing Economic-Based Strategies

Since the mid-1970s, the United States and some industrialized nations have experimented with aspects of worker empowerment, team decisionmaking, civil rights, affirmative action, and equal employment opportunity (Carnevale & Stone, 1994). Arguably, while much of this experimentation was promulgated because of legal mandates, the locus for much of the momentum in this arena has been, and is, the result of perceived social and moral imperatives (Cortes, 1994). In the 1980s era of relative economic growth, diversity was accommodated, in large measure, because there was "enough of the prosperity pie" to share.

The 1990s are a different environment economically. Entire economies are stagnant at best. Job creation has been replaced by downsizing. A "lock on the market" has been replaced by global competition. The practice of expanding the work team to get more done has been replaced with requiring the existing team to be more and do more. Today, many countries and companies are not thinking about slicing and sharing the pie, they are thinking about economic survival and renewal.

This backdrop produces some important challenges for those who are proponents of cultural diversity, of inclusivity, and of the empowerment of workers and citizens. For those who believe in the need to include diverse demographics in educational programs, in the schools, in companies, and in their respective governments, their goal must be to strategize to get others to think as inclusivity proponents do.

In light of contemporary economic realities, the 1980s' arguments for inclusivity, diversity, and multicultural programs because they are the "socially correct thing to do" are no longer persuasive. Now, the challenge for inclusivity proponents is to show economic benefits and argue inclusivity and diversity purely and exclusively from an economic perspective.

Governments, schools, and businesses can be inspired to embrace diversity, multiculturalism, and inclusivity, but they must be shown and convinced of the economic benefits and business consequences of inclusivity or the lack thereof.

The more timid proponents may tend to assume that "business minded" entrepreneurs and governments may view "diversity" as an unnecessary expense and an encroachment on capitalism. If argued with reason, such does not need to be the outcome. For as David Rieff (1993) concludes in his review of "inclusivity" (read multiculturalism) around the world, "The mistake the multiculturalists made is in imagining that their efforts . . . undermine the fundamental interests of capitalism. The contrary is surely closer to the truth: the multiculturalist

mode is what any smart businessman would prefer" (p. 64).

Purely from an economic perspective, a strategy must be to demonstrate to business an improved "bottom line" once they embrace inclusivity and cultural diversity among their work force. Today, the diversity argument must present example after example of businesses using inclusivity to create a more efficient, competitive, creative, and quality work force that produces better output, creates new products, and opens up new marketplaces.

The Bottom-Line Business Impact of Inclusivity

As early as November 1987, Proctor and Gamble, the international conglomerate, brought together a think tank of other business leaders to envision the marketplace of tomorrow and what they would have to do to achieve continued growth and corporate prosperity. One of the three major conclusions reached from that exercise was that "capitalizing on diversity will provide a business advantage" (Copeland, 1988, p. 48). Since that time, Proctor and Gamble has, in fact, diversified its work force and celebrated differences and the result has been a more diversified company that has expanded its marketplace and products--particularly those of interest to ethnic and other demographic groups.

Last year, Pacific Bell of California, one of America's largest telephone systems and a multibillion dollar company, concluded the efforts of a two-year external task force charged with developing the processes and procedures to implement diversity into the corporate culture. Pacific Bell intuitively felt that diversifying its work force, management team, and vendors would strengthen it as a company (Pacific Bell Consumer Advisory Council XII, 1992). By hiring and listening to its culturally diverse work force, Pacific Bell has instituted new services to Hispanics, Asians, seniors, and others. These efforts are referred to as "Special Markets" and they are among the fastest growing client bases of the company. More importantly, by celebrating the diversity of its work force, the company has reduced the discord among staff. The results have been astounding. More system "up time," improved quality, higher customer satisfaction ratings, and more output per staff member have been just some of the results.

In 1992, the Eugene, Oregon, water and electric utility department was headed on a course likened to the HMS Titanic. The head of the department lamented that the "department was in shambles. We were plagued by low morale, high absenteeism, a feeling of no purpose, and no connection to the organization" (West, 1994). Vowing to retool the organization, management turned its attention to its gender, ethnic, and age-diverse work force. Listening to the suggestions of employees, the department instituted team-based work to foster a sense of ownership; gave employees the authority to solve problems and directly resolve customer complaints; and provided training programs on self-motivation, self-supervision, and decisionmaking. The results went directly to the bottom line. Customer complaints are down 90 percent, the use of sick leave has been reduced by 43 percent, and, on a collective annual basis, the employee team now takes 2,000 hours less to perform certain functions than before the program was instituted.

The Boston, Massachusetts, assembly plant of Digital Equipment Corporation (DEC) was having a difficult time with quality control and meeting its goal of zero defects in the keyboards it was manufacturing. Its 350-member work force came from 44 different countries and spoke 19 different languages. By empowering its workers, by focusing on team-building, by embracing the value of each worker, and by acknowledging cultural diversity via printing company announcements in seven different languages, DEC turned that factory into a showcase of efficiency and quality production. To the point, DEC says "the program has improved the productivity of both

manufacturing and field sales groups" (Dreyft, 1990, p. 167).

The implementation of a diversity enrichment program at Corning, Incorporated is one of the classic case studies of American business. Long a world leader in glass manufacturing and consumer products, Corning implemented affirmative action programs in the 1970s as did many other companies. In 1983, a relatively new CEO, James Houghton, made a diverse work force one of three top corporate priorities (along with total quality management [TQM] and increased profits). He believed that the quality of Corning's work force directly affected and contributed to TQM and higher profits. The CEO reasoned that higher attrition rates among ethnic and female workers simply resulted in more recruitment costs and wasted training and orientation resources. Higher turnover resulted in less productivity, more manufacturing errors, and less profits.

Corning implemented internal quality improvement teams to focus on ethnic and gender diversity. All salaried employees (over 7,000) were required to participate in multi-day diversity awareness and training sessions. Culturally and gender diverse work teams were promoted and given the authority to change processes in order to improve quality and productivity. Career planning and staff training programs were introduced for all employees. Articles celebrating worker diversity and empowerment were regularly featured in company in-house publications. These and other strategies paid off. Corning grew, and profits and the quality of its products increased. Responding to a question of the value and return on investment of work force diversity, CEO Houghton stated, "It simply makes good business sense" (Thomas, 1990, p. 110).

The celebration of diversity and public-private partnerships works in our schools as well. At the predominantly minority George Westinghouse Vocational and Technical High School in Brooklyn, New York, IBM and Xerox and others have joined with school administrators to give these ethnic students a sense of participation, of decisionmaking, and of creative empowerment in their work to build computer circuit boards. By including them in the opportunity, these students have been able to blossom. Since the schoolwide adoption of this program in 1990, the dropout rate of students has fallen from 12.9 percent to 2.1 percent (Del Valle, 1994, p. 72). Just envision the savings of both human and fiscal capital.

From the Minds and Mouths of Business Owners

During the past five years, The Resource Group has surveyed over 200,000 businesses in California and the western United States. [1] Business owners and entrepreneurs were asked what they needed to stay in business, to be more competitive, and what they needed from their work force.

Business owners say they need a work force that is computer literate, possesses a well-rounded and basic education, knows how to communicate, knows how to solve problems, can work in a team setting, and is motivated. Present the business owner with a work force possessing these qualities and that business will flourish. It will be competitive and have a team with the right tools to be creative, efficient, and effective in today's marketplace. The key term in all of this is "team." By definition, a team implies the collective energy and commitment of all individuals in that environment, or in this case, in that company.

And the reality of today's workplace and potential work force (nearly anywhere on the globe) is that the environment is filled with people who are different from one another, who come from different cultural and socioeconomic backgrounds. These culturally and demographically different people can either be included as part of the team and their ingenuity and individuality celebrated or they can be kept away, isolated, out of the decisionmaking loop, and out of the mainstream of workplace creativity and enterprise.

Maslow's Hierarchy of Needs argues, in part, that individuals need their ego satisfied, they need to feel wanted and loved, and they need a sense of belonging. When they feel wanted and valued and part of a team, then they are more apt to open up and contribute what they can . . . to themselves, their families, and their jobs.

The smart company or country recognizes that economic survival requires practicing inclusivity and that it include its diverse individuals in the team. The company's survival requires work force empowerment, individual decisionmaking, and the nurturance of individual creativity.

4. Inclusivity and Its Challenge to Education and VOTEC

The implications of this business and governmental mindset for education are enormous. If businesses are expected to include culturally diverse individuals in decisionmaking, in quality control, and in the creative process, then education had better produce a work force-ready graduate (or completer) who is skilled and capable in these areas.

If there is an Achilles' heel in the inclusivity imperative, it rests with the ability of education to deliver culturally diverse labor pool participants who can communicate, who can solve problems, and who can exercise creativity.

Many business and government leaders are not convinced that education can point to a very successful track record in this area. Around the world, researchers have documented that there is not equal access to education, that there is a class system, and that some students have less of a chance at a decent education because of their socioeconomic status or cultural background. In California, the site of the U.S.-EU conference, education has not achieved singular success in attracting, educating, retaining, or graduating culturally diverse student bodies over the past decade. And this has been during a time when student bodies were 25-30 percent ethnic minority. The challenge only heightens over the next ten years as student bodies become 50-60 percent culturally diverse.

If entrepreneurs are challenged to truly exercise inclusivity in a company, then so must educators be challenged to do so on a campus. If an industry and social goal is to have a student capable of contributing to the world of work, then businesspeople must be afforded an invitation into the vocational and academic education world to help shape the programs that shape the students that will be their work force of tomorrow.

To have a creative, competitive, and diverse work force requires a culturally diverse group of workers who are educationally prepared and skilled. With sufficient education and skill preparation, worker empowerment and creativity are like "cause and effect." Give everyone an education, the skills, the opportunity, and the self-esteem to achieve, and the perfect environment for creativity and efficiency has been achieved.

5. Global Economic Pressures Demand Diversity

Both intuitively and by practical evidence, the imperative and promise of inclusivity is real. At the core of many major contemporary global economic pressures is a country's work force. The inadequacy of preparation of a labor pool can be at the core of a nation's lack of economic competitiveness or poor market positioning. The adequate preparation of or commitment to invest in a work force may very well represent a singular positive strategy for economic revitalization and market reformation.

For example, in this world of downsizing, countries and companies will have to depend on more and more from

fewer and fewer employees. Germany, Great Britain, and Australia are but a few countries where painful lessons are being learned (Templeman, 1994). The very nature of downsizing requires the remaining work force to be as or even more industrious, creative, and productive. Arguably, the shift to inclusivity and worker empowerment may nurture that productivity.

The changing relationships between countries now argues for partnerships based on trade rather than military advantage. And trade is based on the creation and marketing of goods and services--products and energies that rely on workers! To underscore this point, look at the Philippines and its relationship to the United States. Since having the U.S. depart from Subic Bay and Clark Air Base in 1991, Philippine President Fidel Ramos has repeatedly stated his goal in public of "wanting to forge a more mature relationship built on trade rather than military security" (Albor & Barnathan, 1994, p. 64). To accomplish this, Ramos is challenging Filipino companies to improve customer service, create jobs, and become globally competitive. Central to these objectives is the culturally rich labor pool. The involvement of that work force in the improvement of customer service, job creation, and the creativity that spawns competitiveness may well serve as the ultimate foundation for Ramos' economic platform.

The Cost of Exclusion

The extreme financial burden on governments for social programs for welfare, unemployment, work force displacement, and the like, is literally strangling many countries. At the core of unemployment and worker displacement is the worker. An involved, trained, and efficient worker serves to undergird a competitive company. Unskilled, unmotivated, unchallenged, and disregarded workers are the foundation of a weak and unstable business. The end results of this can be anticipated: loss of jobs, unemployment, and welfare. The involvement and empowerment of the labor force, then, is directly related to the provision of and reliance on national welfare for many countries.

Recently, various press accounts have reported that Canada is nearly broke because of its welfare, unemployment, and social programs. And *Business Week* has reported that Germany's unemployed are straining the resources of that country. If citizens are deprived an education because of some demographic characteristic, this practice has surely contributed to the country's unskilled and unemployed masses (Templeman, 1994, p. 60). If equal opportunity and recognition in the workplace is not provided, the result may be friction, little or no creativity, and an inefficient and noncompetitive work force. The end results of this are layoffs, business shutdowns, and a stagnant economy.

The pressure of performance and output are even impacting the seemingly sacred cow of the lifetime employment stereotype of Japanese companies. The manufacturing giant, Matsushita Electric Industrial Company, headed by President Yoichi Morishita, now offers five-year or less employment contracts for key positions and its president has stated that "one of our biggest challenges in approaching the 21st century is improving white-collar productivity" (Neff, 1994, p. 108). Matsushita pledged to accomplish this by decentralizing management, reducing layers of bureaucracy, diversifying his work force (particularly in U.S. and non-Japan manufacturing facilities), and empowering each worker to be able to make more decisions. Here, the lesson of inclusivity and its key feature of empowerment is obvious. The inclusion of all workers and the reliance on their skills and creative decisionmaking is an extraordinarily powerful strategy for increased productivity!

Inclusivity Is at the Core

Thus, for countries, the inclusivity imperative is at the core of economic advancement, increased productivity and trade, increased product quality, and an increased competitive edge in the world economy. For companies, the inclusivity imperative is at the core of business survival, new markets, new products, working smarter, and an improved bottom line. For educational institutions, the inclusivity imperative is at the core of equitable and accessible programs, of cross-training curriculum, of preparing vocational education program graduates who are academically capable, and of producing academic track graduates who have skills for the work world.

Educators and researchers have now done sufficient initial studies on this topic, and have a sufficient amount of initial training materials. Computer searches identify nearly 1,400 articles dealing with diversity, multicultural work force issues, and empowerment. One database lists nearly 200 articles of international case studies and research on work force diversity. At least six major U.S. universities have special institutes on this topic. And a recent article identified scores and scores of training program providers ready to enlighten the mind and lighten the budget ("Global Training Courses," 1993). It is now time to promote implementation, not more investigation.

The work force of tomorrow for many countries and companies will be comprised of demographically and culturally diverse citizen workers, coupled with an ever increasing percentage of immigrant workers. Thus, from both a local and global perspective, it is in our collective best interest to advance inclusivity at every company, campus, and country on our planet.

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Chapter 7
Innovation for Inclusion: Ensuring Access and Participation for All

Gerhard Welbers *

1. Introduction

Every nation's economic development depends on knowledge, creativity, and innovation. The work life and social life of its citizens depend on those ingredients, too. The transition from the industrial society to the knowledge society has engendered the deepest, most profound, and most rapid period of change in human history. This change, transforming the structure of society and the organization of work, requires individuals to develop new types of skills and higher levels of competencies.

Education systems must adapt to these new requirements and ensure that all young people have the opportunity of acquiring these necessary skills and competencies. This chapter considers how systems might best respond, through the introduction of a new policy emphasis on inclusion, and by improving the attractiveness of vocational education and training. It also focuses on innovation districts, a new approach to inclusion which is being tested in a number of locations throughout the European Union. The initial results of these pilot districts are encouraging and demonstrate that a coordinated, interagency approach can generate new services and a wider range of opportunities for disadvantaged young people.

Economic Change and Education

The change we are now experiencing is not a tornado spinning out of control. It is the result of a deliberate choice our societies have made to preserve and develop their economic wealth. Thus, it is our task to accept full responsibility for the option we have chosen, and to work together to prepare a response which will benefit everyone.

Schools are realizing that they must take a constructive and leading role in facing this change. They must develop new forms of learning. Their new role extends beyond that of a conveyor of knowledge and know-how to that of an organizer of a wider learning process. In the future, they will need to act more effectively as a switchboard linking and combining different learning environments, and tapping resources outside the school: in the world of work, in the community, and in other sectors of society.

Education must change if young people are to develop their own initiative. And, since learning can take place in a variety of contexts, during compulsory schooling and throughout life, schools must help youngsters develop a lifelong capacity to learn. These ideas are shared by educators and governments. Throughout the EU, different networks of pilot projects in the past decade have been concerned with innovation in this field.[1]

Europe does not so much lack models of good practice as much as it lacks more systematic approaches to their

wider implementation. Like supertankers, most education systems take a long time to change their course, but now they have to navigate in an ocean of challenges at full throttle.

The Paradox of Disadvantage Amid Plenty

As a result, the EU is in a paradoxical situation: EU member states have made concerted efforts to provide opportunities for education and training for all young people. History shows that no previous younger generation has been offered such a range of possibilities, and at no time have so many people been involved in formal education and training.

At the same time, there is now shocking evidence showing that large numbers of young people cannot benefit from these possibilities. Preparation for the knowledge society must imply that young people have information about the opportunities that exist for them, and that they are fully prepared to make successful use of them. However, this appears to be the case only for high achievers in our education and training systems, and access is denied to the "difficult" students.

A Harsh World Without Qualifications

"Difficult" students are not yet another minority group. The number of those who are disadvantaged is too large. In the EU, 14 million young people, ages 16 to 24, have no further educational or training qualifications after compulsory education. Five million have not even successfully completed compulsory schooling. This means that about 30 percent of this age group is ill-equipped to compete in a knowledge society (see Table 1 at end of chapter). These young people face a grave risk of exclusion.

Placing these figures in a wider context shows their real significance. Job opportunities for the unqualified are disappearing from the labor market. According to the European Commission (1995), youth unemployment, at a current rate of more than 20 percent in the European Community, is nearly double the average for all age groups. Unemployment among young people is also up to four times higher among those lacking vocational qualifications than it is among their better qualified peers.[2] And in many cases, the combination of unemployment, lack of qualifications, dependence on social security, housing difficulties, and health problems creates a situation in which various disadvantages are mutually reinforced. Thus, the fraction of young people among the 52 million who live at or below subsistence level is increasing rapidly. In addition, young people are a growing proportion of the EU's three million homeless.

For many European countries, redressing this situation feels like a race against the clock. Disadvantage of this kind damages individuals' social and economic prospects, but on this scale it also makes a mockery of the EU's social commitment. For those "locked out" of the world of work, the advantages of the single European market, and the promise of increased prosperity and employment, must now seem quite empty. As the former European Commission President Jacques Delors has put it: "It is the continued existence of our European model of society which is at stake."

Shutting out whole sections of the younger generation is also a risk factor for the medium-term economic development of the EU. Several member-state forecasts already point to a marked shortage of qualified workers in the years ahead.[3] In economic terms, the productivity and development of the EU turn largely on whether disadvantage and exclusion can be halted. On this topic, Jacques Delors has said, "The tensions which the job crisis has revealed show that maintaining social cohesion--and hence the battle against exclusion--is one

precondition for productivity and competitiveness."

A further, highly charged political issue is the dangerous vacuum produced when the transition from school to working life fails to open up a realistic chance for young people to get a job. Would-be agitators exploit this vacuum to preach racism and hatred of foreigners.

The continued exclusion of so many young people also threatens the implicit contract between the generations on which so much social welfare provision is based. A generation that feels rejected by its predecessors is less likely to make adequate provision for subsequent generations.

2. The Educational Challenges of Inclusivity

Against this background, education systems face a double challenge. The first is adapting to the requirements stemming from the unprecedented pace of change, and the second is constructing an education system that offers repeated opportunities for individuals throughout their schooling and working life.

Lifelong Learning

Young people must prepare for a working and adult life marked by permanent transformations and the resulting need for lifelong learning. To acquire, maintain, and update marketable skills, young people must develop a key competency: the capacity to learn as an ongoing, continuous activity. They must also acquire the ability to sense and evaluate their own learning needs, and to plan a process of lifelong learning as a guideline for their own future. The French would call this the development of a *projet de vie*, a life project. Developing these competencies is the first part of the challenge.

Second Chances

The other part of the challenge is to ensure that all young people are given a real opportunity--not a once and for all chance, but recurrent chances throughout their whole school life--to acquire such competencies to the highest possible degree. This opportunity should be offered irrespective of their level of departure, and it should be tailored to different kinds of ability. Not all young people will succeed to the same extent. But all young people will succeed to some extent if the school can create a learning environment in which these basic competencies are not "taught" in the traditional way, but learned.

Recasting the Old Model: Exclude No One

Some of our traditional assessment and certification practices in Europe still seem to imply that no education system can cater to the entire range of human diversity. We see this in the application of normative assessment models. They generate situations in which, for instance, 25 out of every 100 pupils entering compulsory school are immediately able to master our mainly book-based and class-based system of schooling. Most of the others manage to cope with it before they leave secondary school. But the remaining 25-30 percent, as mentioned above, never do so. Do they fail or are they being failed? Some of our assessment and selection models are based on an unstated but intrinsic need for failure in the system. Failures demonstrate to funding authorities and parents that academic standards are being maintained, and act as a latent threat to force pupils to conform to requirements of the schooling process. For those who do not conform, and who then fail to gain access to

mainstream postcompulsory education or the labor market, alternative remedial provision may be seen as the only appropriate solution.

New education and training policies in the EU are challenging this model: For instance, the "Education for All" plan in Denmark offers new ways to qualification for unqualified school-leavers based on a two-year education/training plan individually tailored to the needs of the young people. In each case, the model combines work experience placements, practical training, and periods in mainstream education and training institutions.

Another example is the Youth Employment Guarantee Program in the Netherlands. It aims to encourage and qualify young people to enter the apprenticeship system by offering six-month (renewable) work placements in the public or private sector. The program combines the placements with training, and they are finding that about one-third of the young people have entered a mainstream training course or found work within one year from joining the program. More examples can be provided by other member states.[4]

The EU actively supports national initiatives to better prepare young people for their transition from school-to-work through its new programs in the field of education (the SOCRATES program) and training (the LEONARDO DA VINCI program). They also have helped to develop and implement youth guarantee schemes across the EU in order to ensure that, in time, all young people enter training and employment (the YOUTHSTART Program).[5]

None of these policies questions the need for a complementary provision of alternative or second chance programs. But they aim to ensure that such provision is not used, deliberately or unconsciously, as a dumping ground for young people who are rejected by the mainstream education systems. The protagonists want alternative and second chance programs to reside close to the mainstream institutions, but at the same time to capitalize on the greater flexibility characteristic of alternative provision. It is essential to succeed in these objectives, to both offset the stigmatizing image of such provision and to build bridges for re-entering the mainstream systems.

Models based on a philosophy of failure should also be challenged because they are cynical. In reality, compulsory schooling is often the last organized chance for society to offer some compensation to the disadvantaged, and to help them acquire the capacity to develop a perspective for their life, their *projet de vie*. Thus, schools have not only an opportunity, but a responsibility, to accommodate the needs of those who require special support and consideration.

To meet this responsibility, schools can promote an ethos based on the belief that nobody is excluded once and for all, and that everyone is recoverable. This approach helps develop a pedagogical strategy of success for all pupils. Success in this case is not defined as "winning the competition," but, rather, as generating an environment of solidarity and support. This conception of success demands different forms of teaching and assessment, different ways of organizing the curriculum, and a different focus on the "difficult" pupil as a person. This approach does not categorize the student as an underachiever or a slow learner. It requires a different, more adult relationship between the student and the teacher, tutor, or trainer.

But perhaps the most important requirement is the teacher's attitude and pedagogical approach. Teachers see their main objective as developing in young people the self-esteem and self-confidence they need to make active use of what they learn. Disadvantaged young people with low achievement suffer from the lack of such encouragement. They often feel that, while there may be new chances in work and life, these chances are for

others, not for them. Disadvantaged young people have little opportunity to formulate or enforce their own claims. And society does not provide a guaranteed chance of entry into social and working life from which such self-initiative can develop.

At-Risk Youth and World Class Standards

These principles of inclusion apply to both compulsory education and the postcompulsory stages of vocational education and training. In recent years, vocational education has come under increasing scrutiny concerning the quality of its services. The yardstick in the new situation of global competition is "world class standards." In simple terms, this means the best. But what does "the best" actually mean in relation to those who are at risk of dropping out or of not achieving a recognized qualification?

A short anecdote illustrates this point. In most parts of Germany, and perhaps also in some parts of the United States, buying the right Christmas tree is a very difficult task. It can sometimes take hours because it often involves different members of the family, each with a different set of expectations to be satisfied. The size and shape of the tree must be considered, since it has to fit into the traditional place at home. It must have the right combination of density and width to carry the candles and decorations. And it must be fresh to prevent it from bursting into flames prematurely. Once, my family was in the process of debating the merits of the fifth tree to be considered that day, when a big flashy car pulled into the Christmas tree market. A man in a great hurry jumped out, ran to the checkout, and demanded: "Sell me your best Christmas tree." The salesman looked at him blankly and replied, "Sir, we have hundreds of them." But then the clerk saw his chance and quickly continued: "However, this one beside me is the most expensive." So the deal was made, and both were happy--the customer because he thought he had the best tree, and the salesman because he had sold the first tree at hand at twice the normal price.

The analogy should not be overemphasized. But the task of finding out what is best for disadvantaged young people requires more consideration than that method of buying a Christmas tree. Nations should certainly not be content with the first solution at hand, even if it is the most expensive. Providing access for the disadvantaged to training, employment, and active participation in society requires a whole package of differentiated measures because the types and causes of disadvantage are as varied as the groups affected. Action during compulsory schooling should be aimed at prevention. But, beyond that stage, the emphasis must be on open access to vocational training and on encouraging individuals to participate. Alternative paths to qualification must be opened up within the education and training system, and special parallel support needs to be provided. Teachers, trainers, and counselors need better preparation for these tasks, and priority must be given to raising the status of vocational training.

Making Vocational Training Attractive

All EU member states have postcompulsory vocational education and training systems, offering courses of three to five years' duration, which are separate from upper secondary general education. In the majority of them, but not in all, these systems cater to more than half of all young people enrolled in the postcompulsory stage (with participation rates ranging from 54 percent in France to 80 percent in Germany). They offer students recognized qualifications at the craft, advanced craft, or technician level (see Table 2 at end of chapter). Small- or medium-sized enterprises (SMEs) are particularly dependent on this provision, as they recruit most of their work force from these levels.

However, as elsewhere in the world, many young Europeans and their parents only perceive vocational education and training as a second choice. They tend to prefer the more academic, general education options that open up the route to higher education. In their eyes, a university qualification not only confers a higher social status but also provides better chances of employment, job security, and career perspectives. As a result, we can see that while the overall participation of young people in postcompulsory education or training has been growing steadily in almost all member states, in most of them, the growth in participation in vocational education and training has been significantly lower than in general education (see Table 3 at end of chapter). In addition, demographic changes will sharply reduce the number of young people in the initial training age group. Thus, in order to simply maintain the present number of young people in vocational education and training, an increasing proportion of this age group will need to be attracted to it.

The issue of how to raise the attractiveness of vocational education and training is a priority, both at the level of the EU and in the member states (European Commission, 1993, 1994b; European Commission, Directorate Generale V, 1994). However, the solutions being considered do not point in the direction of merging the general and the vocational education streams. More practical options are being introduced into general education, and a broader curriculum is being used in vocational training, but the tracks remain distinct. Current policy initiatives advocate other approaches to making vocational education more attractive. These include designing a closer correspondence between vocational qualifications and their academic equivalents, creating more flexible pathways to higher education, and developing high-quality vocational education options as an alternative to higher education. Vocational guidance has also been strengthened and broadened. In addition, efforts have been made to relax the rigid regulations that have traditionally linked levels of formal qualifications to status and income. These linkages have had the effect of limiting the prospects of career promotion for many young people with vocational qualifications.

3. Qualifications for All

The European Union and the United States share a deep concern about how to open routes to qualifications for all young people. Schools, training establishments, firms, guidance services, teachers, and trainers must combine forces to reduce school failure and bring vocational qualifications within the reach of many more disadvantaged young people. Youth services and youth organizations can then complement schools' efforts by reaching those who have rejected the mainstream.

Innovation Districts

One method of achieving this goal is through the concept of local or regional "innovation districts." These districts are not necessarily identical to administrative districts of the education system, but they are generally large enough to encompass all the relevant actors and institutions who need to cooperate, yet small enough to enable these actors to work together. The basic idea of such districts is to create new structures for cooperation. It is an undertaking that involves new methods of collaboration, not new institutions. Participants jointly agree on objectives and a work plan that defines the contribution of each actor to achieving these objectives.

This idea of innovation districts is not new, but it is proving to be a good approach. Its appeal lies less in the definition of the concept than in its effective implementation. It exploits the critical importance of local community networks in mobilizing the innovative forces too often constrained by institutional and administrative barriers. Getting such a district network started is not easy. It requires political will at the top, and at the decisionmaking levels in the administration and other establishments, to alleviate fears of losing control of

institutional boundaries. At the operational level, it requires recognition that practical cooperation generates added value and encourages leadership, not dependence.

Several large district projects are currently being planned or implemented in different parts of the EU.[6] One of them that has been started in Germany is the "Innovation District Cologne," which has combatting disadvantage and underqualification as its aims.

Cologne's Innovation District

Cologne covers an area of about one million inhabitants, with all the problems of inner-city deprivation, structural deficiencies, unemployment, and large immigrant groups in need of integration within the community. Many European cities now face similar problems, as do some smaller towns and less densely populated areas. In Cologne, a number of initiatives have attempted to tackle these problems. Financial support has come from many sources, and a number of providers have participated.

In 1994, the administration took the initiative to convene an informal meeting of the key actors and decisionmakers in Cologne. Everyone came with a belief that they had a perfectly clear understanding of the objectives, the beneficiaries, and the funding of all these initiatives. However, the longer the discussion went on, the more it became evident that this was not the case. Participants realized that not only was there some overlap between their activities, but that there were also major gaps. Thus, there was considerable scope for improving provision and achieving synergy at low or no additional cost. This was the starting point for a healthy new development.

Now, a more stable working group is being established at the city government level called the "Innovation Circle." It brings together senior representatives of the Schools Department; the Youth Department; the Labor Office (and its vocational guidance service); and the Chambers of Industry, Commerce, and Craft. Other providers of training, voluntary bodies, and representatives of the regional government also participate. Collaboration between these parties is based on a formal written convention, including a jointly agreed upon set of policy objectives and a plan for action. The primary role of this group is to eliminate administrative and institutional obstacles to innovation and cooperation between different actors in the different local areas of the city. Thus, schools can now work together more flexibly with firms and other institutions, without fear of being in breach of overprescriptive regulations. Decisionmaking is brought closer to the level of action. Other functions of the Innovation Circle include coordination of resources and information, links to the regional environment, and cooperation with parallel initiatives in Germany and other member states. A special unit in Cologne's Schools Department coordinates the work of the Innovation Circle and acts as its secretariat.

At the decentralized level, local projects are encouraged to create and to cooperate in a so-called "Innovation Pool." The pool is a local-area network of projects that tries to put new ideas into practice. Cologne's coordination unit has actively supported such a network in each administrative district of the city. The projects provide a starting point for the dissemination of innovative approaches. The objective is to develop, through networking, a coherent system of education, training, job placement, and other support for disadvantaged young people. The eventual aim is to achieve a *de facto* training guarantee that offers the prospect of employment. These networks link different types of projects, ranging from those concerned with curriculum change or staff development, to initiatives promoting intercultural teaching and combatting racism. Models of good practice resulting from the local projects are gradually transferred into the mainstream education, training, and guidance provision. This has been accomplished through local contact groups, inservice staff training, and information

campaigns. To this end, each Innovation Pool establishes its own tailor-made work program, and designates a representative to participate in the Innovation Circle, which coordinates the overall strategy at the city level.

The first results of this new approach have been encouraging. New working relationships have developed, based on cooperation rather than competition. New learning structures have arisen: Partners listen to each other and learn. They learn from the different clients and target groups, too. These new patterns and structures have enhanced the autonomy of local actors, and strengthened their motivation. The actors enjoy a broadened capacity to create the future by generating new services and a wider range of opportunities for disadvantaged young people.

The Spread of Innovation Districts

Other member states have been developing similar programs: in the region of Fife, Scotland, for instance; and in Coimbra, Portugal; Valles, near Barcelona in Spain; Lyon, France; and Cork, Ireland. It is hoped that these district projects will also find a way to cooperate transnationally, exchanging experience and good practice. Perhaps through their examples, they will encourage further projects of this kind in the EU to fight exclusion and to guarantee access and participation of all young people.

Such hope is not unfounded. A groundswell of concern has been gathering throughout Europe. Exclusion and underprivilege have topped the agenda at all European Council summit conferences since 1993. Two new EU education and training programs--SOCRATES and LEONARDO DA VINCI--offer a solid infrastructure for new action in favor of the disadvantaged. They took effect in January 1995 and are complementary to the EMPLOYMENT Community initiatives and its YOUTHSTART strand (European Commission, 1994a).

4. Conclusion

In the European Union, a significant number of young people are ill-equipped to compete in the labor market. Therefore, they do not have access to all the material and social benefits of a job, and present a real threat to the values and the cohesion of the European model of society.

Along with other services, education and training providers are engaged in a race against the clock to redress this situation. Europe needs education policies, and a whole new educational ethos, based on the belief that nobody is excluded once and for all, and everyone is recoverable. This strategy for success must also be reflected in the implementation of flexible alternative and second chance programs as close as possible to, and preferably within, the mainstream systems.

The innovation districts mentioned above can be the incubators for such developments. They can also coordinate local resources and EU funding to support the needs of disadvantaged young people. In addition, the networking of such districts, and the encouragement of cooperation between them, may lead to a more rapid spread of innovative and successful working methods. District projects can also contribute to the effectiveness of national programs aimed at disadvantaged young people such as Youthreach in Ireland, the "Education for All" plan in Denmark, and the Youth Training and Work Guarantee scheme in the Netherlands. If all this happens, education and training in Europe may actually stand a chance of winning the race against the clock.

Table 1

Young People (16-24) Who Have Left the Education/Training System Without a Formal Qualification

	Year	Without ANY Formal Qualitication (in %)	With No Qualification Beyond Compusory Education (in %)	Total (in %)
Belgium	1992			
Demark	1990	7	18	25
Germany	1990	6	8	14
Greece				
Spain	1992	7	33	40
France	1989	15		
Ireland	1991	9		
Italy	1991			
Luxembourg	1988	10	35	45
Netherlands	1992			
Portugal	1991	30	10	40
United Kingdom	1990	10		
Europe		10	20	30
	Total	4.7 million	9.4 million	14.1 million
Source:European Commission estimates based on national data				

Table 2
Young People in Postcompulsory Education, Training, and Apprenticeships, 1991

	Total (in '000)	General Education (in %)	Vocational Education and Training, Apprenticeships (in %)
Belgium	619	42	58
Demark	222	33	67
Germany	2.563	20	80
Greece(1)	397	79	21
Spain	2.879	64	36
France	2.497	46	54
Ireland	161	78	22

Italy	2.856	29	71
Luxembourg	12		
Netherlands	748	30	70
Portugal	321	83	17
United Kingdom	3.917	80	20
Europe(12)	17.192	51	49
Japan		72	28
United States		70-75	25-30
Source:European Commission estimates based on EUROSTAT and OECO data (figures for 1990, not including apprenticeship)			

Table 3
Changes in Participation of Young People (Ages 16 & 17) in Education and Training (in % of Age Group)

	Years of Comparison	General Education	Vocational Education and Training	Total Increase
Belgium	1986/91			+4.5
Demark	1986/90	-1.5	+2.5	+1.0
Germany	1986/90	+4.5	-4.5	+0.0
Greece	1986/90	+5.0	+2.0	+7.0
Spain	1986/90	+3.5	-0.5	+3.0
France	1986/91			+5.0
Ireland	1986/90	+9.5	-1.5	+8.0
Italy	1988/91	+1.0	+5.0	+6.0
Luxembourg				
Netherlands	1986/89	+1.0	+0.0	+1.0
Portugal	1988/90	+6.5	+2.0	+8.5
United Kingdom	1987/90	+4.0	+5.0	+9.0
Source:European Commission estimates based on EUROSTAT and OECO data				

Endnotes

* Director, PETRA Youth Bureau, Brussels; and since May 1995, Director of the European Office for Programme Support for the Community Initiatives "Adaptation of the Work Force to Industrial Change (ADAPT)" and "EMPLOYMENT and Development of Human Resources."

1 Such networks of pilot projects covering a wide range of specific thematic areas were implemented in the

framework of two major European initiatives:

(1) European Community Action Programme on the transition of young people from education to adult and working life (Transition Programme, 1978-1987)

(2) European Community Action Programme for the vocational training of young people and their preparation for adult and working life (PETRA, 1988-1994)

Further information on these programmes, thematic publications, and evaluation reports is available from the European Commission, Directorate Generale XXII--Education, Training and Youth, Rue de la Loi 200, B--1049 Brussels.

2 Estimates based on data from national reports (e.g., Ministère de l'éducation nationale--direction de l'évaluation et de la perspective, 1992; Department of Enterprise and Employment [Ireland], 1993).

3 For example, there has been a marked shortage in certain branches of the craft sector in Germany, and in the construction industry in Belgium. For a general overview on skill shortages, see Industrial Research and Development Advisory Committee of the European Commission (IRDAC) (1991) and European Commission, Task Force Human Resources, Education, Training and Youth (1992).

4 For a general overview, see European Commission (1994a, 1995).

5 SOCRATES

* See Council Decision 819/95/EC (1995), which establishes an action programme for the implementation of a European Community education policy.

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* See Council Decision 94/819/EC (1994), which establishes an action programme for the implementation of a European Community vocational training policy. Also see European Commission, Directorate Generale XXII (1995a, 1995b).

YOUTHSTART

* YOUTHSTART is one of the strands of the Community Initiative on EMPLOYMENT and Development of Human Resources. See European Commission, Community Structural Funds (1994), p. 60; European Commission, Directorate Generale V (1994, 1995).

6 See *The District Approach to the Prevention and Remediation of School Failure, 1995*--joint report prepared for the European Commission by seven district projects (involving projects in Germany, France, Ireland, Portugal, Spain, and the United Kingdom). Available from the European Commission, Directorate Generale XXII, Rue de la Loi 200, B--1049 Brussels.

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Section IV

Local Leadership

Chapter 8
Creating New Partnerships To Bridge the Gap Between Education and Work

Robert Poczik *

In the spirit of the "New Visions" theme of this conference, this chapter will begin by offering a new vision of the interconnectedness of work and learning, and will close with a new vision of the learning enterprise. In between it will identify and explore new partnerships to bridge the gap between education and work.

1. A New Vision of the Interconnectedness of Work and Learning

As Willard Wirtz, former U.S. Secretary of Labor, once said, "There are not two worlds--education and work--there is one world--life." As the United States begins to implement the new federal School-to-Work Opportunities Act in the United States, it needs to develop a new vision of the interconnectedness of work and learning. The nation needs to stop thinking of schools as buildings, of education as a system, and of the acquisition of knowledge and skills as preparation for life after school. Learning must be thought of as a natural act--as natural as breathing. Societies cannot live without learning. As long as humans live and breathe, they learn.

In a parallel way, there is a need to stop thinking of workplaces as factories and offices, and of a job or career as a necessary means of supporting oneself after leaving school and before retirement. Work should be thought of as a natural act--as natural as breathing. As long as humans live and breathe, they work.

Learning has been placed inside the system of education, and work inside the system of employment. In the process, they have been disconnected and have been robbed of much of their natural vitality. To work is to do something outside of oneself--to create something in relation to others. Work enables us to move beyond isolation and alienation and into relationship with the larger community. To learn is to understand the world and

our place in it--to figure things out. Learning is a joyous act that gives meaning to our existence.

Though Americans have categorized and effectively separated them, work and learning in their natural states are interconnected. To work, we need to figure things out. We learn naturally in the course of working. To learn something, we need to try it out, to apply it, to see if it works. If we did not expend so much energy trying to organize things to keep work and learning apart, housing them in separate institutions, they could infuse each other with their purpose and energy. How do we keep them apart?

Policymakers in the United States set up schools in buildings with classrooms and laboratories that are designed to impart knowledge and skills. They set education apart from the rest of the life of the community, which is organized around work. Laws and

*requirements keep young persons in school as long as is considered feasible. If young people leave before completing their secondary education, they and the school are deemed to have failed. If they work while they are going to school, it is considered a necessary evil that detracts from the really important thing--their education.

In the workplace, employers would like young workers to come to them as fully prepared as possible, so that they can get right to work. These young workers are then expected to learn quickly on the job. From time to time, training programs are run for workers, though this is deemed to be a necessary and costly evil that detracts from the really important thing--getting the work done.

Nations need to envision new ways of integrating learning and work that revitalize both schools and workplaces and help young persons to better prepare for work and careers in the emerging global economy. To do this, they will have to create new partnerships to bridge the gap between education and work. And to bridge this gap, they will first need to bridge gaps within education and gaps within the workplace.

2. Bridging the Gaps

Bridging Gaps Within Education

When policymakers speak of creating partnerships between education and work, they sometimes speak as if education were a single entity, and it certainly is not. The American secondary school system consists of a series of quite unrelated disciplines taught as separate school subjects. Though there has been much effort in recent years to integrate vocational and academic education, it is a difficult process for many reasons, not the least of which is that there is no unified academic curriculum. Thus, vocational educators need to reach out and build individual connections with mathematics, with science, with English, and with social studies faculty, who themselves have not built connections among their separate disciplines.

Unless such connections are developed among the separate disciplines around some central and unifying themes or tasks, students themselves are left to integrate their learning in the various disciplines in the school curriculum. This is a great deal to ask of young learners who lack the life experiences that provide a context for adult learners. The late Ernest Boyer (1993), perhaps one of the most visionary educational leaders in America, suggested that the school curriculum be organized around certain "core commonalities," including the life cycle, the use of symbols, the arts, and work. In relation to the world of work, learning could be organized around the exploration of career options and the preparation for work.

The task of integrating vocational and academic education around common themes is made difficult by the superior status afforded in the American educational system to academic subjects. Vocational education, no matter how rigorous its coursework and no matter how many of its graduates continue their education at the postsecondary level, is seen by academic educators at both the secondary and postsecondary levels as an inferior course of study. A clear indication of this difference in status is the difficulty encountered in state after state gaining acceptance for courses of applied academics offered under Tech Prep education (Hull, 1994, p. 127).

The issue of status in the American educational system that makes it difficult to integrate learning on a horizontal basis across disciplines, also makes it difficult to integrate learning on a vertical basis from elementary to middle, to secondary, and to postsecondary education. Unfortunately, each higher level of education accords a lower status to the level which precedes it. Again, with reference to Tech Prep education, faculty at postsecondary institutions often bring to joint curriculum planning with secondary educators a sense of superiority that poses an impediment which such joint planning must then strive to overcome. This lack of vertical integration becomes a serious impediment to preparing young persons for work and careers because it makes it difficult to lay a foundation of career awareness and workplace readiness skills in the early years of schooling.

This same issue of status within the educational system also makes it difficult for alternative learning programs, summer job programs, programs for dropouts under the federal Job Training Partnership Act, and adult education programs to connect with regular school programs. This is unfortunate because programs that exist on the fringes of a system, as do vocational education, alternative education, dropout programs, and adult education, have the most vital and real connections with the world that exists outside the school. By not according respect to these programs and taking from them features to include in the regular school program, students are deprived of new ways of learning that reflect current and emerging workplace requirements.

A last issue to be touched upon within education involves the relationship between school administrators and teachers represented by teachers' unions. Unless there is a healthy relationship between school administrators and teachers' unions in which decisions regarding the operation of schools are made jointly, it will prove difficult, if not impossible, to move toward new teaching arrangements that will be necessary to bridge the gap between education and work. To offer work-based learning opportunities, teachers will have to spend a good deal of time outside schools in work sites arranging for work experiences and supervising students engaged in such work experiences. If teachers through teachers' unions are engaged in designing such work-based learning opportunities, it makes it a good deal more likely they will willingly engage in the new teaching arrangements needed to implement them.

Bridging Gaps Within the Workplace

When educators speak of creating partnerships between education and work, they sometimes speak as if the workplace were a single entity, and it certainly is not. In the United States, there is a huge number and enormous variety of employers and, due to the constant flux of the marketplace, a different mix of employers each year. Of these employers, less than one percent employ more than 500 persons. Nearly 90 percent employ fewer than twenty persons. There are enormous differences between the needs, interests, and resources of the smallest employers and the largest.

Within these employers, public sector employers are not usually considered part of the "business community," though they often employ large numbers of individuals. In New York State, for example, 18 percent of the work

force is employed in public sector organizations, including schools, colleges, prisons, and government. There is a gap between public sector and private sector employers, who do not often meet and deal with each other on the basis of being employers.

Further complicating the workplace is the relationship between management and organized labor, who are not always united. It becomes critical in building bridges between education and work to fully include organized labor in joint program design and operation. This is especially critical because of the natural concern on the part of existing workers that students in the workplace could be taking work away from adult workers, especially in areas of the country and in industries where there are high levels of unemployment. This issue has come up in recent years in relation to the establishment of youth apprenticeship programs in the United States.

Bridging Gaps Between Education and the Workplace

To engage the participation of employers, both large and small and both public and private, as well as organized labor, representatives of the workplace need to be included in all stages of planning, implementing, and evaluating programs which connect learning and work to prepare persons for the work force.

This full involvement of workplace partners in educational programs that connect learning and work needs to begin at the earliest design phase. Workplace representatives need to help to establish learner outcomes and standards that form the basis of the school curriculum. There is a natural concern on the part of educators that employers might seek to reduce education to preparing students narrowly for employment in a particular job, and that such narrow preparation would not be consistent with the broader mission of education. Experience indicates that this fear is not well-founded. In school district after school district that has reached out to employers to help define learning outcomes and standards, the experience has been a positive one. Educators and employers have united to produce learner outcomes that prepare students both for productive employment and for effective participation in all aspects of adult life. In doing so, they have discovered that the attributes of good citizenship and a commitment to rigorous and continuous learning stand a student well in the workplace and in other aspects of life, including the pursuit of further education.

Based on these learner outcomes and standards, educators and employers can then jointly design ways of restructuring education so that students can engage in a mix of school-based and work-based learning. To implement new programs which blend learning experiences in school with those in the workplace, teachers will need time to work with workplace representatives to design instructional activities that use workplace experiences to help students learn; practice; and apply knowledge, skills, and habits of learning and working. Employers will need to designate workplace mentors who will work with students at work sites to help them relate their workplace experiences to what is being learned in school. It will be one of the responsibilities of the education and workplace partners to make time available for teachers and workplace mentors to carry out these important roles.

Such new programs will require flexibility in both the schedules of the workplace and of the participating schools. Leaders in education and in the employer community will need to ensure that both school and work schedules are modified.

To engage in such program design, implementation, evaluation, and continuous improvement, it will be necessary to establish partnerships which are well-organized and operate reliably over extended periods of time. This means that some form of ongoing organizational and governance structure will need to be created, codified,

and maintained. Since partnership efforts take a good deal of time and effort on the part of the participants, it is important for partnerships to be clear about the results they will strive to achieve. Further, it is important for the partners to achieve some positive outcomes relatively early in the partnership process in order to build commitment to the ongoing and longer-term work of the partnership.

The Missing Partners: Parents and Students

Efforts to bridge the gap between education and work will fail unless parents and students are committed to those efforts. And yet parents and students are often unrepresented in such partnership efforts. One of the most forward-looking aspects of the new School-to-Work Opportunities Act is having parents and students serve as members of local partnerships responsible for local school-to-work programs.

From the perspective of parents, they are generally interested in their sons and daughters pursuing the highest level of education. They encourage this pursuit of higher education based on the belief that the higher the level of education achieved, the more successful their sons and daughters will be in adult life. Parents can be expected to resist work and career-oriented options if they believe they have lower social status and will lead to lower lifetime earnings.

Working against the involvement of parents is the diminishing participation of parents in school activities as children move from elementary school into middle school and high school. A new study of the American family found that by the time students reach high school, nearly half of them have parents who do not participate in any school activities (Zill & Nord, 1994). In order to actively involve parents in career exploration and planning with their sons and daughters, it appears that we will have to begin this process in the elementary grades while there is still a high level of parent participation, and then devise strategies to keep parents engaged in the process of career planning and preparation as their sons and daughters move into middle and secondary education.

From the perspective of students, they are also generally interested in pursuing further education in the belief that it will open up better employment and career opportunities. What is less clear is the connection they see between what they are learning in school and work. We do know that somewhere between 60 and 80 percent of American high school students work for pay after school, on weekends, or in the summer. Most of these students do not see a great deal of connection between the work they do outside school and the learning that occurs in school.

A nationwide survey of 14- to 18-year-olds conducted by Bruskin Goldring Research in 1994 at the request of the U.S. Departments of Education and Labor revealed an interest on the part of students in new ways of learning that link what is taught in school with work. The following were among the highlights of the survey:

- 95 percent of teenagers said they were interested in a new program where they could "learn both in school and on a job."
- 89 percent of teenagers said school would be more interesting if academic courses were taught around careers in which they were interested.
- 67 percent of teenagers said school would be more interesting if part of learning could be done at work.

From the perspective of both parents and students, they are likely to resist any efforts which force students to

make a career choice before they feel ready to do so, which narrow rather than expand options, and which make it difficult to change a chosen course of preparation at a later date. Both parents and students will be interested in expanded options, flexibility, and transferability of skills learned in one career option to another. Partnerships which design programs to connect education with work would be well-advised to include parents and students in the design of such programs so that their interests and concerns are well-represented.

The Interplay Between Horizontal and Vertical Partnerships

Most of the discussion to this point has dealt with horizontal partnerships--that is, partners coming together within a given geographic area to bridge the gap between education and work. There is, however, a significant vertical partnership--the one among the local, state, and national levels.

At the national level, the federal government, through its policies and legislation, can encourage schools and employers to work together. The federal government can also effectively model behavior that it would like to see occur at the local and state levels. A clear example of this is the very positive joint effort underway at the national level between the U.S. Departments of Education and Labor in support of school-to-work efforts. This positive joint effort makes it more likely that state departments of education and labor, local employment service offices, and schools will work together to put in place school-to-work systems.

Also at the national level, leadership can be demonstrated by national organizations that are nongovernmental in nature. Positive labor-management cooperation can be promoted when national business organizations and national labor organizations join forces in support of efforts which connect education with the workplace. Leadership at the national level can also be of critical importance in bridging gaps within education between work-oriented and academic education.

In this vertical partnership, it is vitally important that local partnerships influence state-level policies and legislation, and that both local- and state-level partnerships influence federal-level policies and legislation. This communication from practitioners and implementers to policymakers and designers of legislation can ensure that there is "top down support for bottom up reform."

3. A New Vision of the Learning Enterprise

We need to begin to prepare for the 21st century by envisioning and creating new learning enterprises. A learning enterprise could take many forms, but would have as its core attribute that learning would occur naturally in the course of real work. This means that learning would not take the form of prior education or training in which a person was prepared to carry out a new form or process of work. Rather, the very nature of work itself would develop in those carrying out the abilities needed to perform it, as well as to improve it. This means that those carrying out work would need to be given the responsibility, authority, and access to resources needed to carry it out. It would be the responsibility of those engaged in the work to improve their own knowledge, skills, and habits of work and learning in relation to the work. Such learning enterprises could be characterized as high-performance work organizations. I will put forth two ideas for how schools might transform themselves into learning enterprises.

First, schools might acknowledge to themselves, to the communities they serve, and to their students that they are, in fact, enterprises. Schools are businesses. They have employees, unions, executives, budgets, retirement plans, and boards of directors. Schools are the first workplace to which students are exposed, and I suspect

schools may have a deep and lasting effect on the attitude of students toward work. Why not envision schools as a student's first exposure to a workplace, and education as an opportunity for students to experience work on a continuing basis as they are growing up?

Schools, faced with limited budgets and more work than can be carried out by existing staff, might consider appropriate ways for students to begin to assume some degree of responsibility for operating schools. Students could serve as tutors, as teaching assistants, and as recordkeepers. They could help with the business operations of schools in terms of answering telephones, helping with correspondence, and assisting with bookkeeping and accounting. It seems to me that there are a number of jobs that students could perform in schools that would not take work away from the existing staff, but, rather, would free that staff to do more creative, developmental work. Such work on the part of staff might include designing and managing work-based learning opportunities at work sites, working with employers to establish learner outcomes and standards, and designing instructional and assessment strategies that integrate learning and work.

Second, schools might choose to overcome what seems to me to be a central problem of secondary schools as we have created them. We put too many young people together in one place with too few adults to work with them. This constitutes an unnatural ratio of young people to adults, and it occurs in no other aspect of community life. With students in their teenage years, such massing of students can often lead to disruptive behavior and even situations of violence. Might it not be more sensible to educate smaller numbers of teenage students mixed in with adults on a full-time basis in real settings in the community? We might envision secondary-level education being offered in actual workplaces that would be redesigned to accommodate such learning.

These learning workplaces or learning enterprises would combine learning and working for students, and working and learning for the workers. We could think of the students as "learner-workers" and the regular employees as "worker-learners." Might not both young learners and adult workers profit from participating in a workplace that blended learning and working in the course of carrying out its business? Could we imagine teenage students being placed in cohorts of say 50 or 100 in workplaces? Might we not be able to tap the collective wisdom and imagination of employers, workers, teachers, students, and parents to create the Learning Airport, the Learning Factory, the Learning Office, the Learning Hospital, the Learning Government Agency, and the Learning Shopping Mall? If we did this, might we not find fresh ways of re-inventing and re-engineering both learning and work that could revitalize and re-energize both education and the workplace?

I end with a question posed by Ernest Boyer (1993):

> What does it mean to be an educated person? It means respecting the miracle of life. It means being empowered in the use of language. It means responding aesthetically to the aesthetic. Being truly educated means understanding our membership in groups and institutions. It means having reverence for the natural world. It means affirming the dignity of work and, above all, being an educated person means being guided by values and beliefs and connecting the lessons of the classroom to the realities of life.

Those in government, education, business, and labor need to work together in effective and productive partnerships at all levels so that the system helps to develop educated persons who connect what they are learning in school to the realities of life.

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Chapter 9
European Experience with Local Training Partnerships for Global Competition

Richard Walther*

Discussion of the "European experience" in local training partnerships is no easy task due to the complexity and diversity of individual member states' situations and cultures. In fact, the wide variety of local training partnerships observed in different member states has itself been a source of inspiration for the development of a European vocational training policy. The best practices in each country can provide lessons and examples for all European nations. Furthermore, juxtaposing this discussion of European practice with United States experience leads to a useful exercise in mutual exchange, and provides a sense of shared future challenges and perspectives.

Local training partnerships have become a policy priority in the European Union. This trend reflects a trans-European belief that training is a critical determinant of international competitiveness. Partnerships represent one promising solution to a conflict that has dogged European vocational training efforts for many years. Policymakers recognize that small, local companies are often the most innovative and responsive to local conditions, but they also know only national governments have the resources, information, and international awareness to respond effectively to global changes in economic conditions.

Local partnerships constitute one of the best means for reducing this tension between national governments pursuing national economic goals and local actors who know their local economy's skill and qualification requirements. The conflict is potentially greater in an ever-widening European Union. It is therefore essential that EU policies are based on a critical appraisal of the success of particular types of partnerships. Only then can they be adapted for implementation at the EU level. Three criteria can be applied in such an appraisal: (1) the extent of participation of relevant local and regional training experts, (2) the degree of the partnership's labor market responsiveness, and (3) its success in providing a continuum of lifelong training services.

It is clear that local partnerships alone are not enough. They must be assisted by national and multinational governmental bodies in meeting international class standards. Exposure to international conditions will enhance a local partnership's ability to participate in the modernization and innovation taking place in international industry. And it will help them to develop qualification systems that enhance the "portability" of skills and mobility of workers. One of the prevalent European partnership models is the regional training consortium. It strikes a reasonable balance between national needs and local innovation.

The 1994 European Commission White Paper entitled *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century* identified how Europe should move into the 21st century and covered the overall contribution that training partnerships should make. The White Paper prescribed that training partnerships should

- envision new ways of integrating work and learning that revitalize both. Help make companies more competitive in European and world markets by raising workers' skills and qualification levels.
- devise training which directly helps people and companies adapt rapidly to industrial change.
- help forecast and anticipate those changes.
- provide training on a regional basis that helps both new entrants to the labor market and older adults stay flexible and mobile in the same marketplace.
- create training programs for emerging occupations and new jobs.

1. Local Partnerships Fostered by the European Community

The European Commission talks a lot about European economic problems: the drop in growth from four percent a year to about 2.5 percent, a drop of five percent in investment rates, and the increase in unemployment from eighteen million to about twenty million by 2000. The European Commission argues that it is essential to undertake economic, technological, and structural actions that will help Europe regain a competitive position with Japan and the United States.

Jacques Delors, the former President of the European Commission, has often talked about the challenges Europeans are facing and the possible consequences of Europe's present position. He has argued that all these economic, technological, and structural responses are likely to fail unless they support a new idea about society as a whole--the concept of the "active society."

This notion of an "active society" is best described in the Preamble to the White Paper as

> [a key means of reconciling] the aims pursued by society (work as a factor of social integration, equality of opportunity) and the requirements of the economy (competitiveness and job creation). . . . Revival requires a society driven by citizens who are aware of their own responsibilities and imbued with a spirit of solidarity towards those with whom they form local and national communities--communities that are so rich in history and in their common feeling of belonging.

In the history of education and training in the United States, the concept of "responsible citizenship" has equal

importance to that of "productive employment," and also emerges from a similar tradition. The tradition in Europe is somewhat different: Economic efficiency rests primarily on the capacity of individuals, but above all, it depends on associations, or groups of partners, acting together in the service of common objectives.

It is in supporting this concept of the active society, of cooperation among partners, and of innovation, that the European Community has launched a number of programs and community initiatives since the beginning of the 1980s. All help to create real local training partnerships. There are two main types of training programs: those run by the European Social Fund (briefly discussed below) and community action programs (which are the main focus of this paper). The original impetus for the latter comes from Article 128 of the Treaty of Rome (now covered and expanded by Article 127 of the Treaty of Maastricht) and to Council Decision 63/266/EEC of 2 April 1963 laying down general principles implementing a common vocational training policy. The bulk of these programs were launched after 1985.[1]

Community Training and Development Partnerships

The European Social Fund has played a vital initiating role in training and development partnerships in many European regions (Council Regulation No 2052/88, 1988, p. 9; Council Regulation EEC No 2081/93, 20.7.1993, 1993, p. 5). Since 1981, the European Social Fund has launched eleven rolling training and development programs in eleven different regions of the member states. These programs have brought together training practitioners, people active in development, and people looking for jobs. The European Social Fund has focused on industrial areas confronted by change, and on the poorer rural areas in Europe.

These partnerships came up with the concept of *formation-développement* (Senault, 1988)--training as a means of economic development.

The spirit of this *formation-développement* can be captured in five main themes:

47. Training-development has to take into account the overall problems of a region or an area.

48. It has to support the guidelines for local economic development.

49. It has to concern, if possible, the majority of the population, with priority given to training local and regional developers.

50. The content of training has to be defined by analyzing the levels of skills and qualifications of the target population.

51. The training must be implemented through local partnerships among training providers and between the training providers and others active in regional development.

Over and above the details of each of these experiences, this approach to training suggests a promising pathway for redirecting a region's training activities in direct relation to its economic development priorities.

University/Enterprise Training Partnerships

In 1985, the European Community launched the COMETT Program (Council Decision 86/365/EEC, 1986, p. 17; Council Decision 89/27/EEC, 1988; European Commission, 1993). It was concerned with cooperation,

especially at a regional level, between universities and people from industry. The purpose was to transfer the results of research to companies, and to do it as rapidly as possible. The vehicle for the transfer was to be training, which was established as a first priority for those individuals with responsibility for applying the new technologies in companies.

These University Enterprise Training Partnerships (UETPs), as they are called, now total 202. They are situated inside organizations directly involved in regional development--Regional Development Agencies and Regional Technology Centers--or within regional government bodies. They are also implanted in organizations that bring together companies, like chambers of commerce and industry, or centers for company and enterprise development.

The activities of these UETPs at the regional level have largely served to demonstrate two significant local problems. The first problem is that there are very serious skill shortages, and that they are widespread. The second is that, generally speaking, training provision is poorly adapted to real market needs.

The UETPs have therefore helped to set up an enormous number of training courses. On the one hand, they have involved universities in new fields of economic development in their regions, and on the other hand they have offered companies the chance to improve the qualifications of their workers and expose themselves to the most productive working methods and techniques.

The Local and Regional Partnerships in the FORCE Program

The European Community launched the FORCE Program in 1991.[2] It has brought a new element to the concept of local training partnerships--"regional continuing training consortia." Within the consortia, large and small companies and, in particular, groups of companies, play the leading role. This is a unique hallmark of the FORCE Program.

The first priority of these consortia is to analyze the needs of companies and workers as local labor markets change, and as industries change their processes of production, technology, and work organization. The product of this is a very close diagnosis of the training content, equipment, and methods necessary for workers to develop and advance within their current jobs. It also aids their mobility to seek other jobs, perhaps in other areas.

These consortia are equally concerned with doing everything necessary to create the circumstances in which existing training facilities can be shared within a locality. They do not stop at current facilities and resources--they are also, where possible, concerned with creating new structures between companies. These structures allow their resources to be committed to better training of local workers and to generating a more competitive edge among local companies.

For instance, training consortia exist in order to identify the training needs of small- and medium-sized enterprises (SMEs) in the rural peripheral regions of Europe, and to prompt the development of materials to train the managers and owners of small companies in a Euro-region. They are also serving to maintain employment by raising the qualification and skill levels of workers and to train Euro-advisors in local or regional development.

2. Emerging Local and Regional Partnerships in Individual Member

States

Many local and regional partnerships have benefited from the momentum created by the EU programs and initiatives. New local and regional partnerships are now emerging in individual member states, both because of national policy development and EU encouragement. Each of the partnerships discussed in this section reflects a common model: the regional training consortium. As regional bodies, they serve as an interface between national government and all those engaged in local and regional development.[3]

This role as "interface" creates organizations that can respond to the changing skill requirements facing the particular regions concerned. The industrial, technological, cultural, and social changes are too complex to be efficiently understood by one agency or by one type of organization alone. The overall nature and the complexity of the concept of change needs to be analyzed, identified, and taken into account through working collaboration between the various people active at the regional level. Adaptation to change can also be facilitated by partnerships establishing new frontiers between education and training, between initial and continuing training, and between training and research.

The German Case--The Learning Region[4]

In Germany, they are debating how the partners in training and qualifications in local commutation areas and in the regions (the *Länder*) can best form cooperating networks to deal with the complexity and rapidity of industrial change. Their idea of a learning region is not just one of getting together all the high-level expertise in a given place. Their concern is to build the maximum number of links between all those who are active on the local training market, whoever they are and whatever their status.

Their focus is on the employment and innovation potential of small companies; and their effect is to establish partnerships between small companies, training providers, social partners, and public authorities. The goal is to establish at one and the same time an approach to improving skills and qualifications, and an effort to identify new jobs.

At the same time, the ultimate purpose of these learning regions is to consolidate and augment the local economic infrastructure. In fact, the concept of the learning region finally makes sense in the desire of companies themselves to develop a capacity for training and the means to deliver it. Thus, they become true learning enterprises.

The guidelines for setting up ways to implement learning region structures are listed below. They were developed through a study of different regional experiences. A learning region needs to do the following:

- Improve the management skills in its companies in order to invent new types of production (procedures and work organization).
- Improve the capacity of the region to define its own economic and social industry through networking inside and outside the region.
- Explore new ways of financing innovative regional projects and of interpreting training actions in an overall regional plan.

- Give SMEs special regional means to help them become professionals in information, organization, and quality policies.

- Integrate the training and qualification measures for young people and workers in a context jointly defined with the relevant people at company and regional levels.

The British Case: The TECs

The British TECs (Training and Enterprise Councils) (Employment Department, 1994), like the German learning regions, are a means of bringing together local players. In this case, the British government has specified that these organizations be led by boards largely comprised of heads of companies. It is no secret that British Employment Ministers have paid a great deal of attention to some of America's experiences with Private Industry Councils, and have tried to structure the TECs to reflect some of that.

These TECs, numbering more than 80 in England and Wales (with a parallel system of just over 20 in Scotland), deliver government training programs at a local level. Their primary focus is to involve companies of all sizes in this operation, but also to help cater to the specific training needs of small companies.

In doing this they are tied fairly strictly to a number of government rules. Companies must train their employees in such a way that their skills can be recognized by the new national qualification structure--the National Vocational Qualifications. Government money is tied to training that is recognized in this way, and all young people's training is now structured in order to conform to its various levels of qualification.

The government has also exerted pressure on companies to become what are called "Investors in People"--employers who can demonstrate in a number of approved ways that they regularly train their workers, maintain a training plan, and evaluate the results of training. They must also consciously identify economic and commercial objectives for their training. Companies that provide subcontracted services for the TECs--the local private training sector--are required to become Investors in People. If they do not acquire this form of accreditation within a certain time, they can no longer tender for new work.

The TECs also carry out regular analyses on the evolution of the local labor market, and they provide the results to the Department of Employment and integrate these results into their own planning. These analyses are used specifically to justify their planning of the work they carry out in order to help stimulate job and business formation and to train unemployed men and women to re-enter the labor market.

The Italian Case: The Ente Bilaterale (Contractual Entity)

The Italian case (Isfol Strumenti e recerche, 1994) is quite different from either the German or the British. In Italy, the new partnerships growing up in regional training are being created by the "social partners"--the employers and the trade unions.

Established by agreement in 1993, the Italian joint bodies, for the moment just established as experiments in Piedmont and Lombardy, have the task of creating a new dynamic at the regional level by

- analyzing companies' and workers' practical training needs and by focusing the provision of training on them.

- establishing new kinds of training using on- and off-the-job elements (the French word for it is *alternance*). This is being provided both for young people and for adapting adult training to companies' needs.

- defining new training content and means of delivery with companies and the existing training organizations.

The contractual entities, which are led in each case by twelve employers' and trade union representatives, are in the process of showing that it is possible to create a new regional approach on the basis of a partnership between the social partners.

3. The Interdependence of Local and National Training Partnerships

How do we know if local and regional partnerships are accomplishing their intended purposes? Why are they the center of international policy attention now? And why is a national, and even more to the point, transnational influence on local training providers warranted? To understand the evolving role and importance of partnerships in Europe, each of these questions deserves careful attention.

Assessing the Effectiveness of Local and Regional Partnerships

Current experience, as much in the various European Community programs as in those of the member states, suggests three principle yardsticks for measuring the capacity of various partnerships to set up innovative activities.

The first of these criteria is the extent to which local and regional training experts are involved. Experience from the EU shows that only partnerships capable of bringing together the widest range of local operators, including public authorities, companies, unions, and training and expert bodies, are truly capable of integrating training and qualification initiatives at the heart of local development policies.

The second criterion for innovation relates to the manner in which these partnerships make the supply of training dependent on the demand for it. Here again, European experience shows consortia that analyze the training and qualification needs of companies and individuals in the local labor market are the best suited to defining the most responsive content, setting, and approach for training.

The final criterion for innovation concerns the way in which these partnerships develop the interface between initial and continuing training and technological transfer. Those which play this role--applying what the new European training program, LEONARDO DA VINCI (Council Decision 94/819/EC, 1994), calls the principle of *continuum*--are the ones which become truly effective in comparative terms and in terms of the jobs they create. Today, it is no longer possible to talk in isolation about young people's transition to work, the employability of adults, or the adaptation to new technologies of workers in companies undergoing change. The partnerships emerging in Europe are beginning to take into account the need to involve the whole vocational training field closely in both the analysis of the key issues and in the implementation of training policies and initiatives.

The Common Motivation for Partnerships

These partnerships are of all different types, but they share a common reality, which is the increasingly strong movement among European countries and regions to address themselves to common objectives. These objectives have developed as the EU has progressed. The most recent articulation has been provided in the White Paper on *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century* and in the Common Position of the Council of Ministers on the future LEONARDO DA VINCI action program. The principles can be summed up in a few sentences:

- Investment in the training and qualification of young people and of workers in companies is a key element in the success of our internal market and, in particular, in the social and economic identity of Europe at the dawn of the Third Millennium.

- The competitiveness of companies depends on their willingness to put human resources at the very heart of their development strategies.

- Only lifelong learning and training allows people and companies, and the localities and regions, to be able to adapt permanently and progressively to industrial change.

Lifelong learning is a process that has become a permanent aspect of economic life, and the need for it will be urgent and persistent. It is the key element in tackling unemployment, as well as in enabling individuals to blossom and fulfil themselves--and thus improve their own prospects of lifelong employability.

These common convictions, which have been defined and negotiated between the member states and the social partners, are the springboards for launching innovative local training partnerships.

Complementarity, not Conflict, between Local and Transnational Realities

The Technical Assistance Office of the FORCE Program has had recent experience with 720 promoters of FORCE projects and 6,000 partners. They have been able to observe and analyze the kinds of cooperation taking place, not just inside local partnerships, but *between* the partners in the EU member states. From their perspective, crossnational comparisons are *crucial* for the development of all local training initiatives.

Partnerships need to be confronted with the training and qualification realities of other countries and other regions. They will then be able to judge the performance of their local training efforts in a broader context, and enrich their training system by drawing on the experience of others, both colleagues and competitors.

If a partnership incorporates aspects of other nations' training standards into its own program, these changes may give program participants access to the most advanced innovations in a common training and qualification area and to qualifications which are more readily transferable--in American parlance, *portable skills*. Because of the increasingly global nature of markets, training and learning must become a world, rather than just a European, reality.

As a consequence, the idea of a transnational exchange and transfer networks between local training partnerships seems to be one of the most effective means of preparing ourselves for skill and training needs induced by the constant change which is affecting everyone. Only such a global network can prepare young people and adults for a world in which competition, and hopefully also cooperation, will become a reality on both sides of the Atlantic.

Endnotes

* At the time of writing, the author was Director of the Technical Assistance Office for the European Union's FORCE Program. He is now Director of the Technical Assistance for the European Union's LEONARDO DA VINCI Program.

1 For a summary, see *EC Education and Training Programmes 1986-1992, Results and Achievements: An Overview* (1993).

2 See Council Decision 90/267/EEC (1990), p. 1; and European Commission (1994), notably Part B, The Interim Evaluation of FORCE, Conclusions and Recommendations, the Tavistock Institute, Groupe Quaternaire, and the Dansk Teknologisk Institut.

3 *The `Tableau de Bord' on Continuing Vocational Training* (European Commission, FORCE Program, 1994) provides information *inter alia* relevant structure in all the former twelve member states of the EU.

4 See Chapter 2.4, "Die `LERNENDE REGION' als Modell für regionale Entwicklung," *LERNENDE REGION, Kooperationen zur Verbindung von Bildung und Beschaftigüng in Europa* (1994). This publication also includes articles in English.

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Section V

Small- and Medium-Sized Enterprises

Chapter 10
The Challenge of Involving Small- and Medium-Sized Businesses in Tech Prep and School-to-Work Initiatives

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When engaging small- and medium-sized enterprises (SMEs) in comprehensive school-to-work programs, local communities face both challenges and opportunities. These challenges must be overcome in order to tap the potential of SMEs because, for most regions, they represent the key to successful school-to-work initiatives,

both educationally and economically. SMEs play a critical role in the economic vitality of their communities; they have the potential to provide both the number and the diversity of student placements necessary to sustain viable school-to-work programs.

This chapter will examine SMEs in the context of one local area's efforts to create a comprehensive school-to-work program. Thus, the chapter will begin by providing some background information on the organization I represent, the Partnership for Academic and Career Education, and then will discuss the set of school-to-work programs we have been developing since the mid-1980s. Every local and state school-to-work effort faces the challenge of recruiting SMEs to its programs, and the lessons we have learned in South Carolina may be instructive to other places in America, as well as to our European counterparts.

1. Creating an Administrative Partnership for School-to-Work: PACE

The Partnership for Academic and Career Education (PACE) is the administrative entity and cornerstone of school-to-work efforts in the northwestern corner of South Carolina. It is a consortium of seven school districts, the region's technical college, and numerous businesses and industries. It serves a three county region. PACE was established by local business and education leaders as a vehicle for facilitating improved collaboration among diverse partners in order to solve common problems.

This region of South Carolina faced an educational challenge that was confronting much of the United States: too many students failing to complete high school or finishing without the necessary skills for meaningful employment, and insufficient numbers of technical college graduates to meet the demand of employers who were seeking more skilled workers and technicians. Clearly, the education provided to the large numbers of high school students not immediately bound for postsecondary study had to become more rigorous and relevant. To meet this challenge, the local educators (including the technical college president and school superintendents) and employers formed the PACE Consortium in 1987. PACE is now one of 16 consortia throughout the state, involving all 91 public school districts and the state's 16 technical colleges. The pressure to meet the demands of employers for skilled workers was considerable in 1987, and has been increasing ever since. The South Carolina economy has become more diversified, and a number of new companies have chosen to locate in the northwestern part of the state.

PACE's primary function is to act as an intermediary between public schools, business and industry, and higher education for the purpose of facilitating the development of Tech Prep and school-to-work programs. The PACE Consortium office is staffed by four professionals and three support persons, and is located on the campus of Tri-County Technical College.

2. School-to-Work Programs in the PACE Consortium

Tech Prep in the PACE Consortium

Early in 1978, PACE began to develop Tech Prep programs in response to the need of educators to retain more students through both high school and postsecondary programs, and to meet the need of employers for more skilled technicians. Tech Prep involves enhanced academic study, focused vocational study, improved guidance and counseling, and opportunities for advanced standing in related postsecondary programs. (See Winifred Warnat's chapter in this volume for a full discussion of Tech Prep.) Three years after PACE Consortium sites

began implementing Tech Prep programs, the federal government passed legislation and provided seed money to encourage the development of similar programs throughout the United States.

Over the past seven years, the PACE Consortium's approach to Tech Prep has become very comprehensive, and area businesses have become increasingly involved in all aspects of the initiative. Local programs emphasize reform of curriculum and teaching beginning in grade nine, and diverse opportunities for work-based learning experiences. The programs also focus on improved transition in both curriculum and guidance at the elementary and middle school levels, and on improved transfer opportunities from technology programs at the community college level into related baccalaureate majors.

Tech Prep, or "Preparation for Technologies" in PACE parlance, prepares students academically and vocationally for mid-level technology careers--the types of careers that require a high school diploma with postsecondary vocational training up to a two-year associate degree.[1] The focus is on increasing the level and rigor of the high school curriculum, and on helping students reach higher standards by using more active learning strategies. These teaching methods include more relevant and contextual learning activities, many of which are designed collaboratively with area employers. The approach to Tech Prep includes a purposeful blending of vocational and academic coursework, and more recently it has begun to emphasize the linking of classroom learning with learning that occurs in the workplace. Tech Prep programs begin in the ninth grade and progress sequentially through two years of postsecondary study, although students have the opportunity to stop at the end of their senior year in high school and enter meaningful employment. Some students choose to do this and continue their education with tuition assistance provided by their employers.

In the PACE Consortium, Tech Prep at the high school level also includes improved career guidance and planning, which is preceded at earlier levels of schooling by career awareness and exploration activities. Part of the guidance program at the high school level includes helping students plan for advanced standing opportunities during postsecondary study. These advanced standing opportunities, developed as part of the Tech Prep initiative, enable qualified high school seniors to receive credit for technical college courses, or to take courses on the college campus to help smooth the transition into postsecondary study. In addition, PACE is now working with a local university to expand these advanced standing options from high school through the two-year college and into selected baccalaureate degree majors.

Because the PACE approach to Tech Prep focuses on preparation for careers in industrial/engineering technology, health and human services, and business technologies, it also emphasizes reform in curriculum and teaching on the community college level as well. For the past seven years, faculty at Tri-County Technical College have been working to link their curricula more effectively with secondary programs. They have also been improving their instructional methods to emphasize active learning, teamwork, problem solving, and the use of technology. Tri-County Technical College has concentrated on expanding the technology content in associate degree programs through implementing a computer-integrated manufacturing teaching model, designing advanced certificate programs, and integrating core technical and academic competencies throughout all degree programs. These developments at the community college demonstrate that in northwestern South Carolina, Tech Prep involves not only improvements in curriculum and teaching at the secondary level, but purposeful and complementary changes at the postsecondary level as well.

Youth Apprenticeship in the PACE Consortium

Perhaps the most impressive element of PACE's approach to Tech Prep is the linking of classroom and work-

based learning. The Tri-County Technical College has been involved in adult apprenticeship and cooperative education for over a decade, and the public schools have also run co-op programs for many years. But local co-op programs have traditionally been relatively short-term learning experiences (one or two semesters) that reinforce aspects of the vocational curriculum by concentrating on specific tasks routinely performed by the full-time employee as part of his or her daily responsibilities. While co-op programs provide an important option for gaining work experience, PACE is now in the process of blending and expanding these opportunities, particularly through a youth apprenticeship approach. Youth apprenticeship is a highly structured program integrating school-based and work-based learning that begins in high school and concludes with completion of an associate degree. In these programs, the work-based learning component increases in scope and sophistication throughout the program and requires exposure to broad elements of the industry. Local youth apprenticeship programs are designed collaboratively by teams of employers, public school educators, technical college representatives, and PACE Consortium office staff. No union representatives have participated in developing these programs thus far because the companies involved are non-unionized, a common situation in the northwestern part of South Carolina. (One of the key differences between locally developed youth apprenticeship programs and those registered with the Bureau of Apprenticeship and Training/U.S. Department of Labor is the specification of competencies in youth apprenticeship. Registered programs use a contact hours approach.)

In 1994, the PACE youth apprenticeship program produced its first graduate. The student began the program during his senior year and finished with an associate degree and three years of structured work-based learning. Currently, PACE sites are operating seven youth apprenticeship programs involving two school districts, seventeen businesses, and two technical colleges. Two additional school districts have collaboratively initiated a new program in electromechanical technology with a large manufacturing company and Tri-County Technical College.

For local schools, Tech Prep and youth apprenticeship programs have been a perfect complement for one another. Tech Prep's emphasis on strong vocational and academic skills (including technology skills, teamwork, and problem solving), combined with a focus on clear career goals and educational planning, provides a solid foundation for youth apprenticeship. The unique features of youth apprenticeship, particularly the emphasis on workplace learning, then provides students with opportunities to broaden their experiences in ways that could never be achieved by classroom learning alone. While youth apprenticeship is only one of many work-based learning options now available in the PACE Consortium, it represents the most sophisticated expansion of PACE's original concept. It also corresponds most closely with the federal School-to-Work Opportunities Act signed into law by President Clinton in May of 1994.

3. Involving Employers in Tech Prep and School-to-Work

There are four key aspects to the problem of engaging business in school-to-work programs: (1) attracting firms of various sizes, (2) devising methods for deepening business involvement, (3) dealing with the unique challenges of working with SMEs, and (4) charting future links with employers.

PACE works with employers representing about 80 businesses throughout the three counties served by the PACE Consortium. The nature of the relationship varies from firm to firm, but all the involvement relates directly to the planning, development, and implementation of Tech Prep and school-to-work programs. Obviously, many more businesses are involved with other aspects of public schools and the technical college, but for clarity, only their involvement with Tech Prep and school-to-work will be discussed here. And, critically,

only one of the businesses that works with PACE in any capacity is unionized. In fact, in the three counties served by PACE, only one private sector business has a labor union.

The PACE staff and educators work with a broad spectrum of businesses, including large internationally owned manufacturing companies, like Michelin Tire and the Robert Bosch Corporation, as well as SMEs, including banks, local machining companies, and service agencies. To date, most of the PACE youth apprenticeship programs have been developed with large companies, but smaller firms have participated, and they are expected to do much more in the near future. (As a reference point, small businesses are those employing up to 50 employees, and medium-sized businesses are those employing between 50 and 250 persons.)

Levels of Business Involvement in School-to-Work

The nature of PACE involvement with businesses, including SMEs, has varied, but has tended to concentrate in six main areas. Ranked in order, from simplest to most significant levels of involvement, these areas include the following:

63. providing input to curriculum content

64. sponsoring specialized student projects for applied academics and/or vocational classes

65. promoting and marketing programs

66. hosting student activities for career exploration and awareness

67. participating in teacher training and staff development

68. co-sponsoring youth apprenticeship and other structured work-based learning programs

Business involvement in these six areas has had a significant impact on Tech Prep programs. The public school districts, Tri-County Technical College, and the PACE Consortium office all use a variety of committee structures and employer assessments to solicit input from area businesses on the content and quality of curriculum programs. This is not a new policy, but PACE has intensified efforts to involve employers directly in what is taught in various courses, and how it is taught.

Curriculum Content

In the area of supplemental curriculum materials, PACE has developed eleven teaching modules with input from numerous employers. These modules focus on specific academic concepts such as algebra, trigonometry, and communication using applications from local companies. The employer provides the "real world" context, including forms or documents from the business, which high school teachers use to set up specific assignments or projects for students. The PACE staff takes the material and publishes it in booklet form to be used in the classroom. Also included in the module is information on the company and available career opportunities.

Student Projects

Within the past couple of years, the PACE office has tried to do more in the area of involving businesses in providing "real world" learning projects for students. One recent example involved a small bank in a local town.

The bank was planning to implement a new check imaging process and wanted to introduce the concept to consumers. PACE brought together a group of high school vocational and academic teachers with the bank's vice president to develop a project that would benefit the students as well as the bank. The students spent several classes learning about the process and doing background research. They ultimately wrote and designed a brochure for the bank's customers.

Marketing School-to-Work Programs

Businesses throughout the PACE Consortium have also been involved in helping market Tech Prep and school-to-work programs to students, parents, and the community. Business leaders from companies of all sizes have helped both the PACE Consortium and local districts develop effective brochures and videos by providing testimonials in print and on tape. This type of public support has helped build credibility for the initiative with students and parents, and has also served to encourage other businesses to get involved.

Career Exploration

Even from the early days of the PACE Consortium, area businesses have participated in activities to help students become more aware of career opportunities, and to learn more about local companies. Dozens of businesspeople participate in the PACE Consortium's speakers guide project, assist with career day programs, and host groups of students for tours of their facilities. All seven districts have launched expanded shadowing programs, which have placed hundreds of students in area companies for a day of intensive career exploration.

Staff Development

Teacher training and staff development efforts require the second greatest amount of employer commitment and involvement. Each year, the PACE Consortium offers up to five teacher training courses, all of which feature considerable involvement from business partners. For example, in training designed to familiarize teachers with new applied academics courses and active learning techniques, roundtable discussions are held between teachers and technicians employed by area companies. These discussions provide teachers with an upfront examination of how academic concepts are used in various mid-level technology positions. The teachers then use what they have learned to design learning projects for students.

In the summer of 1992, the PACE Consortium offered its first teacher internship program collaboratively with six area companies, most of which were medium-sized facilities affiliated with larger regional or international corporations. This eight-week, paid internship required teachers to perform meaningful work for the companies and required employers to provide teachers with exposure to the major components of their businesses. Teachers in turn developed classroom materials and activities based on their summer experiences. PACE plans to offer more summer internship programs for up to twenty vocational and academic teachers from both the public schools and Tri-County Technical College.

Providing Work-Based Learning, Co-Ops, and Apprenticeships

While all types of employer participation have been important, the most influential and comprehensive type has involved linking classroom and workplace learning. In addition to youth apprenticeship, work-based learning options include coordinated co-ops, a registered apprenticeship program with the Robert Bosch Corporation, and a technical scholars program with Michelin Tire Corporation and the Milliken Company.

Coordinated co-ops begin with a traditional co-op assignment for high school seniors studying machining, which then continues through completion of an associate degree in machine tool technology. The student typically stays with the same company for the entire time, and receives tuition assistance for postsecondary study from the employer as well as incremental salary increases. The coordinated co-op option has been functioning for four years between one secondary career center, Tri-County Technical College, and a consortium of eight small machining companies. The primary difference between coordinated co-ops and youth apprenticeship is that the co-op option does not involve the sophisticated integration of classroom and workplace instruction that is found in youth apprenticeship.

The adult apprenticeship program with the Robert Bosch Corporation is the PACE Consortium's most employer-driven approach, and results in journeyworker certification through the U.S. Department of Labor and an associate degree in engineering technology. Students in this program are full-time Bosch employees, who combine twenty hours of work each week with approximately twenty hours of classroom and work-based learning. Representatives from Bosch and Tri-County Technical College have worked with area high schools to help explain the program to students and their parents. Typically, the company selects about twelve students each year to participate. Of the twelve, only a few are recent high school graduates. (Because this program was not conceived expressly as a youth program, many applicants were full-time Bosch employees. As a result, most of the individuals selected were members of the company's current work force.) The PACE Consortium is now working with representatives from Bosch and two area school districts to design a youth apprenticeship program based on the company's current model for adults.

Like Bosch's current apprenticeship program for adults, the Technical Scholars option requires students to be high school graduates. Technical Scholars functions like a traditional co-op experience for students who are in the second year of an associate degree program in engineering technology.

As these examples illustrate, PACE enjoys a fairly extensive base of employer involvement in its Tech Prep and school-to-work initiatives, and this base has continued to evolve over the past seven years. Developing this type of involvement has not always been easy, and it is something that requires constant attention to maintain.

4. Strategies for Attracting Small- and Medium-Sized Enterprises to School-to-Work

The most important tool for recruiting employers has been offering them a choice about how deeply to become involved in the Tech Prep and school-to-work initiatives. They can choose something as simple as being a guest speaker or as complex as being a key partner in developing a youth apprenticeship program.

This range of options is a particularly important outreach strategy for SMEs. Many of them are hesitant at first to commit large amounts of time and effort. Even if the initial involvement is superficial, once the communication structures are in place, and there is a successful track record, more sophisticated types of involvement often develop.

In its coordinated co-op option, the PACE Consortium has helped small companies form a consortium, or alliance, to develop work-based learning programs. As mentioned above, the coordinated co-op focus on machining is a direct result of Bosch's first apprenticeship program in machine tool technology. While Bosch could afford to sponsor a full class of twelve students, the smaller companies could not. By bringing employers

from small companies together, PACE discovered these employers could jointly sponsor a full class. They could then exert more influence over how Tri-County Technical College scheduled courses and the nature of projects stressed within the curriculum. By bringing the high schools into the process and articulating the high school and technical college curricula to provide advanced standing opportunities, employers from small companies were able to hire associate degree-level technicians in less than the normal three-year time frame. In addition, those graduates ultimately gained a clear understanding of their sponsoring company's operational preferences, and developed feelings of loyalty to that company, neither of which would have been possible to the same degree in a traditional program.

Large Companies Encourage SME Participation

Larger companies can be effective allies in helping to sell the concept of youth apprenticeship and work-based learning to SMEs. PACE's coordinated co-op option became popular after representatives from Bosch met with a group of employers from smaller companies to explain the nature and benefits of the program. The PACE Consortium has used the same approach in developing youth apprenticeship programs and in encouraging SMEs to participate in exploratory activities like job shadowing. All employers, regardless of their involvement in Tech Prep and school-to-work, are encouraged to share their experiences with colleagues, and to help get the word out through personnel associations and other networks.

Larger companies may also encourage broader employer participation in youth apprenticeship by sharing their facilities and other resources with smaller, noncompeting companies. One of PACE's large employer partners is currently considering this option to help expand sponsorship for one of the new youth apprenticeship initiatives.

The Obstacles to SME Involvement

The perception endures that SMEs will not be willing participants in school-to-work initiatives. Probably the simplest and most direct suggestion for involving SMEs was recently expressed by one of PACE's business partners. As a senior vice-president for a medium-sized textile manufacturing company, his suggestion was, "Just ask them." While his company has provided youth apprenticeships for two years, he acknowledges that his degree of involvement is somewhat unique. Nonetheless, he maintains that others would participate willingly if asked; however, they are often not asked, and they seldom volunteer.

Several obstacles block SME participation in the more sophisticated elements of Tech Prep and school-to-work (especially the youth apprenticeship options). In some respects, the suggestion to "just ask them" is logical, but the answer is more complex. One of the challenges is overcoming a mindset, which may differ for educators and employers, but which generates essentially the same outcome--a bias against SME involvement.

The Educator's Perspective

Educators tend to feel a certain amount of pressure to make these work-based learning options available to as many students as possible, as quickly as possible. They tend to believe that larger companies can make that happen. This interest in placing as many students as possible in the fewest number of sites has its roots, however, in some very practical concerns for educators. For one thing, it takes an immense amount of work and planning time just to create and supervise one meaningful placement, and most districts have only a single coordinator to assist with this process. In rural South Carolina, transportation for students can be a big problem, especially at the high school level, so the smaller the number of participating companies, the easier the whole

process is to manage.

Educators also believe that larger companies have more familiarity with specialized training programs and, therefore, may be more receptive to modifying or designing options to include school-aged youth. In addition, educators tend to believe that larger companies enjoy a higher profile in the community than smaller companies, so to secure their involvement would lend prestige and credibility, which might in turn encourage other companies to participate.

Educators also worry that SMEs may be less able to absorb the various costs of participating--that they might find covering the student's wages more difficult, and that assigning a full-time employee to supervise and mentor the student might be prohibitive for them. All these factors contribute to a hesitancy on the part of educators to approach SMEs, especially in an area like northwestern South Carolina where there are a number of large companies.

The Employer's Perspective

Employers, on the other hand, seem to have their own mindset problem. In many cases, SMEs are willing to participate, but may hesitate because of perceived--or actual--limitations. For some companies, the issue of paying a student's wages, even at a minimum level, is definitely a problem. Along with paying wages, other challenges for small employers can result from dealing with the burden of extra paperwork, various regulations, and insurance.

In other cases, there are concerns about taking a productive employee and diverting that person's attention to the training and mentoring of an inexperienced youth. Conversely, in some situations, a few smaller companies participated in order to find good part-time employees rather than entering into a partnership for the mutual benefit of both business and education.

Employers from SMEs also seem particularly sensitive to the impact that production slowdowns and layoffs might have on their ability to participate in school-to-work options. As one textile company staff person recently said, "It's impossible to lay off full-time workers and keep your youth apprenticeship students, no matter how much you would like to be able to do it." If the business climate appears too uneven, or if employers have not been able to support youth apprentices over a reasonable period of time, eventually both the employers and the educators will lose interest.

Another problem for SMEs is the fear of the "free rider." After the firm trains and nurtures the student for several years, another firm hires the young worker away, with a better paying job with more benefits. The second firm gets a well-trained worker without the expense of doing the training, thus discouraging the SME from investing in training.

The presence of preconceived ideas on the part of both educators and employers can create a type of inertia when it comes to SMEs. While some of these preconceived ideas may be based on a lack of information and experience in youth programs, others are based on a clear grasp of reality. In any case, there are workable solutions, some of which can be accomplished locally, and others which will require intervention from government and other sources.

Successful Strategies for Working with SMEs

As is true in many other issues, the most important solution may be simply to create dialogue, try various approaches, share results, and refine strategies. PACE has employed this approach successfully for seven years. A positive experience and good information are often very effective ways to overcome fear, inertia, and preconceived ideas. On the other hand, there are also specific actions that school-to-work consortia must take to ensure that SMEs will have a positive experience, and that other employers will want to join them in sponsoring school-to-work programs.

The concept of alliances, or consortia of small employers, has great potential. This approach has been used successfully in a few areas, and it may be possible to take related actions like organizing training assignments so students rotate through multiple businesses, or varying the length of training in order to meet the needs of employers.

PACE also works with other agencies such as the countywide business and education partnership organizations to improve the information and outreach systems for SMEs. This approach should make it easier for businesses to learn about school-to-work and to begin their involvement in whatever way they feel is best for their company. Along that line, it is becoming more and more important for the PACE initiative, and others like it, to collaborate with community agencies and organizations in order to maximize effort and resources. For example, chambers of commerce will play an increasingly important role as intermediaries in helping to make connections with SMEs.

Program coordinators must also improve the way they communicate and work with SMEs, and that is one of the priorities in the PACE Consortium. For example, in order to address some of the preconceived notions about school-to-work, the PACE Consortium is trying to help employers understand how participating can be a benefit, not a burden. Because many smaller companies cannot compete with the wages paid by the larger firms, especially in some of the technical fields, the opportunity to instill an element of loyalty in a younger worker over several years can have important benefits.

Students who have learned and benefited from developing a close relationship with their company may be less likely to fall victim to the "free rider" syndrome, at least for some period of time after graduation. In an area like northwestern South Carolina, where unemployment rates range between three and six percent, employers value such loyalty. However, in order to help ensure that type of outcome, school personnel and the employer must work very carefully to make a good "match" between the youth apprentice and the company. Also, as more students enter the upper levels of the youth apprenticeship program, PACE staff members hope these individuals can help with some of the mentoring and supervision of entry-level assignments given to the new apprentices, thereby reducing the attention required by the company's full-time workers.

For very small businesses, with only a proprietor and one or two employees, participation in school-to-work programs will depend on two factors. First, the overhead required to sponsor a student must be absolutely minimal, or the effort will overshadow the potential benefit. And second, the student must be able to perform some type of meaningful work with a limited amount of mentoring and direct supervision from the employer. Because small business owners often assume many duties, work long hours, and typically feel overextended, their ability to participate in any long-term types of training for youth will require extra attention and support.

Right now, PACE has few inducements to offer to potential business partners, regardless of whether those companies are small, medium, or large. The majority of the participating businesses got involved, at least in the beginning, for altruistic rather than business-related reasons. Some have come to appreciate and support a long-

range vision for developing their future work force, but others are still only tenuously involved. In order to develop the type of commitment necessary to sustain this effort for the long term, and on a much broader scale, employers will need more than just a chance to be a good community partner or the potential for gaining a few well-trained workers.

Incentives for SME Participation

PACE staff members have had numerous conversations with employers from SMEs to try and determine what type of incentives would encourage them to participate. While far from an extensive or scientific process, the discussions have been enlightening. For example, employers' reactions to tax incentives thus far seem lukewarm, mostly due to a concern that more regulations and paperwork would ensue. Some employers have noted that the less overhead required to support a youth apprentice, the greater the chance that employers will get involved.

The most popular potential incentive, at least among SMEs, is the idea of receiving training vouchers or credits in exchange for sponsoring a youth apprentice. Again, in very limited and informal discussions about this option, employers seem to like the idea that they could use these credits to obtain adult basic education through local school districts or the technical college, or to send current workers for specialized training, credit coursework, or continuing education at the college. If the state were to implement some type of credit system, it might also help encourage a stronger appreciation on the part of some employers for the importance of training and retraining.

Several employers have commented that they would be interested in having an intermediary agency handle the details associated with wages, insurance, and other types of overhead that take so much effort for them to deal with. While PACE has not encountered any employers unwilling to pay the wages, some smaller companies have expressed frustration in dealing with the process. This is an important point for SMEs who may have lean staffs. Any unnecessary frustration may be enough to convince them that their participation is not worth the effort.

Another factor which might help strengthen employer involvement, both initially and in the long-term, would be to have businesses generate and disseminate the information about school-to-work programs. In other words, if employers are approached only by educators, but receive no complementary messages from their own communication networks, they are more likely to view the initiative as something good for education rather than for business. On a local level, when employers in northwestern South Carolina talk to other employers about getting involved, it is often much more effective than when educators speak alone. On a state level, the South Carolina Chamber of Commerce's Business Center for Excellence in Education has endorsed the concept in a task force report sent to businesses across the state. Still, there have been few other statewide efforts, and there is room for improvement.

5. The Need for State and Federal Involvement

While there are many things local programs can do to encourage businesses of all sizes to participate in the school-to-work initiative, our nation's ability to create a new, broad-based climate for this concept will be slow and fragmented without support from the state and federal levels. In order to be effective, Tech Prep and school-to-work must be an integrated system of partnerships and structures on all levels which complement and support one another. The type of support that state and federal levels provide must be designed carefully, with much

input from practitioners, so that their "help" does not result in burdensome regulations that strangle creativity and initiative at the local level.

Since 1987 when the PACE Consortium was formed, the seven school districts and Tri-County Technical College have learned a great deal about balancing collaboration with the need to maintain autonomy. With the advent of state and federal school-to-work legislation, however, the PACE Consortium has realized that its approach to collaboration between the educational institutions themselves, and between education and business must become even more sophisticated if the program is to survive and thrive. As state- and federal-level support structures are implemented, local partnerships must be ready to respond effectively and move forward. The school-to-work concept is certainly not "business as usual" for either educators or employers, and this presents many challenges for both groups.

6. The Next Challenges for School-to-Work: Implementation and Going to Scale

To advance the school-to-work concept on a broad scale, two significant problems must be addressed. First, the implementation of school-to-work is endangered by a geographical mismatch between consortium partners. School districts operate within tightly defined service areas, while many medium- and large-sized businesses often hire regionally and see their market as encompassing many districts.

Conflicts can occur when schools want businesses within their service area to accept only their students for school-to-work opportunities, while the businesses may prefer to sponsor the best-qualified students, regardless of where the students' home schools are located. Those same businesses may also not want to be perceived by other regional districts (which undoubtedly enroll the children of many of their employees) as being unwilling to provide them with reasonable access to resources and opportunities.

Second, demand for work-based learning opportunities may outstrip the supply. In northwestern South Carolina, there has been an explosive growth of interest by school districts in collaborating with area employers to offer job shadowing and youth apprenticeship opportunities. Soon, potentially thousands of students could be seeking work-based learning experiences. The relationship between supply and demand is not as simple, however, as matching the number of students to the number of potential slots within local businesses. The problem lies not in how many student placements businesses could support, but, rather, in how many they would support, assuming that the necessary infrastructure exists. For example, a complex interaction of many factors influences whether or not a company actually sponsors the maximum number of students that they could support (e.g., the perception of whether or not school-to-work is an investment or a community service, the level of commitment by key company officials, an estimation of the company's long-range financial situation, and the capacity to provide adequate student supervision without lowering productivity of current employees to an unacceptable level). In addition, if schools are not adequately staffed with personnel who can cultivate and monitor placements, businesses are unlikely to aggressively pursue the maximum number of work-based learning opportunities. The combination of these two problems--geographic mismatching and unbalanced supply and demand--illustrate the potential for confusion and disappointment.

In order to address these challenges, PACE has been working since March 1993 to develop a "cross-site collaboration policy." When completed, this policy will delineate communication and procedural guidelines to help all the education partners, secondary and postsecondary, work more effectively with each other and with

area employers to implement a variety of work-based learning options. The policy will cover the need to use common definitions when addressing employer and community groups about school-to-work options and basic procedures for designing youth apprenticeship programs that involve multiple districts and companies. In addition, the policy will provide streamlined methods of coordinating contacts with prospective employer partners so that businesses are initially approached by one individual who represents the entire consortium. This cross-site collaboration policy, when completed, will move the PACE initiative from a district-defined approach to a true regional approach.

Addressing the challenge of having an adequate supply of work-based learning slots for the demand is something that PACE sites recognize will require a long-term, multifaceted approach. Among the strategies currently used is improving the school-based coordination and outreach in order to cultivate and maintain greater numbers of student placements, particularly in SMEs. Another strategy is encouraging more interaction between current and prospective business sponsors in order to build wider acceptance for the idea that school-to-work is an investment rather than simply a community service. And finally, PACE staff have been taking every opportunity to work with state officials and committees in order to help develop better state systems, incentive opportunities, and support structures which will translate into maximum opportunities for student placements at the local level.

The Role of SMEs in Implementing and Expanding School-to-Work

The active involvement of SMEs in Tech Prep and school-to-work programs is imperative if we are to accomplish the outcomes we desire for students, employers, and our communities. This involvement of SMEs is critical both educationally and economically. SMEs hold great potential for providing the necessary quantity and diversity of work-based learning experiences and can contribute significantly to the economic vitality of the communities in which they are located. The key to this involvement rests on a combination of effective local partnerships, state and national level support, and the commitment of employers themselves. If the American initiatives in school-to-work are to be successful, we must collectively overcome our desire for quick results and devote ourselves to carefully and methodically building a new way of doing business in education and a new way of educating through work.

Endnotes

* At the time of writing, the author was Executive Director, Partnership for Academic and Career Education, South Carolina. She is now Assistant to the President for Enrollment Management and Retention at Tri-County Technical College, South Carolina.

1 An associate degree is a degree awarded by a two-year community college or technical college indicating that the graduate has completed a program of study with a broad base in general education and a concentration in a specific area. The degree may be in an occupational area (such as electronics) or in liberal arts (such as an associate degree in science or arts). Occupational associate degrees, often called associate of applied science degrees, are widely accepted by employers as credentials signifying career readiness, but may not provide maximum transfer opportunities to four-year colleges. Associate of arts and associate of science degrees are generally recognized as credentials for transfer to four-year colleges and universities, often fulfilling the first half of requirements for a four-year university degree.

Chapter 11
The Dual System and Qualification Needs of Small- and Medium-Sized Enterprises

Bernhard Buck*

Diana Walter, in her chapter in this volume, provides a fascinating example of how American small- and medium-sized enterprises (SMEs) are involved in an educational project at the community level. San Diego conference participants saw a similar example of a local training program serving SMEs when they visited the Center for Applied Competitive Technologies at San Diego City College. San Diego City College is deeply committed to the foundation and promotion of SMEs.

In presenting a European perspective on SMEs, this chapter takes a less complex approach because it addresses only training in SMEs and not economic development. It also focuses on the experience of one particular member state in the European Union: Germany. Since one of the overarching issues in Germany is the relationship between the German system of initial vocational preparation and the content and methods of training employed by the SMEs, the chapter adopts a structural approach. Is the level of competency attained adequate for the needs of SMEs; and, just as important, does it meet the expectations of young people?

1. The Qualification Needs of SMEs Within the Dual System

To begin an examination of German SMEs and training, it is worth noting that in 1994, Germany celebrated the 25th anniversary of its Vocational Training Act. The act is sometimes called "the Constitution" because it lays down the foundation of modern vocational education and training (VET) in Germany: the Dual System.

Vocational Education and Training Within the Dual System

The details of the structure of the Dual System are well-known beyond Germany's borders, and lie beyond the scope of this paper (Dettke & Weil, 1992). It has long enjoyed a favorable reputation in the United States and is frequently the subject of contributions to American VET literature. In short, the Dual System combines governmental responsibility for structure, contents, and development with responsibility of the social partners (employers' organizations and unions) for the planning of VET. The Dual System is also built on the companies' responsibility for carrying out the training.

The principles inherited by the Dual System are much older than 25 years. They are deeply rooted in the traditional apprenticeship of the crafts. Its main feature has always been the connection between learning and working. So, with respect to the topic of training and the SMEs, there is a tradition in Germany that gives SMEs the opportunity to bring learning and working together to be a learning enterprise in the sense that Robert Poczik mentions in his chapter.

Industry adopted the apprenticeship system of the crafts, which Germany still maintains today. But as industry's

needs evolved, there was a reduction in learning-in-the-working process, and an introduction of a systematic VET in training workshops. A training workshop of an industrial company is an independently organized unit removed from the normal work context. Its purpose is to convey the knowledge and skills necessary for the respective training occupation.

VET is viewed as a process governed by rules, an approach that can transfer the necessary skills as long as the teaching and learning process is planned in detail, efficiently run, and closely monitored. This traditional industrial form of vocational training customarily formulates corresponding teaching goals based on operationalized qualification requirements.

Meanwhile, it has also become common practice in the crafts to take the training out of the normal work context for a period of time, and to organize it in intercompany training centers. There, trainees are introduced to the particular skills required by current training regulations which cannot be provided by every company. In addition, the intercompany training centers currently undertake important further training tasks such as training the trainers of SMEs.[1]

German unification challenged the Dual System to integrate a VET system which was based on a big company-structured state economy with only four to five thousand training facilities. This economic structure faded away after the unification in favor of an SME-structured market economy with perhaps 130,000 to 170,000 companies, which must be prepared to train. Additionally, a decision was made, in principle, to change from a two-year training system toward a three-year Dual System.

A consequence of this transition process has been that the newly emerging SMEs of Eastern Germany are not able to provide a sufficient supply of training places. To bridge this deficit, the federal government and the individual states recently decided to fund 12,000 additional noncompany training places. Naturally, there is a danger in this action. The Dual System might suffer insofar as companies, which are generally willing to train, may be kept from that training by the program itself. The key question is whether the program will create a structure that develops its own life.

2. Qualification and Work Organization

The shift of VET from the normal work context toward central VET facilities has led to a system of learning independent of the workplace. Supporters of this shift have argued that the workplace denies sufficient learning opportunities and that systematic training provision "at the spot" is nearly impossible. The reasons are found in the characteristic aspects of modern work processes: the nontransparency of work processes, the difficult structures of responsibility, various dangers, the complexity of equipment and systems, and the speed and intensity of work. Modern work processes, it appears, do not leave much scope for providing learning experiences. The result is that even in the Dual System, educators often can only speak of "phases" of in-company training by the trainees. The problems of learning in real situations within the companies are complicated by the fact that the first priority of the employees who have to train the trainees is their work task--and not training the trainees. This trend toward systematic, off-site training raises two key questions. First, with specific respect to SMEs, there is a question as to whether systematic, off-site training is adequate for smaller employers' needs. But there is also a second and broader question about the Dual System in general: There is emerging concern that this mode of learning and qualification may not fulfill modern education and training needs.

The Organization of Work in SMEs

Three quarters of all employees in Western Germany work in SMEs. Between 1977 and 1991 more than 80 percent of the 3.3 million new jobs in Western Germany were created by SMEs. And in 1991, 99.7 percent of the SMEs had less than 500 employees. Also, 80 to 85 percent of all training contracts are signed with SMEs.

Work is being done to order for an individual customer. Most of these companies are customer-oriented, from the beginning to the end of the work task. This "order and customer-related" work is seen as the distinctive characteristic of crafts and SMEs. There are some important aspects of this kind of work:

- As mentioned above, the company does not produce for a mass market but for a known customer.
- Products and services are geared to the changing individual wishes of the customer.
- The fulfilling of the individual customer's wishes may require the ability to tailor a solution to fit the particular circumstances.
- The decentralized organization of work with flat hierarchies, and informal decision and control structures, is common in SMEs. (There are, of course, counterexamples to this generalization.)

So, it would appear that an orientation toward the customer should be the foundation of all qualifying concepts in the crafts. But the contrary is often the case: Learning concepts in intercompany training centers are centered on principles that correspond to the traditional industrial form of vocational training. The contents of training are organized and based on the division of labor and conveyed in subject-specific courses.

That traditional approach to training has two grave consequences for SMEs. First, the closed didactic concepts in this type of course are in direct opposition to the relatively open work procedures of SMEs. This type of pedagogy is therefore not able to instill in the student the ability to act. Secondly, the existing nature of provision is often used by the crafts as an argument to shift training away from an in-company provision toward intercompany courses. This leads to a reduction of responsibility for training by the companies and can shortchange the training needs of SMEs.

Qualifications and the Changing Nature of Work

Turning to the more general question of the relevance of the Dual System to the 1990s economy, there is growing concern about the understanding of work that is embedded in the Dual System. Since the 1980s, changes in work organization, enforced by the imperatives of new technologies, market changes, and environmental problems, have demanded new capabilities among workers. Work is no longer determined by a sequential production process, and work organization is no longer dictated by mechanical technology. Therefore, the work concept mainly embodied in the Dual System has to change from the concept of "production" toward a concept of "entrepreneurship." What does it mean?

The concept of production has three essentials:

73. Because it is known precisely what form the product of work should take, activity can be regulated according to rigorous technical standards.

74. This objective knowledge of product specification and production procedures can be transmitted unambiguously by means of vocational training.

75. This technical knowledge of production can be clearly and reliably tested.

And, with respect to the organization, there is a clear and reliable knowledge of the right planning, executing, and monitoring of work.

The graduates of the Dual System are experts in production and the production process. They can take up work in companies with relatively little difficulty, and the companies themselves appear to have an expert-model of organization. The organization of work procedures can be limited to arranging the necessary tasks for the production process so that the resulting work can be done by persons with the customary subject-specific qualifications. The company can rely on these workers to carry out all aspects of their tasks according to the technical standards belonging to their trades. These assumptions about production are embedded in the training regulations of the 1980s. These regulations decreed that learners should be capable of occupational activity that could be examined and lead to the attainment of qualifications. These occupational skills include autonomous planning, execution, and control.

This prevailing concept of production has had a strong influence on the development of qualification concepts, which are regarded as the principal means of producing the necessary skills for the production process. Vocational training concentrates on the production equipment to be handled, the sequence of the production process, and the products to be manufactured.

Gradually, attention has been moving beyond this production paradigm to encompass new organizational concepts of work. It is focusing on the reality that work in companies is by no means always an ordered activity akin to a production process. There is a growing awareness that each company always has activities that do not lend themselves either to planning or regulation. Unlike those processes that can be planned, these situation-oriented activities must be carried out in a climate of uncertainty regarding their possible consequences.

The Dual System has to recognize this changing understanding of work. Considerable effort must be invested in changing VET so that it can help develop the trainees' ability to cope with manifold practical situations. It has to reflect the changes in work organization: the decentralization of decisionmaking and responsibility, reductions in hierarchical structure, and more organizational learning. It must also prepare students for broader tasks beyond the specific subjects of the production process such as "cost thinking," customer orientation, communication, cooperation, and, in particular, entrepreneurship within the company.

Big industry has led the development of modern VET in Germany in this century, and it has shown an understanding of the message from the most recent economic crises as well. It is beginning to adapt its VET in content, methods, and organization to the change in work organization--changes which have been underway for some years. The actions of large firms may give the necessary push to the SMEs to base their training on their original understanding of work, and to draw their attention to the new training needs of the evolving workplace.

3. Costs of Vocational Education and Training

The cost-benefit of training is another factor that may encourage SMEs to participate more actively in providing learning in the workplace. In many SMEs and the crafts, companies gain profits from training. One reason may

be that the crafts do not invest as much in training as industry, with the consequence that they have to tackle image problems. A second reason is that the trainees are integrated in the work context and therefore achieve considerable results.

Industrial companies in Germany have been suffering from the biggest crisis since World War II, and, in aggregate, have reduced the number of training places significantly: by ten percent, for example, in 1993. (In overall numbers, the 1993 cuts in training places totaled about 50,000.) Some sectors were particularly hard hit: Industrial companies in the metal working and electrotechnical occupations reduced their training places by 50 percent from 1991 to 1993 (*Berufsbildungsbericht 1994*, 1994).

On the other hand, these companies are still committed to VET and are looking for cost-effective alternatives to their expensive training. The latest research results from the Federal Institute for Vocational Education and Training, and from industry itself, suggest that training is still very much in industry's economic self-interest. The research disproves the argument that it costs more to do in-company industrial training than it returns in benefits. Initial training in Germany is an investment in the future of the industrial company and the industry as a whole.

The principal problem with the costs of training is not its absolute level, however. Rather, it is the level of the comparative cost advantages. To be feasible, VET must be profitable in the short run, and not just in the long term. Given industry's short-term cost concerns, then, the dual combination of training and working in the workplace could become a dominant learning concept in industries, too, just as it has established itself in the traditional in-company training in the crafts.

4. A Need for the Situation-Oriented Ability To Act

Given the requirements of modern workplaces, the trainee must learn to perform certain actions suitable for the specific situation and the specific context. Therefore, it is no longer sufficient to convey only the knowledge and skills necessary for carrying out the fundamental duties in a subject-specific manner.

There has also been a dramatic increase in the need for competencies in technology, which go beyond the area of specialized competency. Employees must now be capable of having control of the whole task order--from the quote to the final inspection. They must possess the necessary technical and functional knowledge and an understanding of the shaping of technical systems. They must also know how to select the right technique, grasp the technical contexts in which the work takes place, and be able to systematically isolate faults and remove them from the process.

But does the existing system for certifying occupational performance competency, which results in a trainee who can take certain measures to achieve a defined goal, correspond to the current qualification needs of SMEs? If the SMEs continue to face the challenges of customer-oriented markets, the increasing trend to individualization, and ecological awareness in their work processes, there will be a worsening mismatch. SMEs need employees with a degree of competency not limited to technology, who can deal with changing situations. Such a situation-oriented ability to act has the following key aspects:

- It goes beyond the pure technological and vocational competency because it enables the individual to grasp the uniqueness of the situation and to act accordingly.

- It is oriented toward individuals because the work process is essentially driven by individual perception and judgement of the situation and defined by individual decisions.
- It requires that individuals possess
- self-confidence (the ability to perceive uncertainty as opportunity).
- the ability to shape (to find a particular solution fitting the circumstances).
- communication skills (the ability to express one's point of view, to honor the opinion of others, and to come to agreements).

5. SMEs and the Future of the Dual System

Thus far, this chapter has only dealt with the qualification needs of SMEs within the current Dual System, and not with the expectations and demands of the SMEs regarding the further development of the Dual System and the requirements of the German VET system as a whole. The Dual System faces two major challenges in the future. The first concerns the quality of vocational and general education, and the second involves the relationship between initial and further VET.

The Quality of Vocational and General Education

For the last 30 years, as Gerhard Welbers mentions in his chapter, there has been a continuing trend toward high-valued certificates. Pupils tend to learn more with respect to their career prospects; therefore, an increasing number of them go to Gymnasium, the highest level of general education in Germany. From there, students have nearly exclusive access to higher education. A comparison of the figures of the 1960s and 1990s shows that in 1960, nearly two-thirds of all pupils attended the Hauptschule, the first branch of secondary schooling, whereas three decades later only one-third went to this type of secondary schooling.

The definite losers are the graduates of the Hauptschule, especially the girls. Up to fifteen percent of an age cohort, about 100,000 to 150,000 young people, cannot get initial education and training. The general qualifications pupils who enter the Hauptschule may have difficulty obtaining an apprenticeship-contract from companies. Germany must be careful to avoid a situation where, on the one hand, the graduates of the Gymnasium can make their career without the Dual System and, on the other hand, the graduates of the Hauptschule cannot get into the Dual System despite the existence of training vacancies.

For the graduates of the Gymnasium, there are two avenues of preparation for subsequent vocational work in the area of industrial production. They can train as a skilled worker through the Dual System or they can study as a technician or engineer in the specialized colleges of higher education. Since technical and engineering degrees promise greater privilege to the individual, there is a marked trend toward obtaining such degrees. In addition, the more elevated educational establishments appear more attractive to young people, and this constitutes a threat to the appeal of the Dual System.

The low prospects of the leavers of the Dual System represent another challenge. Currently, only half of those who passed an examination can enter into a permanent contract of employment with their companies. One of six are being made redundant, and some additional trainees, who passed an examination, leave their company and

attend school again. In 1993, more than 50,000 young people, who had entered higher education and passed an examination within the Dual System, embarked on university study.

Attempts to raise the Dual System's status face a significant structural obstacle: The great social and educational advantage of the Dual System, namely open access to trained vocations, will be wasted unless three challenges are addressed. First, the Hauptschule should be reformed, so that pupils can get the qualifications that are badly needed as prerequisites for a modern VET. Second, there should be a reform of the part-time vocational school within the Dual System. It should become a school for young adults with a differentiated and well-integrated provision of vocational courses. Third, the quality of VET should be improved, especially in SMEs, so that their second-rate image disperses gradually and legitimately.

The Rise of Further Vocational Education and Training

The last notable challenge to the Dual System is the need for lifelong learning. In the modern world, the learning process cannot cease with the final examination as a skilled worker. The status gained by the individual through the Dual System is not, as it was in former times, a once-and-for-all thing, but it must instead be renewed continually through further VET.

In Germany, the Dual System is still focused on initial VET, and not on further VET. The latter is not based on the principles of subsidiarity, social dialogue, and consensus, but, rather, it is left to market forces of supply and demand. Therefore, further VET has always been a sticking point in the relations between employers' organizations and unions.

In recent years, further VET in Germany has been gaining in public interest for two reasons: (1) it is part of the current discussion about the equivalence of general and vocational education, and (2) it has been a focus of VET policy in the European Community.

General vs. Vocational Education

With respect to the discussion concerning the equivalence of general and vocational education, further VET appears to be playing a significant role. It is strongly connected with the question of career prospects of the VET system, especially in SMEs. Until now, the Dual System has been the starting point in the question of access to higher education. The attractiveness and equivalence of VET have been judged on the success of the Dual System in opening access to the training. Further VET, therefore, had only the function to compensate for the deficits of the Dual System.

Against that backdrop, the current discussion strives to place further VET on center stage by giving it a central role in the original VET system, which conveys equivalent qualifications and career prospects. The central proposition is that VET becomes attractive only when it has its very own educational and vocational contents regarding professional and career prospects. Therefore, VET has to exist independently, next to general education and traditional higher education. Three things are necessary to achieve that outcome: (1) in-company career prospects should be linked to further VET, (2) training regulations should be developed in those fields of further VET that are important for a modern economy, and (3) the different components of VET should be smoothly integrated. The Federal Institute for Vocational Education and Training has made a proposal to link initial and further VET more closely. It stresses the dual element of learning and working, of theory and practice as a constant feature of an entire VET system. The goal is to develop a VET system that encompasses initial and

further VET, and that offers attractive career prospects (Dybowski, Puetz, Sauter, & Schmidt, 1994).

The European Interest in Further VET

Further VET is also under discussion in Germany because of its European-side significance. With the speeding-up of structural changes in the economy, and with climbing rates of unemployment, further VET has become a key element of the economic and social policy in the European Community. Since the Maastricht Treaty, further VET no longer has only an instrumental function (in that it supports the economic and labor market goals). Articles 126 and 127 of the Maastricht Treaty elevate further VET to the original policy field of the European Union.

This development has been on the minds of all those who have political responsibility in German VET. Germany takes the European policy in further VET very seriously. In particular, the structural principles of subsidiarity and social dialogue comply very much with the German VET policy because they actually correspond to the principles of the Dual System.

With regard to Europe, Germany has to consider whether the principle of subsidiarity, especially in further VET, could be used to increase momentum for the innovative shaping of its own further VET system. The SMEs have a vital interest in an efficient Dual System. If the necessary political measures are taken soon, the Dual System's potential in producing high standards of competency will remain obvious to everyone--to young people and to Germany's companies.

Endnotes

* Federal Institute for Vocational Education and Training, Berlin, Germany.

1 Detour: There is a second type of training center in Germany, the so-called noncompany training center. Their numbers have being increased especially in Eastern Germany. Noncompany training centers differ from intercompany training centers in one essential way: The trainee enters into a contract with the center whereas otherwise he or she always enters into a contract with the company. The intercompany training only complements the in-company training, whereas the noncompany training replaces it.

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