Introduction

Rural America faces numerous challenges in building a high-wage, high-skilled workforce. Workers in rural areas have lower levels of formal education and training and receive lower returns on their investments in human capital [1]. Employers in rural areas have less demand for skilled workers and tend to be located in competitive markets that push them to cut costs, especially for job training [4]. Thus, if communities are successful in attracting employers demanding highly-skilled workers, the workforce may not be available. Conversely, if workers are trained for positions that are unavailable in the region, they may be forced to take jobs that do not require these skills or move to regions where the jobs that require these skills are located.

Many rural localities are attempting to overcome these obstacles by encouraging more employer training and establishing better ties between schools and employers. Workforce development networks address these concerns by promoting linkages across organizations and communities. This paper examines how these networks are organized, why employers and community colleges participate in them, and the factors influencing their success. Three sources of data are used: 1) a survey of approximately 1600 employers, 2) a survey of approximately 250 community colleges, and 3) intensive case studies of workforce development networks located in rural areas.

Networks and Local Labor Markets

The emergence of workforce development networks reflects the growing recognition of obstacles to building local labor markets. Workforce development networks may improve the functioning of local labor markets in several ways. First, workforce development networks can improve the flow of information to both employers and workers. Employers often lack sufficient information about the productivity of job applicants, which is why they typically rely on signals such as high school degrees [8]. Employers rely heavily on their existing workers to provide information about job applicants as well [5]. Networks enable employers to obtain a wider base of information through community-based organizations, training institutions and other intermediaries about the work ethic and skills of workers. Although most workers obtain jobs through informal networks, this process frequently hurts minority workers [6]. Minorities are most likely to benefit from formal sources of job information. Workforce development networks are often able to combine informal with formal sources of information to overcome some of these problems [9].

Workforce development networks can improve the transition from school to work, which reduces the problem of floundering that is most common among youth [13]. For example, workforce development networks often provide opportunities for work-based learning, improving the likelihood that young workers find jobs for which they are qualified. These opportunities reduce the turnover costs that employers face because young...
workers are more likely to find job opportunities that fit their interests.

In his seminal article on job training, Gary Becker argues that employers will not offer general training because they may lose these investments to other employers [2]. Instead, they provide specific training that develops skills that are not transferable. In this regard, employers face a collective action problem. It is in the interests of all employers to have a well-educated and trained workforce, but it is not rational for individual employers to bear the costs. Workforce development networks address this problem by linking employers, training institutions and community-based organizations in a way that reduces the costs of employer-provided training. If several employers can be brought together to provide training through a collaborative effort, the risk (and cost) to individual employers is minimized.

Community colleges also face some of the same dilemmas regarding job training [11]. Although community colleges have traditionally provided general education (oriented toward completion of a four-year college degree), there is growing pressure for them to provide customized training for individual firms. The growth of customized training programs in community colleges could lead to the narrowing of training programs. Participation in workforce development networks reduces this pressure and allows them to be responsive to employers yet design curricula that provide workers with a broader set of skills.

Establishing workforce development networks also can provide the potential for paths of mobility within the local labor market (career ladders). By linking employers with different levels of skill needs, networks can improve the likelihood that workers will gain experiences and skills that lead to higher-paying jobs with good benefits [3]. Employers relying on un-skilled workers benefit from these networks because it reduces their turnover rates. Employers demanding skilled workers benefit because they have a pool of skilled workers from which they can draw. Workforce development networks can build paths of mobility within the local labor market that were found in large firms in the past.

Finally, workforce development networks can help establish industrial clusters [10]. By bringing together firms in an industry and identifying common skill needs, workforce development networks can establish an infrastructure that attracts other businesses that may support the cluster of firms that have similar needs [12]. Although workforce development networks have several advantages, they face numerous obstacles. In particular, employer participation is one of the major problems. Employers report numerous reasons for their lack of participation such as time, financial resources and few perceived benefits. Below, these issues surrounding participation in workforce development networks and the structure of networks are examined.

METHODS

The data for this research are drawn from three sources: 1) a survey of 1590 employers in rural America, and 2) a survey of approximately 250 community colleges serving rural areas, and 3) case studies of rural workforce development networks.

Employer Survey

Businesses were included in this survey only if they were operating in non-metropolitan areas in the United States in 2001. The business sample was stratified by both industry (manufacturing and services) and the number of employees in the establishment (1-19, 20-99, and 100 or more employees). Approximately one-half of the sample was manufacturing establishments, and the other half was service establishments. Twenty-five percent of the sample is small (1-19 employees) firms, 35 percent medium-size (20-99 employees) firms, and 50 percent large firms. The respondent was the person in charge of hiring, which was the personnel manager or human resource director in most cases. Once the appropriate person was identified, we only included cases if the establishment had hired workers in the past year for a position that did not require a college degree.

The interviews were conducted over the telephone between January and August 2001. The interviews averaged 18 minutes. The total number of completes was 1590, with an overall response rate of 57.5 percent.

Community College Survey

The sample of rural community colleges was drawn from respondents in the telephone survey of rural employers conducted in the first phase of the study. Respondents were asked to identify the community/technical college that served their region. This strategy produced 338 cases. The University of Wisconsin
Survey Center conducted a screening call at each institution to obtain up-to-date address and contact information, as well as give advance notice that they would be receiving a survey. Because many community colleges have several branch- es, the closest campus to the firm was chosen if the specific branch was not mentioned by the employer.

Data collection involved two stages: a mail survey and telephone interview. The design for the mail survey called for a full mailing to respondents (including a cover letter, survey and business reply envelope), a postcard reminder to all respondents, and then a reminder mailing to those respondents who had not yet returned their survey. After the reminder mailing was sent, the survey center conducted a round of “personal touch” calls to non-respondents. The mail survey generated 97 completes. Six weeks after the last mailing was sent, the Survey Center began calling non-respondents to conduct the survey over the telephone. A total of 149 interviews were completed in this manner, for a total of 246 completed surveys. The overall response rate was 74 percent. The survey included questions about academic programs, faculty and staff, training needs of the region, apprenticeship programs, services, collaboration, and involvement in economic development activities in the region.

Case Studies

Case studies were selected through information provide by employers and community colleges interviewed in the earlier stages of the study. In each case study, interviews with various elements of the network were completed, including community-based organizations, employers, training institutions, workers, and other partners. The objectives of these interviews were to understand how collaborations were established, how they were maintained, and whether collaboration provides advantages that are not available to individual actors.

How Are Workforce Development Networks Organized?

Four distinct organizational structures for workforce development networks in rural areas were identified.

1. Sole-provider. An example of a sole-provider network is Rural Opportunities, Inc. (ROI), which is located in Rochester, NY. ROI is a community development corporation (CDC) that provides a broad set of housing, health, education, employment and emergency services to migrant and seasonal farm workers in the region. ROI was established in 1969 as an umbrella organization for a decentralized set of offices providing services. The advantage of this model is that it provides a holistic approach to workforce development by offering a wide variety of services, most of which are provided through the organization. The CDC maintains relationships with a variety of institutions such as community colleges, employers and other community-based organizations, but ROI occupies the central position in the network. This model seems most appropriate for serving its’ primary clientele—migrant and seasonal farm workers. ROI is able to provide basic training needs such as English as a Second Language and work with other training institutions to provide additional training. Core services include initial skill assessments, job search, placements assistance and counseling. ROI has been successful in obtaining numerous grants from the U.S. Department of Labor to subsidize the costs of job training by employers.

This model has several advantages such as providing services on a holistic basis and its’ ability to secure grants and funding for programs. The sole-provider model, however, is not as responsive to employer needs and does not provide a broad set of linkages with community-based organizations.

2. Hub-spoke network. A common structure for workforce development networks is the hub-spoke structure with a community-based organization (CBO) at the center. The CBO builds capacity among partners rather than directly providing services. An example of this form of workforce development network is the...
Mid-Delta Workforce Alliance. The Alliance serves a three county region in the Mississippi Delta. It represents a collaborative effort of businesses, educational institutions, government agencies and community-based organizations. The Alliance has a decentralized structure, with each county having a board representing business, education and training institutions, government, human service providers and community leaders. The Alliance has a small staff and accomplishes most of its objectives through partnerships. This model seems to work well in a rural region by serving multiple communities with workforce development services. Each community/county participating in the project is relatively autonomous but can tap into services and programs available in the network.

The Alliance has developed several innovative programs. The Sunflower County Employability Skills Project was initiated through collaboration with the county’s economic development organization, the local education center and SuperValue, Inc., one of the largest employers in the region. The program offered in the summer of 2002 had two components: a skills assessment and a two-week intensive training program in basic math, reading, computer use and soft skills. Individuals completing this training received a certificate and were given priority in obtaining jobs with Super Value. Twenty-five people completed the program and only two had left about six months later, a higher retention rate than the company normally experiences.

Another program the Alliance sponsored was the Groundhog Job Shadow Day. The Alliance implemented the program for the first time in 2002 when 226 students from Chicot and Desha Counties in Arkansas and 573 students from Washington and Sunflower Counties in Mississippi shadowed more than 420 workplace hosts. This program provides students with an opportunity to learn about local career options and for employers to reach out to future employees.

This model has been very successful in building community capacity and developing linkages with regional employers. Because of the decentralized structure, it may be less successful in accessing external resources, although it received several grants from foundations.

3. Employer-centered network. The Portage County Business Council is an example of a workforce development network with clusters of businesses at the core of the network. A key feature of this particular network is that large companies provide training (for a fee) to employees of smaller firms through the Central Wisconsin Employers Education Exchange (EEE). The EEE is coordinated through the Portage County Business Council Foundation and uses area training/education professionals to design and facilitate the programs. Employers providing a training professional to facilitate three to five training programs per year have access to all EEE programs for their employees and share in the net profit of the program they conduct. The program has developed a wide variety of courses to improve the skills of administrators, but they also have more technical-oriented programs such as food safety. These courses are taught in English, but materials and exams are available in Spanish, Vietnamese, Chinese, Korean and Arabic. The cluster of firms is linked to training and business organizations and other service-providers in the region.

The Portage County Business Council has been extremely successful in establishing employer collaboration and developing programs responding to employer needs. The program was fortunate to have substantial support from the federal government. At this point, the employer-centered approach, however, has not focused on the needs of low-skilled workers in the region.

4. Sector-oriented (Cluster) network. In many rural regions, workforce development is organized across an industrial sector. One example is the Wisconsin Plastics Valley Initiative, a partnership of industry employers, local economic development corporations, University of Wisconsin-Platteville, University of Wisconsin-Stout, Madison Area Technical College, University of Wisconsin-Extension, high schools, and other organizations in the region. The network has identified basic skills needed in the plastics industry and promoted apprenticeship and other programs that address these needs. One of the programs is the 2+2+2 program, which enables students in high school to take a curriculum in their last two years that concentrates on general skills in the plastics industry. Several high schools in the region have participated in this program. Once students graduate, they can move into a program available at one of several two-year colleges. Madison Area Technical College (MATC) has participated in the programs initiated by the Plastics Valley effort. These programs offer opportunities as technicians in the industry. Finally, students can obtain a bachelor’s degree in
several fields related to the plastics industry. UW-Platteville and UW-Stout have developed degree programs in response to this initiative. Providing these key training programs is seen as an important tool to attract other plastics firms to the region.

This project has been relatively successful in gaining support of employers in the region. One weakness is the scale required to implement the apprenticeship programs. Local high schools and community colleges must invest the same amount of resources into curriculum development for a program that serves 100 students or two students.

Workforce development networks take a variety of forms, and there is no single structure that will work in all settings [7]. Workforce development networks are comprised of public sector organizations, employers and training institutions, but there are significant differences in how they are organized. Each model appears to have its own set of advantages and disadvantages. Some models are more employer-centered than others, some tend to focus on broad sets of skills, while others focus on more narrow skills.

**Why do employers participate?**

Employer participation in workforce development networks is a perennial problem. There appear to be two primary motivations for employer collaboration. First, collaboration spreads the costs of job training across several firms. Second, collaboration reduces some of the risk employers face in investing in job training. They may lose workers to other firms, but they also may gain trained workers as well.

About half (44 percent) of the employers collaborated with other firms in the same industry to identify common skills required for workers that were in comparable jobs. Two-fifths (38 percent) said they collaborated with firms of the same community. And 26 percent did so with firms in their supply/marketing chain. Employers were asked whether they cooperated with other firms in developing training programs. Forty percent developed programs with firms that are in the same industry, 35 percent did that with firms of the same community, and 29 percent did so with firms in their marketing/supply chain (Figure 1). Participating in these types of employer consortiums increases the effort firms make to train workers such as spending more dollars on training or training more workers, but it does not necessarily increase the breadth of training.

Employers also work with community-based organizations that deliver job training (Figure 2). Approximately 21 percent of the employers interacted with these organizations when they needed to recruit workers, but a smaller proportion of employers (11 percent) collaborated with community-based organizations in pre-employment programs to potential workers. Two employer characteristics are strongly related to use of community-based organizations for training, recruiting and pre-employment training. Large firms are much more likely to collaborate with community-based organizations in these activities. Large firms have a greater need for these services because they recruit more workers and have more training needs. Also, working with community-based organizations may take time and other resources that are less available to small firms. Service firms are much more likely to collaborate with community-based organizations than are manufacturing firms. Manufacturing
firms often report that their training needs are so unique that they see few benefits in participating in these collaborative efforts. Similarly, their training needs may be met by on-site programs rather than off-site.

There are a few additional factors influencing employers’ willingness to collaborate with community-based organizations. As one might expect, employers with a higher percentage of unskilled positions (not requiring reading or writing) are less likely to work with a community-based organization to provide training. Similarly, employers with a larger percentage of their workforce receiving formal training are more likely to collaborate with community-based organizations.

WHY DO COMMUNITY COLLEGES COLLABORATE?

Community colleges also are actively engaged in workforce development networks. They work both with consortiums of employers and community-based organizations. Approximately three-fourths of the community colleges report they have worked with groups or consortiums of employers in their region in the past three years to provide training programs or direct services. Community colleges frequently initiate consortiums, primarily to establish ties with employers and to reduce the costs of delivering programs (Figure 3). The most common training program in these consortiums is for specific manufacturing skills.

Eighty-five percent of the community colleges report they have collaborated with a community-based organization in their region during the past three years. Although community colleges view these linkages as an important way to establish ties to employers, they also are seen as facilitating interaction with workers. Collaborations with community-based organizations have a different focus than those with employer consortiums. Collaboration with community-based organizations tends to result in more general training programs, such as general work and computer skills, than is the case with consortiums of employers (Figure 4).

SUCCESSFUL WORKFORCE DEVELOPMENT NETWORKS

Data from the employers, community colleges and community-based organizations suggest that several factors contribute to their success. Success may involve a variety of outcomes such as increases in job training opportunities, improvements in worker income and more local economic development. First, local labor market conditions have a major impact on the outcomes of networks. The tight labor markets of the late 1990s created demand for low skilled workers and a willingness of employers to collaborate through networks. Tight labor markets increased the willingness of employers to invest in job training as a strategy to retain qualified workers. Second, the stock of human capital in the region influences workforce development efforts. Higher levels of education and work experience improve the opportunities for placement and retention. Third, employer involvement is a challenge. Large firms are most likely to participate, and it is a challenge to motivate small firms to participate. Fourth, the organizational capacity of the institutions involved affects the success of workforce development efforts. In particular, the depth and breadth of the organization’s networks will define how well they are able to build collaborative partnerships to deliver these services. In a few of the case studies, the efforts were not as successful as they might have been because the partners were not inclusive. Fifth, workforce development networks require management of partnerships to ensure there is a sufficient flow of information and agreement on the activities of the group. Many of the workforce development networks committed a considerable amount of resources to communication through newsletters, meetings, etc.
Finally, local/regional governments play a vital role in establishing and maintaining these networks. The public sector may not be an initiator, but they certainly can block the efforts of these networks if they are not involved from the outset.

What can be done to improve the functioning of workforce development networks in rural America? First, the organizational structure should fit the needs of the region. Employer-centered networks can improve job training but may not address the needs of low-skilled workers. Second, promotion of trust and cooperation are essential to the performance of networks. Many employers do not trust the motives of public officials or the larger firms in the region. This suspicion cannot be overcome quickly and requires small successes to build cooperation. Finally, timing is important. Many of the case studies that were examined were initiated in the tight labor market conditions of the 1990s. Employers had a demand for skilled workers, and it was difficult to retain qualified workers in many regions. These networks may be more difficult to establish during a recession when workers are available and employers can easily hire skilled workers.

**Conclusions**

Workforce development networks have emerged in many rural areas over the past decade. These networks look different in rural areas than they do in urban settings. In rural areas they tend to be more regional in their orientation and are more likely to have community colleges play a critical role. There also is considerable variation in the organizational structure of these networks in rural America. Based on the surveys and case studies, it appears that workforce development networks encourage employers to provide more training and improve linkages with community colleges and employers.

The structure of the workforce development networks also influences the breadth and depth of job training. Networks focusing on employer consortia tend to provide more narrowly-focused training programs, while those organized around community-based organizations tend to offer broader training programs.

Employer participation continues to be a central problem in the functioning of workforce development networks. Small firms are almost always excluded because of the time required to make such collaboration work. Participation by large firms can also be problematic because they may use their influence to design programs for their individual rather than collective needs.

**References**


Author Profile

Gary Green serves as professor and chair of the department of rural sociology at the University of Wisconsin-Madison and as a community development specialist with University of Wisconsin-Extension. His research and teaching focuses on community, economic and workforce development. Among his recent publications is Asset Building and Community Development (Sage Publications, 2001), which is a widely used textbook in the field of community development. His forthcoming book, Places of Consumption: Restructuring and the Growth of Nonmetropolitan Localities in the United States (SUNY Press, 2004) examines the role of amenities in rural development. He is currently studying the role of community-based organizations, employers and community colleges in providing training in rural America. Green also has been involved in development issues in international settings such as Ukraine, New Zealand and South Korea. He is currently the editor of Rural Sociology and the recipient of the 2003 Pound Extension Award from the College of Agricultural and Life Sciences at the University of Wisconsin-Madison.