To gather information on the workforce training and retraining needs of American businesses and how community colleges can best meet those needs, a study was conducted of recipients of workforce education and training nationwide. One-hundred and four community colleges in 27 states participated in the study, sending questionnaires to 4,703 American-based employers who had been served by the colleges in 1994-95. In addition, the colleges were asked to complete one-page summaries describing exemplary workforce programs and factors that affect the success of workforce education. Major findings and recommendations from the study, based on questionnaires received from 2,473 employers and summaries received from 56 colleges, included the following: (1) 35.3% of the businesses served were in the industrial/manufacturing sector, 17.4% were in the government/public sector, and 13.9% were in health services; (2) slightly less than one-half of the businesses were small, having 100 or fewer employees; (3) the quality of training provided was rated as "good" or "excellent" by 96% of the employers; (4) factors related to program success included instructional quality, responsiveness to business needs, cost-effectiveness, and effective assessment and evaluation systems; and (5) the most serious limitation in implementing workforce education cited by the colleges was lack of financial and other resources. Contains 23 references. (HAA)
NATIONAL WORKFORCE DEVELOPMENT STUDY
IN THE COMMUNITY COLLEGE

By
Dr. John W. Quinley,
Director of Planning and Research

Central Piedmont Community College
PO Box 35009
Charlotte, North Carolina 28235-5009

(704) 330-6592
Abstract

NATIONAL WORKFORCE DEVELOPMENT STUDY
IN THE COMMUNITY COLLEGE

The demand for education, training, and retraining, created in the rapid pace of workplace change, is often met through the nation's system of community colleges. The study was conducted to shed light on two basic questions concerning workforce development: (1) What are the workforce education, training, and retraining needs of businesses in America? (2) How can American community colleges best meet these needs?

The research sought the perspectives of the recipients of workforce education and training and the providers of workforce education and training. More than 2,400 employers representing 27 states returned surveys for a response rate of 53 percent. Fifty-six of the 104 community colleges wrote summaries—a response rate of 54 percent.

Major findings and recommendations of the study were: community colleges serve businesses of all types and sizes; enhanced workplace skills are needed; there is a growing need for workforce development; employer goals focus on the bottom line; employers choose community colleges because they are cost-effective, responsive, and provide quality; employers give high ratings and would recommend a community college; commitment among leadership must be strengthened; partnerships are required; colleges must enhance marketing, and the constraint of limited resources must be addressed.
Driven by advanced technology, fast-paced innovation, heightened global competition, and changing demographics of the American workforce, the workplace in America is changing rapidly and profoundly. The level and types of skills needed by the workforce to accommodate this transformation is unprecedented. The new workplace requires adaptive and innovative workers with strong interpersonal skills. Works will be expected to have as broad a set of skills as was previously required only of supervisors and management. They will be required to upgrade these skills regularly. Career changes several times during a lifetime will be common; life-long learning will become the educational standard.

The demand for education, training, and retraining, created in the rapid pace of workplace change, is often met through the nation's system of community colleges. Over the past three decades, America's community colleges have provided high-quality workforce education and training to American-based businesses and organizations. Nearly all (96 percent) of American community colleges offer workforce education and training programs and services (Doucette, 1993). Through these efforts, American-based businesses and other organizations have been strengthened in their effort to succeed and survive in today's technologically advanced, culturally diverse and global economy.

In large part, due to the positive experience of American-based employers with workforce development programs and the community college presence in every corner of the nation, America's community colleges have emerged as the most logical provider of workforce development, education, and training. In partnerships with business and industry, government, and other service providers, America's community colleges comprise a high-quality, cost-effective, responsive workforce development delivery system -- a system which will help lead the national effort to ensure that the American workforce is the most skilled and adaptable workforce the world has ever seen.

The results of this study will assist American community colleges in their quest to become ever more effective as a pre-eminent workforce development delivery system for this country. The results will also suggest how business and government can partner with community colleges to meet the workforce challenges of the 21st century.
LITERATURE REVIEW

In recent years, several state community college systems have assessed the impact of their workforce development programs by conducting surveys of clients—the businesses and other organizations that contracted with them for workforce development services (Wismer & Zappala, 1993; Clagett, 1995; Iowa Association of Adult and Continuing Education Deans and Directors, 1996). In preparing for the twenty-first century, each of the state systems also sought through their studies to identify future workforce education and training needs within their states.

In the case of each state which assessed the effectiveness of its community colleges, state associations of community college continuing education professionals have spearheaded the statewide survey initiatives. In 1993, the Michigan Community Colleges Community Services Association, in cooperation with the Michigan Community Colleges Association, conducted a workforce education, training, and retraining survey. Participants were employers who had taken part in programs offered through the Michigan community colleges. In 1995, the Maryland Association of Deans and Directors of Continuing Education/Community Services replicated, in large part, the study conducted by their Michigan colleagues. In 1996, the Iowa Association of Adult and Continuing Education Deans and Directors, participants in the National Workforce Development Survey, took the finding of their state from the National Study and published them as a follow-up to an earlier state study conducted in 1991. The Michigan, Maryland, and 1991 Iowa studies solicited responses from their corporate and non-profit clients directly, using no intermediary collection means.

On a national level, there are two early influential studies which described the state-of-the-art in workforce education and training—one conducted by Robert Degan in 1988 and the other by Robert Lynch, Jim Palmer, and Norton Grubb in 1991. In addition, according to Frazis, Herz, and Horrigan (1995), a wide array of data have been gathered on training delivered by all providers through household surveys, such as the Current Population Survey, the National Longitudinal Survey of Youth, the Survey of Income and Program Participation, the Panel Study of Income Dynamics, and the Survey of Employer Provided Training.

Specifically related to community college delivery of workforce development education and training at the national level are two recent studies. The 1993 League for Innovation in the Community College study surveyed the providers of workforce education (Doucette, 1993). The American Association of Community Colleges and the U.S. Department of Labor collected data concerning workforce development programs from hundred of representatives of community colleges, business and industry, and
state and local governments at five regional forums. The results were published in 1994 in The Critical Link (Falcone).

Each individual state study and the two recent national studies provided a foundation for the National Workforce Development Survey which included the perspectives of both the clients of workforce education and training programs and the providers of these programs.

PURPOSE

For the purposes of this study, workforce development is used interchangeably with workforce education and training and is defined as those activities designed to improve the competencies and skills of current or new employees of business, industry, labor, and government (American Association of Community Colleges, 1993). Such training is typically provided on a contract basis with the employer who (1) defines the objectives of the employee workforce education and training, (2) schedules the duration of the training, (3) specifies the delivery mechanism by which training is provided, and (4) delineates the competencies of the trainer. Workforce development is customer-driven, involves payment by the customer to the training provider, and is usually linked to some economic development strategy of the employer (Jacobs, 1992).

This research seeks the perspectives of two key workforce constituencies: American-based employers -- the recipients of workforce education and training -- and the deans and directors of continuing education at American community colleges -- the providers of workforce education and training. These groups were asked to shed light on two basic questions:

1. What are the workforce education, training, and retraining needs of businesses and organizations in America?
2. How can American community colleges best meet these needs?

Several basic purposes of the study cluster around these two basic questions. The purposes were:

- To explore the extent and nature of workforce education, training, and retraining needs of the current and future American workforce.
- To determine the value of community colleges for federal and state policy makers and the public in providing workforce education and training.
- To identify factors that contribute to the success of workforce education and training, as well as factors that were seen as barriers working against success.
To present the national results and discuss for state and national legislative bodies the implications of community colleges as the nation’s pre-eminent workforce education and training delivery system.

METHOD

Sample

The study employed a convenience sampling approach. In the spring of 1995, the initial invitation to participate in the National Workforce Development Study was extended to all member colleges of NCCSCE and COMBASE. A cover letter explaining the purposes and procedures of the study, the employer survey instrument, and examples of the requested one-page summaries were sent to approximately 350 colleges who were members of one or both of these AACC councils.

Over time, several colleges who were not members of the above organizations learned of the research and sought to join in the study. The entire 15-college system in Iowa elected to participate. After a meeting with Dr. James McKenney in the fall of 1995, the research team decided to seek participation from colleges located in states that were not represented in the study’s sample and to include the top leadership of NCOE and its member institutions not already participating in the study. Approximately 75 additional letters of invitation to participate in the study were sent. Finally, Dr. Andrew Meyer, Project Coordinator of the Maryland Community College Workforce Training Evaluation and Needs Assessment Survey, received permission from the Maryland Association of Deans and Directors of Continuing Education/Community Services to merge the data from their recently completed study with the data from the National Study. Dr. Craig Clagett, author of the Maryland study, provided the data on disk with a description of the data elements. Since the National Study was in large part based on earlier state studies, such as the one conducted in Maryland, there was considerable overlap among questions.

Almost 10 percent of all community colleges in the nation participated in the National Study. The study included 104 colleges from 27 different states.

Instruments

The study's methodology included two approaches: (1) a survey mailed to American-based employers who were provided workforce education and training services by community colleges and (2) a
request to deans and directors of workforce education and training programs to write two, one-page summaries concerning their perspectives on workforce education and training.

The survey instrument was based on similar instruments successfully used in Maryland (1991), Michigan (1991), Iowa (1991), and North Carolina (1994). In the survey component, colleges identified the businesses and organizations they served in the 1994-95 academic year through workforce education and training programs. Colleges sent these clients the three-page survey with a cover letter from the college president or the dean/director of continuing education.

The second part of the research study consisted of two, one-page summaries written by the deans and directors of continuing education. Summaries include: (1) a description of the college’s most exemplary workforce education and training program and (2) an analysis of factors that promote or impede the success of the college’s workforce education and training programs.

Response Rate

Of the 4,703 surveys that were sent to American-based employers, 2,473 were returned - a response rate of 52.6 percent. (Thirty-five surveys, returned after the analysis was begun, were included in the calculation of the response rate, but not included in the analysis of results.) The number of employer responses by college ranged from a low of 3 to a high of 145; the average number of employer responses by college was 24. The responses from the Maryland study were included in the National Study when individual questions were identical or close enough to combine. In a few cases, response ranges for an item on either study were collapsed into fewer responses to allow for full use of the data.

Fifty-six or 53.8 percent of the deans and directors of workforce education and training programs returned the two, one-page analytical summaries.

DISCUSSION OF RESULTS/CONCLUSIONS

The results of the National Workforce Development study support three general conclusions. These conclusions are based on the findings of the survey of employers, the factors and exemplary practices summaries written by the deans and directors of workforce development programs, and corroborating results from other studies. The conclusions, summaries of results that support the conclusions, and a brief discussion of their significance form the basis for the discussion.
The American system of community colleges is responding to the needs of American-based businesses and organizations for workforce education and training.

Types and Sizes Served

American community colleges provide workforce education and training to employers and employees in all types and sizes of businesses and organizations in the United States. Of the employers who responded to the survey, the greatest concentration of service was in the industrial/manufacturing (35.3 percent), government/public (17.4 percent), and health services (13.9 percent) -- these types accounted for two-thirds of all employers served.

Just under one-half of the businesses served were small, with 100 employees or less. Just under one-third of the businesses were mid-sized (from 101 to 500 employees). Large establishments (501 or more employees) represented over one-fifth of the total number of employers served by community colleges.

The focus of community college workforce development programs on small and mid-sized businesses and organizations is important for at least two reasons. First, small- and medium-sized businesses are the acknowledged engines of economic growth in the United States (AACC, 1993). Second, according to a recent Bureau of Labor Statistics study, small- and mid-sized businesses are much less likely to conduct training in all areas than are larger establishments (Frazis, et al, 1995). Both respondent groups -- the employers and the deans and directors -- noted that small businesses often have difficulty in participating in training. Two reasons offered were that businesses/organizations are too small to yield the sufficient number of employees needed for contracting customized programs and/or they have insufficient funds to pay for training.

In part, the community college system has attempted to circumvent this dilemma of high need and low resources by forming coalitions similar to many of the exemplary practices reported in this study. Creative partnership with business, industry, labor, government, and other education providers to deliver high-quality training at reasonable costs to small- and medium-sized businesses and organizations are characteristic of many community college workforce development programs.
Goals and Selection Criteria for Education and Training

American-based businesses and organizations need employees with world-class skills to keep pace with technology and to compete in the global marketplace. Emerging and existing workers need a firm foundation in basic communication and computation skills, expertise in technical and other skills related to specific enterprises, the ability to work with others in solving problems, and strong work ethic qualities (Carnevale, Gainer, & Meltzer, 1988). These factors are reflected in the survey responses and in the comments of employers responding to the study. These factors are also consistent with the findings of a recent Bureau of Labor Statistics study (Frazis, et al, 1995).

Almost three-fourths of the employers surveyed sought workforce education and training to improve employee performance and productivity or to upgrade employee skills. Almost one-half of the businesses and organizations contracted for workforce training programs with the goal of professional development or for the self-enrichment of their employees. Smaller proportions sought training because it was required by the profession of the employees or because suppliers or customers expected it.

To bring their workforce up to the needed skills levels, employers are looking for high quality, cost-effective, and conveniently located and offered workforce education and training programs. Most education and training programs require customization to meet specific industry needs. Although many large companies continue to conduct their own training, the proportion doing so, according to an American Society for Training and Development study (1991), has dropped from 90 percent in 1980 to 50 percent in 1991. Further, small- and medium-sized companies typically look to meet their training needs from outside their companies to a much greater extent than do larger firms. In a recent Nation's Business "Where I Stand" poll (1995), two-thirds of the businesses responding to the survey felt that public and private schools (including community colleges) should have the primary responsibility for educating and training their workers.

In the National Workforce Development Study, just over two-thirds of the corporate and non-profit clients chose community colleges to meet their need for workforce training because they perceived community colleges to be a cost-effective value for their investment. About one-half of the employers chose community colleges because the training program was customized to meet specific needs, the training was held at convenient on-site locations, the quality of instruction was good, and past results led to additional contracts. A small proportion of employers chose a community college on the basis of a referral from other businesses.
Both employer comments and the summaries written by deans and directors corroborated these survey results. Comments made by employers and deans/directors also pointed out the critical importance of administrative staff and evaluated the staff's current performance as high in quality.

Types of Education and Training Needed

As indicated in Table 1, the need for workforce skills education and training in almost all skills areas was uniformly high. Of the 12 areas from which employers could respond, 10 were seen by 50 percent or more of the employers as “needed” or “much needed.” Areas needed most (defined as 75 percent or more indicating “needed” or “much needed”) were professional development, computer skills, interpersonal skills, and critical thinking. Specific skills areas needed second most (defined as 50 percent to 74 percent indicating “needed” or “much needed”) were communication skills, business skills, government regulations, personal skills, technical skills, and computation. The specific skills areas, “global understanding” and “English as a second language,” received a lower indication of need than did the other items.

Table 1

Specific Workforce Education and Training Needs of American-Based Companies

<table>
<thead>
<tr>
<th></th>
<th>Not Needed</th>
<th>Needed Much</th>
<th>Don't Know</th>
<th>Not Applic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Needed</td>
<td>Needed</td>
<td></td>
</tr>
<tr>
<td>Technical skills</td>
<td>28.9</td>
<td>43.3</td>
<td>14.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Computer skills</td>
<td>12.4</td>
<td>55.0</td>
<td>29.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Business skills</td>
<td>20.6</td>
<td>56.6</td>
<td>14.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Professional development</td>
<td>8.9</td>
<td>58.6</td>
<td>28.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Communication skills</td>
<td>20.9</td>
<td>52.7</td>
<td>21.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Computational skills</td>
<td>34.1</td>
<td>44.3</td>
<td>9.6</td>
<td>6.8</td>
</tr>
<tr>
<td>English as a second language</td>
<td>72.8</td>
<td>13.4</td>
<td>3.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>16.1</td>
<td>58.6</td>
<td>21.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Government regulations</td>
<td>27.0</td>
<td>55.3</td>
<td>10.5</td>
<td>4.7</td>
</tr>
</tbody>
</table>
Table 1 (Continued)

<table>
<thead>
<tr>
<th></th>
<th>Not Needed</th>
<th>Needed</th>
<th>Much Needed</th>
<th>Don't Know</th>
<th>Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Critical thinking skills</td>
<td>17.9</td>
<td>57.4</td>
<td>17.7</td>
<td>5.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Global understanding skills</td>
<td>51.3</td>
<td>27.2</td>
<td>3.7</td>
<td>7.9</td>
<td>10.0</td>
</tr>
<tr>
<td>Personal skills</td>
<td>24.9</td>
<td>53.1</td>
<td>12.5</td>
<td>7.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Other skills</td>
<td>23.8</td>
<td>16.7</td>
<td>17.2</td>
<td>20.4</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Professional development, the number one need area, was defined in the study as including basic supervision, total quality management, and time management. These factors reflect the business environment in many companies today: to compete in the global marketplace, many companies are converting to high performance or total quality management principles.

A company's transition to a high-performance organization requires extensive start-up education and training and a consistent program of on-going education and training. A high-performance organization, by necessity, needs extensive education and training in several of the other skills areas listed in the study: interpersonal skills -- interacting with others and working in teams; critical thinking -- problem solving, creativity, learning how to learn; personal -- responsibility, self-esteem, integrity, and honesty; business skills -- business writing, marketing, and customer service; communication skills -- reading, math, listening, and speaking; and computational skills -- basic math, charts, and graphs. Indeed, high-performance companies conduct and contract for education and training at a higher rate than do companies that do not regularly employ high-performance business practices (Phipps, 1995). Several of the exemplary practices submitted by the deans and directors of workforce development programs described an education and training program centered around transforming a company to a total quality management environment.

The second highest need area, computer skills -- training in such areas as word processing, spreadsheet applications, and database management -- reflects the continued modernization of the workforce through technology. Computer skills training is one of the most common courses offered by community colleges for workforce development (Doucette, 1993). The skills area, government regulations, is also reflective of the American business environment. Skills training in technical specific areas, indicated as high need in the National Study, was certainly expected. Often technical skills training requires the highest degree of customized training.
The training areas global understanding and English as a Second Language (ESL) were needed relatively less often by employers. The level of training needed in these areas is probably more sensitive to the location and/or type of business than are other skills areas. If a company is located in a highly diverse area -- for example, south Texas -- or if a company is a major exporter of goods and services, the need for ESL or global understanding may be much greater. As the globalization of the economy continues, the workforce of tomorrow will be expected to have a firmer understanding of the world’s cultures than is the case today.

Employers are most interested in programs that include non-credit and credit classes (57.1 percent) or programs with just non-credit classes (38.1 percent). With more than one-half of the employers wanting both credit and non-credit classes, it is important that the relationships between these two areas at individual community colleges be positive, and that problems of “fit” between credit and non-credit programs be transparent to business and industry clients. The deans and directors of workforce development programs have identified this division of instruction around funding rather than around employee need as problematic. Also, Doucette (1993) found that the credit faculty’s opposition or lack of support for the workforce development mission was a factor which influenced program success.

More than eight in ten employers saw one or more of the distance-learning technological approaches to instruction as a potential benefit to workforce education and training efforts. Almost three-fourths of the employers checked one or more of the telecommunication options (e.g., video-based, teleconference seminars, television-based). Video-based training received the largest single-item response, with over one-half of the employers checking this item. Compared to more traditional approaches, distance-learning approaches may be able to reach more employees in a more efficient manner, and at a lower cost. The deans/directors of workforce development programs reported that many employers resist instructional programs that are delivered exclusively or primarily in the traditional lecture format.

- The American system of community college workforce education and training is providing high quality, flexible workforce training programs to American-based businesses and organizations.

Quality of Workforce Education and Training

In the employer survey, the quality of the training provided was rated as "good" or "excellent" by 96.0 percent of employers. (See Table 2). Ratings of other facets of community college education and training programs were similarly high, with "good" or "excellent" ratings varying from 86.0 to 91.4
percent. The other rating categories related to training programs included "responsiveness to employer needs" and "the cost of training." Ratings were also given for the skills of employees trained by American colleges in technical areas, in computation, in interpersonal skills, and in communication skills. Almost all (95.1 percent) of the businesses and organizations in the survey would recommend community college education and training programs to other businesses; 4.0 percent of employers were not sure, and less than one percent would not recommend a community college.

Table 2
Ratings of Community Colleges by Aspects of Workforce Development Program

<table>
<thead>
<tr>
<th>Aspect of Program</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Quality of training provided</td>
<td>0.5</td>
<td>3.5</td>
<td>50.5</td>
<td>45.5</td>
<td>73</td>
</tr>
<tr>
<td>Responsiveness to employer needs</td>
<td>1.0</td>
<td>7.6</td>
<td>43.8</td>
<td>47.6</td>
<td>59</td>
</tr>
<tr>
<td>Cost of training</td>
<td>0.6</td>
<td>12.1</td>
<td>53.0</td>
<td>34.3</td>
<td>63</td>
</tr>
<tr>
<td>Technical skills developed</td>
<td>0.4</td>
<td>9.7</td>
<td>68.7</td>
<td>21.2</td>
<td>284</td>
</tr>
<tr>
<td>Basic computational skills developed</td>
<td>0.6</td>
<td>12.8</td>
<td>71.3</td>
<td>15.3</td>
<td>624</td>
</tr>
<tr>
<td>Interpersonal skills of employees developed</td>
<td>0.8</td>
<td>13.2</td>
<td>68.9</td>
<td>17.1</td>
<td>534</td>
</tr>
<tr>
<td>Basic writing, speaking, communication skills developed</td>
<td>0.6</td>
<td>13.7</td>
<td>69.4</td>
<td>16.3</td>
<td>520</td>
</tr>
</tbody>
</table>

Factors of Success

**Quality of Instructional Staff and Instruction.** At the core of any educational effort is the quality of the instructional staff and instruction. One-half of the employers indicated that the quality of instruction was an important reason for selecting a community college for workforce education and training; 96.0 percent of the respondents rated the quality of the training provided as "good" or "excellent." About one-half of the deans/directors mentioned the quality of instructional staff as a key factor in the success of workforce development programs. Both deans/directors and employers saw community college faculty as qualified, knowledgeable, committed professionals. Instructors were student- and employer-centered -- willing to quickly design and adopt innovative curriculum and instructional
delivery approaches to meet the practical challenges of on-the-job realities. Results of the national study showed that without credible expertise in the instructional staff, the corporate and non-profit client would not consider the college as a viable supplier of training services. Without consistent delivery of high-quality instruction, employers will not return for additional education and training.

Employers and deans/directors spoke of the workforce administrative staff and other support staff at the college, almost as frequently as they spoke about instructional staff. All were considered a factor of program success when they were innovative, efficient, flexible, knowledgeable, and customer-oriented. Since the employer/college interaction often centers primarily on the administrative staff, this relationship is central to the success of workforce development programs.

Responsiveness. Tied closely to the changing needs and economic futures of their local communities, community college workforce development programs adapt to changing conditions in their service areas. The highly responsive nature of community college workforce education and training programs was the top contributor to program success according to the analysis of the comments of deans and directors. It was the second-most frequently mentioned item of positive comment by employers. The businesses and organizations surveyed reported that training programs customized for their needs and the convenience of programs offered on-site were the second and third most influential reasons for choosing a community college for workforce education and training, respectively. Often, it is the willingness to be flexible and the speed of the response that gives the community college the competitive edge in the workforce education and training market. In successful community college programs, responsiveness and flexibility permeate every aspect of the workforce development program, including instruction, curriculum content and design, administrative support systems, class delivery approaches, and pre- and post-assessment procedures.

Cost-effective Training. Cost effectiveness was the number one reason given by businesses and organizations for choosing a community college for workforce education and training. Over two-thirds of the employers noted this as the reason. However, four in ten of the written comments made by employers expressed concern about costs, and several employers reported that they were looking for different sources of training due to high cost. Although not one of the more frequently cited barriers to success, several deans/directors expressed concerns about costs. One dean/director said that companies are doing more with less, and they expect their service providers to follow suit. Other deans/directors pointed to college practices or state funding policies that are beginning to place workforce development programs at a cost disadvantage. Partnerships with business, government, and other educational service providers, especially long-term arrangements, are a common approach to reduce cost and increase or maintain quality.
Assessment and Evaluation Systems. An integral part of many workforce development programs is the assessment and evaluation system that both helps develop the program and measures its effectiveness. Almost two-thirds of the deans/directors mentioned assessment/evaluation systems as a factor that contributed to the success of their workforce education and training programs. Included in this factor were assessments of employer needs and employee skill levels, program outcomes, and environmental scanning. To many deans/directors, assessment was directly related to the effective customization of training and delivery that results when comprehensive needs assessments are conducted. Environmental scanning assists colleges in their efforts to proactively prepare for future needs, and, therefore, deliver services in a timely manner.

However, in the survey of employers, many respondents felt that inadequate assessment left them with too little information about student program outcomes to make judgments about the quality of the program. Several employers commented that an improved assessment of student outcomes was needed. The lack of objective assessment procedures, especially in small businesses, was also noted in a recent national survey of employers (Frazis, et al, 1995).

- Current projections clearly indicate not only a continued need but also an increasing need for education, training, and retraining programs for American-based businesses and organizations.

Current and Projected Education and Training Needs

Consistent with other national findings, American-based businesses and organizations reported that a substantial proportion of their current workforce needed additional education and training (Dilcher, 1991). About one-fifth of the employers in the National Study estimated that over 75 percent to 100 percent of their current workforce needed additional training; cumulatively, almost 50 percent estimated from 50 percent to as much as 100 percent, and over 75 percent reported that over 25 percent to as much as 100 percent of their workforce needed additional training.

The magnitude of this need is growing, as advancing technology, fast-paced innovation, global competition, and substantial change in the composition of the workforce continue to require on-going training. The U.S. Department of Education considers technology to be the primary force driving the transformation in today's workforce (U.S. Department of Education, 1992). Of the employers responding to the survey, almost 100 percent saw technological change as increasing their need for workforce development. Just under one-third of the employers indicated the requirement for education and training
was affected by technology to a "considerable extent." Also, both the employers responding to the survey and the deans and directors of workforce development programs noted the importance of technological currency in instructional content and equipment. Several employers and deans/directors felt the community college is behind or rapidly falling behind in this area, and that this deficit is directly related to funding.

With needed support and changes, both external and internal to the community college, the community college system of workforce education and training is in a position to meet these increased demands for workforce development.

Agenda for Change

Leadership Support, Commitment to Mission. The second most frequently cited success factor by deans/directors was leadership support and commitment to the workforce development mission. The deans/directors reported that college leadership and support from the president, the senior leadership/management, the governing board, and from all levels of the organization is paramount. With only a few exceptions, the deans and directors reported that the senior management at their colleges was very supportive of workforce development. However, they also noted that as this mission role expands in importance, the relationship with the traditional, credit side of the college will require attention.

As critical as college leadership, is the leadership within the businesses and organizations themselves. Without direction, commitment, and consistent support from the company’s management, the workforce education and training program will not be successful. Company leadership must be full partners with community college workforce development programs, helping them decide what, how, and when to offer education and training.

Finally, the support of county and state agency heads charged with economic development is vital to a successful workforce development effort. Government must include community colleges as full partners in its overall strategy for economic development. Several of the deans and directors also pointed to other important roles government can assume, such as conducting regional needs assessments to determine the best directions for education and training or conducting promotional campaigns to better inform business and industry about the programs and services available through community college workforce programs.

Partnerships. The Secretary of Labor suggests that to create the well-educated, well-trained, highly-skilled, and competitive workforce needed in the new global economy, higher education must actively engage in partnerships with other educational sectors, employers, and workers (Reich, 1993).
Almost three-fourths of the exemplary practices reported by deans/directors concern partnerships with employers, governments, service and professional agencies, and/or other education and training providers. These workforce education and training partnerships take place on many levels -- for example, jointly evaluating specific training needs and screening and pre-testing employees; sharing facilities, equipment, and faculty; locating support services at common locations; and forming consortia of smaller businesses which need the same training.

Partnerships can be an effective method of responding to cost pressures, assisting the community colleges in remaining cost-competitive providers of workforce education and training. Often the most successful partnerships are long-term, market-driven and multiple-level arrangements between the college and business. Partnerships are often the best vehicle for being responsive to employer needs.

**Image, Communication, Marketing.** Community colleges generally enjoy a positive image in the communities they serve. However, although positive, the image of community colleges is characteristically blurred (Barber & Quinley, 1995; Kent, 1996). The absence of a clear understanding of the range of offerings within the workforce development programs of community colleges negatively impacts the image of community colleges as the pre-eminent workforce development providers. In the National Study and in other research the absence of understanding is often attributed to inadequate communication by the college (Falcone, 1994). A clear image concerning college workforce development programs is of particular importance because, "No other division within the community college system has had such an impact, either for better or worse, on the image of the college within the community (Kothenbeutal & Dejardin, 1994, p. 27)." In many instances in the National Workforce Development Study, the image held by employers of the workforce development program was the image of the college.

Although the employers in the National Study were recipients of community college workforce programs, the majority of respondents possessed only limited familiarity with workforce development programs and services. Only about one-fourth of the employers were "very familiar" with community college workforce development programs; six in ten were "somewhat familiar" and 13 percent were "not very familiar."

The lack of familiarity of employers with the full-range of workforce education and training programs available through the community college was commented upon by several employers and several deans and directors. Those who commented believed that a focused, on-going, professional promotion and marketing process needed to be a major part of every workforce development program. In their comments, deans and directors attributed the blurred image of workforce development programs to the lack of
allocated resources for marketing, promotion, and follow-up communication. Limited resources limit marketing, and limited marketing limits the degree of market penetration.

**Single Point of Contact.** Developing program processes that emphasize a single point of contact for employers is one way many colleges have of improving the effectiveness of the services they provide. A single point of contact clarifies who the employer needs to call for comprehensive services, can make the sometime rough interface between credit and non-credit programs seem transparent to the client, and can foster repeat and new business. The single point of contact may mean a single office of contact or the concept may refer to a single geographical location, convenient to client needs.

**Traditional Bureaucratic Structures, Practices, and Processes.** For almost one-half of the deans/directors, the educational bureaucracy was a factor which impeded success in workforce development programs, specifically traditional bureaucratic structures, practices and processes. Factors most mentioned were funding biased toward credit courses, instruction frozen in traditional paradigms, and unclear and cumbersome business practices in areas such as registration and billing. A small number of employers expressed concern about the level of bureaucracy, their resulting frustration and loss of speed to market. The intensity of these employer comments suggest that severe problems here may lead to the loss of customers in the future.

The deans and directors made special mention that the interface between credit and non-credit units in many community colleges is problematic. According to Katsinas (1994), “the central challenge for community colleges will include linking non-credit workforce development programs to the regular college curriculum.”

**Lack of Employer Recognition of Need.** The failure of employers to recognize the importance of education and training was the third most frequently cited barrier to success by deans and directors; one-third of them mentioned this as a limiting factor. Employers do not always recognize the importance of education and training to their long-term competitiveness, or employers simply balk at investment in training unless it can be shown to improve the bottom line in the short-term. Many companies also fail to see the need to provide incentives for their employees to participate in training. Without this recognition of need, and without careful attention to employee considerations, the workforce skills issue will not be sufficiently addressed.

**Role of Government, Budgeting, Limited Resources.** Many colleges see the development of state funding programs to improve and expand workforce education and training as a key role of government. Funds for the employer to purchase needed training, funds to support community college program expansion, and funds to enable community colleges to continue to offer reasonably priced
programs and services are critically needed, according to the deans and directors of workforce development programs. Several of the exemplary programs detailed by the deans/directors stressed the importance of state funding to the success of their workforce development programs. A number of the deans/directors tied insufficient funding to the failure of state government to clearly link community college workforce education and training and economic development.

Several of the deans and directors also pointed to other important roles government can play, such as conducting regional needs assessments to determine the best directions for education and training or conducting promotional campaigns to better inform business and industry about the programs and services available through community college workforce programs.

The most serious limitation identified concerned the lack of all types of resources. Included were budgets inadequate (1) to support training activities; (2) to assist employers, especially small and mid-sized businesses, with training costs; (3) to promote community college workforce development programs, which lead to recognition of community colleges as the choice for workforce training; (4) to hire experienced trainers in some areas; and (5) to provide adequate training space, current equipment, responsive curriculum development, and the other up-front costs associated with workforce development programs. These results were very similar to results of the workforce study conducted by The League for Innovation in the Community College (Doucette, 1993).

A number of deans/directors indicated that limited resources can often be the result of both college-wide and academic traditions which favor credit programs over non-credit programs. Such traditions often lead to state-level funding of workforce education and training at a lower rate than that of credit instruction. These traditions have also limited the degree of institutional focus on workforce education and training programs and contributed to assigning a lower priority to the needs of these programs. For example, limited resources for equipment updates are often funneled to other areas of the college. Finding rooms on campus which are not claimed by credit faculty is reported as often problematic. Finally, as mentioned by deans/directors, the administrative staff within workforce development programs is often characteristically small in relationship to the demands in this area.

Epilogue

Educating and training a world-class workforce is the key to America’s economic growth and ability to compete in the global marketplace. American community colleges are well-positioned to become
the pre-eminent delivery system of workforce education and training and provide quality, cost-effective, and responsive workforce training to prepare a skilled workforce for the 21st century.

The American Association of Community Colleges policy paper on workforce training emphasizes the critical nature of workforce training at this point in our history (American Association of Community Colleges, 1993):

The task of educating and training a world-class workforce that can think for itself and outperform the rest of the world is formidable, but the stakes have never been higher nor the potential rewards greater. If the nation fails to develop a workforce that can compete successfully in the global economy, it will be unable to provide the living standards to which its citizens have become accustomed; the gap between the rich and the poor will widen; and the nation's position as world leader will erode sharply. However, if the nation can respond effectively to the challenge to develop the most skilled and adaptable workforce the world has ever seen, it will ensure the prosperity of its citizens into the second American century (p., 12).
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Signature: John W. Quinley
Organization/Address: Central Piedmont Community College, P.O. Box 35009, Charlotte, N.C. 28223-5009

Printed Name/Position/Title: Dr. John W. Quinley, Director, Research and Planning
Telephone: (704) 330-6592, FAX: (704) 330-6013
E-Mail Address: johnquinley@cpcc.cc.n.c.us

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