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ABSTRACT

This audioconference report consists of nine sessions, each featuring a panel of experts who discussed a variety of issues related to collaboration in education and employment. The focus is on practitioners and employers and how they can collaborate to improve the quality of schooling and employment opportunities for secondary- and postsecondary-school youth. Highlights are provided from each of the nine sessions, which addressed these issues: school standards and business expectations--achieving both without compromise; becoming informed about business and the economy--collaboration provides the missing link for educators and students; the do's and don'ts of implementing collaborative programs; cooperative and experiential learning--is it worth the time away from the classroom; preparing for the changing skill demands of the workplace--closing the gap through collaboration; technological skills--how schools and businesses can meet the challenge together; collaboration in job search, guidance, and placement--"win-win" strategies for students and employers; handicapped populations--collaboration equals access and success; and retraining and adult transitions--revitalizing our work force through collaboration. Other contents are background information on the moderators and panelists and a directory of participants. (YLB)

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COLLABORATION IN EDUCATION AND EMPLOYMENT:
WHAT IT TAKES TO MAKE IT WORK

Annual Policy Forum Proceedings

edited by
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and

Richard J. Miguel

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
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November 1985

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CONTENTS

	<u>Page</u>
FOREWORD	v
INTRODUCTION	1
PROGRAM HIGHLIGHTS	3
Session 1: School Standards and Business Expectations: Achieving Both without Compromise	3
Session 2: Becoming Informed about Business and the Economy: Collaboration Provides the Missing Link for Educators and Students	8
Session 3: The Do's and Don'ts of Implementing Collaborative Programs	13
Session 4: Cooperative and Experiential Learning: Is It Worth the Time Away From the Classroom?	18
Session 5: Preparing for the Changing Skill Demands of the Workplace: Closing the Gap through Collaboration	23
Session 6: Technological Skills: How Schools and Businesses Can Meet the Challenge Together	28
Session 7: Collaboration in Job Search, Guidance, and Placement: "Win-Win" Strategies for Students and Employers	34
Session 8: Handicapped Populations: Collaboration Equals Access and Success	40
Session 9: Retraining and Adult Transitions: Revitalizing Our Workforce through Collaboration	45
BACKGROUND INFORMATION ON MODERATORS AND PANELISTS	49
DIRECTORY OF MODERATORS, PANELISTS, AND SITE FACILITATORS	83

FOREWORD

The Annual Policy Forum series, initiated in 1981, has been a significant factor in bringing together researchers, policymakers, and practitioners to examine contemporary issues to improve the employability and employment prospects of the youth and adults of our nation. The first forum examined the strengths of the various training systems in the United States in developing job skills for youth. The resulting publication, Job Training for Youth: The Contributions of the United States Employability System, has been widely acclaimed and distributed throughout our country and internationally. The publication from the second forum, Responsiveness of Training Institutions to Changing Labor Market Demands, has made a special contribution to the capacity of public and private institutions to meet the changing demands for skilled workers. The publication of the third forum, Displaced Workers: Implications for Education and Training Institutions, was instrumental in advancing knowledge on policy alternatives and disseminating information on operating programs for displaced workers. The publication of the fourth forum, Education and Employment: Where We Are and Where We Ought to Go, focused on the relationship between schooling and employment. Specifically, it examined research findings on (1) what employers are looking for in employees, (2) employers' priorities in making hiring decisions, and (3) education and training on the job. Throughout this forum, the focus was on the relationship of these three areas of employment to educational policies and practices.

The fifth forum, "Collaboration in Education and Employment: What It Takes to Make It Work," was an audioconference in which approximately 1,800 persons participated in 29 states; Washington, DC; and Newfoundland, Canada. The audioconference consisted of 9 sessions, each of which featured a panel of experts who discussed a variety of issues on collaborating to improve our educational systems.

The National Center wishes to thank the National Institute of Education for sponsoring the Annual Policy Forum series and Dr. Ronald B. Bucknam, Project Monitor, for his support. Dr. Bucknam provided several creative ideas that contributed greatly to the success of the audioconference.

We wish to express our appreciation to the moderators and panelists for all the work they did to prepare for the audioconference and for the excellent insights they shared with us during the event. We are also grateful for all the work that the site facilitators did to organize and conduct the conference for those who attended at their sites. This was truly a collaborative effort, and we have these people to thank for its success.

Appreciation is expressed to Richard Miguel, Senior Research Specialist, for designing and directing the forums; Sally Whittier for preparing the conference proceedings; Gwen Rippey, Graduate Research Associate, for assisting the director and coordinating the audioconference and site arrangements; Michelle Naylor for editorial assistance; and Jane Croy for secretarial support services.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

INTRODUCTION

The purpose of the fifth annual policy forum was to examine a number of issues related to collaboration in education and employment. The focus was on practitioners and employers and how they can collaborate to improve the quality of schooling and employment opportunities for secondary- and postsecondary-school youth. The forum addressed the following issues:

- o School standards and business expectations: Achieving both without compromise
- o Becoming informed about business and the economy: Collaboration provides the missing link for educators and students
- o The do's and don'ts of implementing collaborative programs
- o Cooperative and experiential learning: Is it worth the time away from the classroom?
- o Preparing for the changing skill demands of the workplace: Closing the gap through collaboration
- o Technological skills: How schools and businesses can meet the challenge together
- o Collaboration in job search, guidance, and placement: "Win-win" strategies for students and employers
- o Handicapped populations: Collaboration equals access and success
- o Retraining and adult transitions: Revitalizing our workforce through collaboration

These issues were addressed separately in nine audioconference sessions that were held October 29-31, 1985. The forum was sponsored by the National Institute of Education and conducted by the National Center for Research in Vocational Education. Approximately 1,800 persons participated in the audioconference at sites in 29 states; Washington, DC; and Newfoundland, Canada. The audience was composed primarily of secondary- and postsecondary-school educators at the state and local levels. It also included employers, legislators, school board members, and parents. Each of the audioconference sites was linked to the National Center through the bridging system of ConferTech International Inc., the audioconference vendor. The participants interacted with a moderator and panelists who were conversant in the issues relevant to their respective sessions, as well as with each other. The audioconference was voice activated; that is, panelists and participants were able to "gain the floor" by simply speaking up, thereby placing others online in a listening mode.

Each of the nine sessions ran for approximately 50 minutes. Richard Miguel, the forum director, introduced the topic, moderator, and panelists for each session. He then turned the conference over to the session moderator, who led the panel in a discussion of the issues. The moderator encouraged the

audience to make comments or raise questions, which the panelists in turn fielded. The moderators and panelists were selected from over 250 nominations solicited by us from the participants of the previous forum, "Education and Employment: Where We Are and Where We Ought To Go," which focused on youth employability research conducted at the National Center. The names of the moderators and panelists are included later in this document.

The remainder of this report includes highlights from each of the audio-conference sessions, background information on the moderators and panelists, and a directory of participants.

PROGRAM HIGHLIGHTS

SESSION 1: School Standards and Business Expectations: Achieving
Both without Compromise

Tuesday, October 29, 1985

1:00 - 1:50 p.m. EST

Moderator

Antonia Neubauer, Development Coordinator
Research for Better Schools
Philadelphia, PA

Panelists

Beth Packard
Coordinator of Special Projects
Northern Arizona University
Flagstaff, AZ

Al Church, Director
Experience Based Career Education
Highland High School
Salt Lake City, UT

Rita Kaplan, Manager
Educational Programs
Honeywell, Inc.
Minneapolis, MN

John F. Bradford, Director
Platte County Area Vocational
Technical School
Platte City, MO

Louise E. Wasson, Coordinator
Private Initiatives in Public
Education
Seattle, WA

HIGHLIGHTS

What are the major concerns voiced by the business community about getting involved in the schools? How are businesses and schools working together to address those concerns?

- o Packard: Businesses want to be involved in the process as partners, not just advisers. We all need to work to ensure that an equal partnership is established for mutual benefit.
- o Kaplan: Business wants an opportunity to shape the solution. Working with the education experts can help businesses come to a more creative solution.
- o Church: Our community resource people say they want to help young people be better prepared to enter the work force. They have noticed a lack of basic knowledge. There is an element of service also--businesses want to

contribute a sense of community. They want to be visible and to broaden the awareness of young people.

- * Great Falls, MT: Question. Did businesses assist financially with Platte County Vocational-Technical School?

o Bradford: Yes, we received some financial help, and about \$200,000 worth of equipment has been bought through the help of business and industry. Industry has played a major role in establishing which technical skills are needed but has also emphasized the necessity of training the total person--leadership, character, and attitude. Our school has professional dress standards and strict attendance rules.

What are the schools' expectations of the businesses with whom you work?

- o Church: We ask businesses to treat student interns as they treat their employees--to expect good work habits and appropriate dress and attitude. Adolescents want to know what it's really like, so we encourage openness and honesty rather than a "PR" [public relations] approach. We establish common goals. We point out that students have diverse needs and interests. We discuss the fact that there are different cultures in the private sector and government service agencies and the schools. We keep in touch over the 9-week periods our students are at the resource sites.
- o Wasson: Our business people are interested in efficiency. They want to know the purpose and product of each activity and to see measurable results. We try to make these things clear to the business people and the students.

In our program, the business people are involved in curriculum development, teacher inservice, and field trips. We like to have the schools identify what they need rather than have the businesses initiate ideas.

- o Kaplan: Each side needs to have a professional independence that recognizes the other's knowledge. The schools should be able to keep their mission, get what they need from the businesses, and be free to turn down unsuitable suggestions.

What expectations do business people have of schools?

- o Kaplan: We want a definition of the need--but not the solution, a collaborative approach to developing a solution, respect for volunteer expertise and time, the opportunity of saying no to a specific idea if we are not equipped to deal with it without rejecting the idea of collaboration, and a differentiation of the responsibility of each partner.
- o Wasson: Business expects the school to prepare the students for the experience. Businesses want to get involved with special ed students and those who are alienated, and they want the schools to get those students ready for the experience.

* Sacramento, CA. Question: Are the students paid? How do you prevent businesses from taking advantage of the students and giving them menial tasks?

o Church: We don't recruit community placements to provide jobs. They are more interested when they realize they are volunteering their time and don't have to have a paid employee. Sometimes students are offered paid jobs, but these can be narrower than what our program intends. We make it clear at the outset that our program and our students have certain needs. We negotiate a curriculum guide for each site, ensuring that students experience a broad aspect of academic, career, and life activities.

* Sacramento, CA. Question: Do you accept the liability for each student? Do you have a contract between the school and the business?

o Church: Our school district carries a large indemnity policy, and students must have releases signed by their parents and carry 24-hour insurance. Some of the more hazardous sites require an additional waiver. We have been fortunate and have had no problems in our 10 years.

What strategies have you used to involve employers in your programs?

o Bradford: We get across the idea that it is their school. Our situation is unique in that we built a new school. There is a sense of ownership because they have been involved from the start. Their most important message has been, "Make sure you know exactly what you want of us, and make our time meaningful." The objectives for our technical committees are set by the advisory council. There is a balance between the board of education and the advisory council. We take the advice employers give us and have a mechanism to get results.

o Packard: In Arizona we found that our partnerships have formal structures. The larger organizations are business and industry/education councils and alliances, and we also have community organizations, such as the chamber of commerce education committee, Rotary clubs, and JTPA [Job Training Partnership Act], that have been used to establish partnerships. In addition, especially in rural areas, there are informal partnerships of teachers getting involved with businesses in the community. Some community colleges have designed programs specifically for an industry.

o Wasson: We have developed personalized, long-term experiences for the businesses and the school people over 5 years. Individuals have come to know each other as friends. Members of the partnerships know they can count on each other. We have social events that foster the friendships. A new strategy that makes teachers more aware of the businesses is a sabbatical year for teachers in a business setting. The cost is shared by the school district and the business.

o Church: Over our 10 years we have developed long-term friendships between the school people and the resource sites. We have inservice seminars at the school for our resource people. We do some mutual problem solving at these seminars. We do staff presentations at large organizations. Our quarterly newsletter reinforces our successes and lets employers know they make a difference. At the end of the year we have a resource appreciation

luncheon, and there are quarterly informal luncheons at the schools. These informal strategies have enabled us to maintain trusting relationships.

What are the benefits for those in a partnership?

- o Wasson: For the schools, the benefit is primarily increased access to resources, especially in high-tech areas and science. The schools do not have the equipment and the expertise that the companies have.

I think our businesses feel their investment of time and money strengthens our schools, making our community more attractive to workers they may want to recruit.

- o Packard: Among specific partnerships in Arizona we have a nursery that is located on a school's property. The school provides the management and maintenance, and the company provides the trees and equipment. In another case, a rural school's partner is the forest service. The school has a land laboratory and provides the forest service much-needed manpower. The school has restored a meadow and benefits from weekly meetings with the forest service.

- o Moderator: It's important to see these examples of the schools giving back and not just taking.

What lessons have you learned, and what advice do you have for those wishing to start partnerships?

- o Packard: It is important to establish the roles of the partners. Scheduling is important--the time of day for meetings and their length. It is important to establish good goals and to have open communication channels, both up and down. Misunderstandings and mistrust can result if communication is ignored.

- o Kaplan: We've learned that in partnerships you share goals, relevant expertise, mutual respect, sensitivity, diverse perspectives, the desire to work together, and the commitment to meet the goal. We've learned that partnership is a developmental process that requires nurturing. We each need to understand the different organizational culture issues. We need to develop a common language and share risks as well as opportunities. Corporations risk overstepping their boundaries when they get involved outside their domains, and schools risk the criticism of being unduly influenced by business.

We've learned that time frames are very different in education and industry. Businesses may need to lengthen their lead time and schools to shorten theirs.

Finally, I think we've all come to realize that we each have naive perceptions about the other's environments and resources. The public sector chain of command is complex, and educators operate with diffuse and competing hierarchies--the parents, the school board, the district superintendent, the legislature, the taxpayers. Businesses, schools have learned, operate in a vertical chain of command with clearly defined

objectives and budget constraints. We are getting to know one another and have a lot more work to do.

SESSION 2: Becoming Informed about Business and the Economy: Collaboration Provides the Missing Link for Educators and Students

Tuesday, October 29, 1985

2:00 - 2:50 p.m. EST

Moderator

John Robinson, Manager
Instructional Resources
Motorola, Inc.
Schaumburg, IL

Panelists

Anthony Suglia, Director
Affiliated Councils and Centers
Joint Council on Economic Education
New York, NY

Richard Ungerer, President
National Institute for Work
and Learning
Washington, DC

Frank Walton, Vice President
Research and Forecasts
New York, NY

Ann Baker, Associate Director
Charleston Higher Education
Consortium
Charleston, SC

John Bishop, Associate Director
National Center for Research
in Vocational Education
Columbus, OH

Cathy Ashmore, Director
Entrepreneurship Program
National Center for Research
in Vocational Education
Columbus, OH

HIGHLIGHTS

The Hearst Corporation sponsored a survey to determine the public's understanding of business and economic concepts. Frank Walton, of Research and Forecasts, which conducted the survey, will give some background it.

- o Walton: One thousand households across the country were surveyed about a year ago to test understanding of the basic kinds of concepts that appear on the business pages or major news sections of daily newspapers. We found an unanticipated amount of misunderstanding. Small minorities of Americans knew what the Dow Jones Index is, understood the gross national product, the consumer price index, or the role of the Federal Reserve. There was also poor understanding of the way the private sector works. Almost 40 percent believed that after-tax profits of business are over 50 percent of its sales; in fact, according to the best estimates, the average is something like 4 percent. There was better understanding, however, with regard to concepts and issues that affect people's lives directly-- adjustable rate mortgages, minimum wage, and requirements for social

security benefits. About 60 percent cited television and newspapers as their most frequent source of economic information. Fewer than 10 percent said they get their economic information from books, schools, bank officers, stockbrokers, or lawyers. Asked at the beginning of the survey if they felt their knowledge of business and the economy was satisfactory, about half said no.

- o Suglia: Dr. Walton's survey confirms something we have believed. Someone once said that the American economy is the eighth wonder of the world and our ignorance about it the ninth wonder!

In what ways are schools affected by having good information about business?
How do we get good, solid business information to the schools?

- o Baker: Schools need to do their homework before approaching businesses. They need to know what the particular business is interested in and how business can benefit from a project. Businesses should be involved in planning the project. Schools should go to business with a concept and be open to changes and ready to engage in an open, continuing dialogue.
- o Suglia: The business and educational communities need to understand the objectives of economic education. We should all be agreed that we are encouraging rational decision making. We are helping kids with how to think rather than what to think. Secondly, an economic education is designed to prepare students for responsible citizenship, effective work, and rational consuming. The objective is not to create economists out of 44 million kids in the nation's schools.
- o Ungerer: We need to remember that business is comprised of a very diverse set of institutions--big corporations and small businesses. They all have a strong interest in being involved in economic education. Small businesses can see ways to involve students in short-term programs, and larger businesses frequently have to look at the long term to see benefits to their self-interest.
- o Robinson: I'd like some comments on experiences with smaller businesses. From my perspective, it seems that when business is discussed, Lee Iacocca stands as the representative, when in fact, the cleaner and the plumber can be spokespersons just as well.
- o Ashmore: I think small business creation needs to be included in the idea of economic development. I'm not sure economists in the past have counted that in. It was either bringing large corporations in to solve unemployment problems or helping medium-sized businesses to grow. The opportunity to create new, innovative small businesses in all communities of all sizes is one of the most exciting approaches to what our economy is about.

What is being done to add business and economic concepts to the curriculum in the nation's schools?

- o Suglia: Some form of economics education is required in 27 states. The Joint Council [on Economic Education] has developed the Master Curriculum Guide in Economics, which is a resource guide that defines 22 important concepts in economics. Guides are provided for teaching economics at

different school levels. We also have multimedia programs on several topics. Of course, the classroom teacher needs to be trained to use the materials.

- o Baker: South Carolina is one of the states requiring a semester of economic education for high school graduation.
- o Suglia: The South Carolina law was a collaborative effort on the part of the educators and the business and labor communities. There is funding support of \$100,000 to train teachers and provide materials.
- o Baker: There is some feeling that there may not have been enough lead time before the requirement was instituted, with the result that some of the teachers may not have been adequately prepared.
- o Ashmore: The movement to add entrepreneurship education to vocational education is likely to affect many students. We feel that teaching economic concepts is the base from which students can consider how they can fit into the economy as entrepreneurs. We advocate that the concepts of running a business be taught in high schools: marketing, keeping business records, developing a business plan. High school vocational programs need to teach an awareness of these concepts as a foundation for career building. Not only will those students who start their own businesses benefit, but those who become employees will also have a much better understanding of the problems of their employers.
- o Ungerer: I want to make a plea that programs of the type just described take advantage of the existing work experiences that many students have from part-time work during the school year or full-time during the summer. The fast-food and lawn-mowing work experience can be integrated into these programs. Studies indicate that 50 percent of high school students have some type of employment experience.
- o Robinson: Any comments on experiences with Junior Achievement?
- o Ashmore: Junior Achievement, for a long time, has been doing product development and selling, but recently they have a new approach to teaching the concepts of small business start-ups by working in high school classes (such as sociology), in 7th grade, and in 5th grade. They are teaching economic competencies as well.
- o Suglia: We have a national specialized center on entrepreneurship education at Baylor University with the input and support of the National Federation of Independent Businesses. Teacher-training workshops are conducted throughout the country. I think entrepreneurship will become very much a part of the school curriculum.
- o Ashmore: There is a consortium of 22 state vocational directors here at the National Center of Research in Vocational Education. We are doing teacher training, workshops, and product design to enhance vocational teachers' ability to deliver entrepreneurship education. We are working closely with the Baylor program.

What are some constructive examples of initiating collaboration?

- o Baker: We have approached the business community in a variety of ways. Recently, we have approached some of our large corporate facilities and asked if they would allow our college faculties to share state-of-the-art research equipment. We now have a series of regular meetings between faculty and corporate personnel. There are possibilities for joint research projects, shared equipment, sabbaticals, and internships. We were very careful in approaching the companies and made it clear that we were aware of their proprietary concerns. This has been very successful. I built on previous contacts I had had with these companies. It's critical to know what the individual companies are like. Many of the smaller companies have individuals with a personal interest in the community's education and students. They are likely to be receptive to our requests.
- o Suglia: Effective teachers use the community as a classroom. They bring in resource people, conduct field trips, and arrange for use of special equipment. All of our centers of economic education are made up of people from all sectors of the community. Advisory committees include representatives from business, finance, and labor. This collaborative movement has been going on for 35 years.
- o Bishop: I want to bring up an example not of good collaboration but of none. In the course of some research we were doing at Nationwide Insurance, we asked what kind of information they obtained from schools when they were considering which young people to hire. They had gotten permission from 1,200 young people to send requests for transcript information to local high schools. They received only 93 responses. This is one of the kinds of things for which employers and high schools need to create a framework.
- o Ungerer: The career passport concept that the National Institute for Work and Learning has been working on starts with the belief that young people have many experiences--employment, volunteerism, Junior Achievement--that have been helpful and can be recorded. The young person is helped in an employment interview by having this career passport. This project was developed collaboratively by employers and educators.

What are the benefits of collaboration?

- o Baker: A greater understanding emerges. A deeper appreciation of the likenesses breaks down barriers. In a summer management training program that included principals and upper-level corporate people, participants could see similar problems and learned to utilize successful mechanisms.
- o Robinson: How are collaborative efforts most productively initiated?
- o Baker: We have gone to the chief executive officer in small or large companies, said what in general was wanted, and then asked the CEO to identify the appropriate person in the company and to make the initial contact with that person. We then follow up.

- o Walton: When you approach the corporation, remember that the whole concept of collaboration means that the business should also feel it's getting something out of it [collaboration], be it community goodwill, better understanding of the community market, or whatever. That bottom line-- "What's in it for us, too?" should be kept in mind.
- o Robinson: I've had the opportunity to handle many of the requests that have come to Motorola's CEO, and the most successful ones say up front what they want and identify someone to work. If the letter is too long, it is hard to work with.
- o Suglia: A group of kindergartners in Texas conducted market surveys, determined the sale of a product, sold stock, applied for loans, researched the cost of production, and learned a great deal about economics and the principles of entrepreneurship. All of that was possible because of collaboration. Kindergartners learned some things they'll retain for the rest of their lives.

SESSION 3: The Do's and Don'ts of Implementing Collaborative Programs

Tuesday, October 29, 1985

3:00 - 3:50 p.m. EST

Moderator

Donald M. Clark, President
National Association for Industry
Education Cooperation
Buffalo, NY

Panelists

Tom Nelson, Executive Director
Business-Youth Exchange
Portland, OR

Tom Boldrey, Director
Education for Employment
Will County Regional School Office
Joliet, IL

Andrea Hunter Baker
Youth Development Specialist
Northwest Regional
Educational Laboratory
Portland, OR

William H. Adams, Superintendent
Salem County Vocational Schools
South Jersey Employer/
Education Consortium
Woodstown, NJ

Cathy Ashmore, Director
Entrepreneurship Program
National Center for Research
in Vocational Education
Columbus, OH

HIGHLIGHTS

- o Clark: We need to recognize that industry-education collaboration or partnership in education is central to furthering school improvement and education's role in economic development. In our postindustrial era, there is a need to reshape our schools' academic and vocational programs to be more responsive to both students' and employers' needs. A broad-based collaborative effort linking the employment community and education facilitates the school-to-work transition and the training or retraining of adults, employed or displaced. Interest in partnerships is growing, and the atmosphere couldn't be better.

What's the most important thing, based on your experience, in making a collaborative effort a success?

- o Adams: In our initiation of the consortium, we had to be concerned with the dynamics of the people we were working with. Educators are busy, and employers are busy. We all had our concerns, but we found that until we

identified our mission and our goals, we weren't getting anywhere. That gave us purpose and helped our funding. After we had our guidebook for achieving our master plan, it was easier to increase membership and build enthusiasm.

- o Nelson: I agree that clarity, agreement on goals, and commitment on the part of all partners to attaining those goals are most important. I would add that, in a community where business has been involved for many years with the public sector to work on the problem of youth unemployment, we have learned that it is important that all partners contribute to the design and development of a program model and that they clearly sense that they will benefit from the collaboration.
- o Boldrey: You must have the top executive officer personally and professionally committed. Without that, you can spend a lot of time at the lower level and then run against a wall. Another point is that collaboration is fluid and not static. Even the goals and objectives may change.
- o Baker: It's critical to think about two levels of what makes a program successful. In terms of the planning, it's necessary to have clear goals, but accompanying those goals have to be realistic time lines and expectations. Without those, people become discouraged. In daily operations, the most critical element is communication--among the decision makers, between the operation staff members, and with general public. It allows people to emphasize positive things that are going on while working through some of the problems and issues. Communication of this sort can provide encouragement.
- * Sacramento, CA. Comment: We have found that the first thing businesses and industries are interested in is how we'll take care of the liability insurance problem. In our county we have 3,000 high school students participating in training at business sites. The school system assumes all liability.

Who has been most instrumental in making the collaborative effort work?

- o Nelson: In Portland our experience is that a small group of individuals representing key institutions has been most influential. About 2 1/2 years ago, I, as a representative of a business group, met with a representative of city government and a person from the public school district to think about possible collaborations. Later on, high-level staff from the Private Industry Council and other institutions, with strong support from the top levels of these organizations, became involved.
- o Adams: One of our participating groups initially lent our consortium a person for 3 months to act as facilitator. It really helped us get started.
- o Boldrey: The active involvement and advocacy of the person from the private sector is a key factor. When a key executive or plant manager goes to a school district with an offer, it usually happens. Sometimes a neutral party or change agent can be an excellent facilitator to help get things going and act as a translator with both parties.

- * National Conference of State Legislators. Question: Do you have any thoughts on involving state legislators or governors in order to have successful programs replicated?
 - o Adams: Our consortium is being used as a model in New Jersey through funding from the State Department of Education and Department of Labor.
 - o Boldrey: We have involved the Illinois State Board of Education, Department of Adult Vocational Education, in order to provide dissemination of information about our program.
 - o Nelson: Oregon has a program partly funded by Public/Private Ventures in Philadelphia involving a governor-appointed, statewide committee of people concerned about youth unemployment. Some JTPA funds can be spent on demonstration projects, and attention will be called to the successful projects to ensure that state funding will further them.
- * Sacramento, CA. Comment: In California our first collaboration was with the state legislature. When the legislature passed laws that authorized schools to work with business and industry, then things started to happen, and collaboration has come down to the local level--even the individual classroom level.

What lessons have you learned about what makes a collaborative effort get off task?

- o Boldrey: If you don't involve the chief decision maker from your organization and the school district, it can get offtrack. I also think you need to remember that if you lock onto one thing, you lock out other things. There can be negative consequences of focusing on only one objective, as you may not then look for an opportunity to change and see that it's a fluid collaborative effort.
- o Nelson: In our experience, the thing most likely to throw things offtrack is having the institutions that are involved in the collaboration lose sight of the shared goal and allow turf problems or institutional stereotypes about each other get in the way of the implementation of an action plan that supports the goal.
- o Adams: We function with five subcommittees, and we find that unless our executive committee keeps in close communication with those subcommittees, it's easy to get sidetracked with special projects. Those may be good projects but not in the overall best interest of the consortium. Thus, that communication element is all-important.
- o Boldrey: Getting too much publicity too early can lead to spending too much time with the glitter.
- o Baker: Having realistic views about progress, not expecting everything to be smooth, and having realistic time lines are necessary. Without realistic time lines, failure and frustration will be built in.

- o Clark: Tom Boldrey, what's your approach to getting CEO's on board?
- o Boldrey: The approach is involvement from the very beginning. I do that personally.
- o Clark: Out to the sites now. What lessons have you learned about what lets a collaborative effort get offtrack?
- * Sacramento, CA. Comment: A big fault is not taking the industry advisory council seriously. If you go to the work of establishing it and getting the right people on it, and then don't take it seriously, the program will fail.
- o Boldrey: As Andrea said earlier, it's essential, especially in starting up new collaborations, to keep in mind that there's a natural change process. After an initial period of excitement and enthusiasm, there's going to be a period of wondering whether you should be doing what you're doing, having doubts, and being criticized from the outside. You should realize that this is a natural part of the phenomenon of change and collaboration. If you do an evaluation at a certain point, you may be giving wrong data because you may be giving data about either the enthusiasm or the valley of despair and not be taking into account the total change process.
- o Clark: Out to the sites again. What makes the collaborative process go offtrack?
- * Washington, DC. Comment: Maybe too much money. We need to have continuity of staff. If staff is hired because of money rather than commitment, changes may occur too often.
- o Ashmore: We've done collaborative partnerships at the state level between agencies interested in entrepreneurship education. One of the problems is that you have people who get excited and commit to it [collaboration], and then they ride along and let others do the work. One of the challenges is to let everyone who has made the commitment feel a part of the effort. In addition to money, they can provide facilities for meetings, equipment, envelopes, postage, and staff time. We've even had all the people in our network provide mailing lists so that when we're planning a conference, we don't have to create our own.
- * Washington, DC. Comment. We've been working with the District of Columbia Public Schools for almost a year. You have to have the CEO committed, and you have to have your chief state superintendent committed, and you have to have a continuum--people at the top, at the bottom, and in the middle.

Let's pull together your experiences. What are the number one items on your Do and Don't lists for establishing and maintaining industry-education collaboration?

- o Nelson: Do involve the business community in the planning of your programs, and do become imaginative about the benefits to business that will result from the collaboration.

- o Baker: Recognize and appreciate other agencies' needs. Also, you must have adequate planning time with realistic expectations. Documenting what does work and what doesn't work is also critical for long-term success.
- o Adams: Both the business community and the education community have people who are very busy. If you're going to bring leaders together, make sure there's a plan for what's going to be accomplished--some substance to what's being done. Some people have had bad experiences, serving as a rubber stamp, for instance. We've also found that you shouldn't ignore any providers of services. Some of them can be concerned about possible duplication of efforts.
- o Boldrey: Legitimate candor and openness. Just as we have learned that profit is not a dirty word, so we need to recognize that "What's in it for me?" is not a dirty word. It needs to be out in the open.
- o Ashmore: All members of a collaborative effort have to have commitment to the concept. They go into it not knowing what will be asked of them, but if they believe in the mission of the organization, all kinds of wonderful things can happen.
- * Woodstown, NJ. Comment: If you don't involve your members, you will lose them.
- * Council of Chief State School Officers. Comment: Preparation is important. Before you go to see a CEO, you need to do your homework, not only about the business but also about your school district and about what the mutual benefits should be.

SESSION 4: Cooperative and Experiential Learning: Is It Worth
the Time Away from the Classroom?

Wednesday, October 30, 1985

1:00 - 1:50 p.m. EST

Moderator

Thomas Owens, Senior Research Associate
Northwest Regional Educational Laboratory
Portland, OR

Panelists

Judy Breck, Coordinator
MENTOR Program
New York, NY

Ronald Nelson, Assistant Principal
Goodrich High School
Fond du Lac, WI

Joanne Dupperault, Director
Executive High School
Internship Program
Hillsborough County Public Schools
Tampa, FL

Carl R. Johnson, Director
Cooperative Work
Experience
Utah Technical College
Provo, UT

Garry Wagner, Director
Community Experience for
Career Education
Tigard High School
Tigard, OR

Laurie Moon Chauvin, Coordinator
Yankee Intern Program
Boston, MA

Steve Franchak, Senior Research
Specialist
National Center for Research
in Vocational Education
Columbus, OH

HIGHLIGHTS

How do students' experiences in the programs relate to how they spend the rest of their time in school?

- o Wagner: Our (CE)₂ [the acronym for the Community Experience for Career Education Program] students are in the program for the entire day except for first period. Within each individual's study plan, there are some components dealing with high school requirements and some dealing specifically with community experiences. Some of these overlap. Many of these components are completed while the student is in school--"in-center." Students complete 14-page booklets for each job they visit. Each semester, a student spends 6 to 8 weeks at a job site that was chosen because it is especially interesting. In addition, they complete packets of

survival skills, related to such topics as insurance, health emergencies, and checking accounts, and certifiers in the community go over the completed packets with the students.

- o Dupperault: Our interns are out of school all day except for first period English class and the Friday seminars. In the seminars I bring in outside speakers, and we do a lot of interaction in time management, assertiveness training, and communication skills, and we take field trips. The seminars give them the opportunity to integrate the learning from their internship experiences and networking. The internship learning doesn't really connect to school till they either go back to school the next semester or go to college. Then, they tend to find school easier and to manage their time better.

* Washington, DC. Question: In the high school internship program, do the students have to have all their credits for graduation before taking an internship?

- o Dupperault: In my program there are students who take a fall internship and then go back to school in the spring for courses and some necessary credits, such as English and American democracy. However, they do have most of their credits and, by Christmas, many have been accepted by colleges.

- o Chauvin: We plan ahead and do not accept a project unless we think it is worth college academic credit. We have the students full-time for 12 weeks. It's my job to make appropriate matches between students and projects.

What is done to assure that learning is taking place in out-of-school experiences?

- o Johnson: Utah Tech's philosophy is that the learning that takes place during co-op work experiences can and ought to be equivalent to the learning that takes place in classrooms and laboratories. We have significant faculty involvement. Faculty coordinators are in charge of students in their departments. They recruit co-op students and employers, approve work sites, assist students in writing learning objectives, grade students, and visit students on the job. Co-op is part of the job description of all faculty and academic administrators. Twelve to 15 co-op students equal one-quarter of a teaching load. Co-op courses are graded, credit courses. Up to 9 credits of co-op may be given per quarter, and up to 18 credits may be applied to a 2-year degree.
- o Nelson: We have even better documentation of the learning in our program than we do for regular courses because we have an activity sheet based on a task analysis for each site. The school's learning coordinator and the resource person both work closely with the student on all aspects of the activity sheet.
- o Dupperault: Interns turn in weekly logs, are given two written evaluations by their sponsors, are visited at the sites, and do final papers and final projects. We keep pretty close tabs on them.

- o Chauvin: We also monitor our program closely. All the students, sponsors, and program staff are brought together for an orientation that makes them realize they are part of a larger program. I visit each site at least once, and all students are brought back to Boston about the seventh week for a 2-day information-sharing session. Students are encouraged to involve their faculty when appropriate. Students and sponsors fill out evaluation forms after the second week and at the end of the 12 weeks, and students submit a final report.
- o Franchak: Last year, under the sponsorship of the Office of Vocational Education of the U.S. Department of Education, we conducted a study to determine the amount of time vocational secondary students spent on specific tasks or learning activities. Briefly, the study used systematic observation techniques, and we observed 40 secondary school students from 5 school districts in 4 states on a minute-by-minute basis. Of the students, 34 were females and 16 were males, 13 were in business and office education, 13 in trade and industry education, 5 in health, 4 in marketing and distributive education, 2 each in home economics and technical education, and 1 in agricultural education. The students were very productive; approximately 90 percent of the time they were on task. They were off task about 1.2 percent of the time, that is, nonsanctioned off task time. This is a method that faculty coordinators can use to assure that learning is taking place.
- o Miguel: In a study of time on task run in the classroom, there was a much higher percentage of time off task.
- o Franchak: Time on task in the classroom was approximately 70 percent.

What is the role of cooperating employers or resource people, and how are they prepared?

- o Breck: I am from the private sector, and Thomas W. Evans, who conceived this program, is a lawyer. The Federal Bar Council, one of the sponsors of MENTOR, is made up of some of the East's top lawyers. This is a program created by people who want to help education. There is a tremendous enthusiasm in the bar of the City of New York, and there is cooperation of the school board. The role models, the lawyers, are interested in the kids, and they tell about the law and what they do, which requires very little preparation. They show students through the firm, and the students meet people in different occupations in the firm, who talk about what they're doing. Private sector lawyers also take students to courts and introduce them to judges. In our program people want very much to be involved. The volunteers are enriching the school programs.
- o Nelson: It turns me on to see how excited the management of a company is, and they involve their best individuals in the project. They want students to get a good feeling about business. Most organizations have education committees, and if you want to start a program, go to those education committees for help.
- o Johnson: Our cooperating employers are asked to place students in meaningful jobs that have college-level learning potential, to participate in setting learning objectives, and to assist in measuring the completion of

the objectives. They pay students the going rate. We show them a videotape about our co-op program and go through the student co-op log with the supervisor. The larger companies train their supervisors themselves for the co-op program.

- o Wagner: We see the role of our employers as that of instructors, facilitators, and role models. We expect them to involve the students as much as possible. We spend a great deal of time in advance with our resource people and use a guide. Close monitoring takes place.
- * Washington, DC. Question: What strategies are most effective for informing counselors about co-op and experiential learning?
 - o Wagner: We work closely with the five counselors in our counseling center. Our former director, Dorothy Shinn, is in the counseling center. The counselors direct many students to us.
- * Lincoln, NE. Question: What do your students do on the fifth day of the work week, and how do employers react to the 4 days of work?
 - o Nelson: They're in-house and have hour-long conferences with the learning coordinator to relate their learning experiences, prepare for their next placement, and review their aptitudes and interests and their work. They are full-time the other 4 days. If they are with fire fighters, they have 24-hour shifts with them. We call it a job share. We've been able to work this with all the unions, too. Instead of having the worker, namely, the resource person, turn out his 50 parts, the student and resource person turn out 50 together.
- * Florida. Question: What impact does the cooperative program have on the placement of graduates? What are its impacts on students?
 - o Breck: Many of the internship programs may lead to a job in the future, but our experience has been that we are also reinforcing kids' attitudes in school and teaching them why they should work hard and what they need to learn. The long-term impact on careers may be quite profound.
 - o Chauvin: The most obvious short-term benefit of our program is the \$2,500 salary for 12 weeks, and the academic credit is important. More important is the impact on their subsequent careers. This may be their first project in the real world, and they finish something they can put into their portfolios. It may be a student's first job or first time living away from home, and it's a good learning experience. They also become part of a network, both during the internship and afterwards. The internships seem to be quite important to students' subsequent employment, and many have been hired by quite prestigious architectural and city-planning firms or preservation organizations. Lastly, we have many sophomores and juniors who haven't made up their minds on a career who learn about careers they may not have been aware of.
 - o Dupperault: One of most positive achievements is maturity. They get the opportunity to look at career options they didn't know existed. The references are important, and their resumes benefit. Sometimes students

find out that something they thought they wanted to do just really isn't for them.

- o Owens: This question about the benefits of such programs is an essential one, and I'd like to see all of us reflect on it. Without a good answer, we can't continue to justify the existence or expansion of such programs.

SESSION 5: Preparing for the Changing Skill Demands of the Workplace:
Closing the Gap through Collaboration

Wednesday, October 30, 1985

2:00 - 2:50 p.m. EST

Moderator

Linda S. Gottfredson, Research Scientists
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, MD

Panelists

Monica Manning, Executive Director
Minnesota Job Skills
Partnership
St. Paul, MN

Sue Bradley, Curriculum Specialist
Scottsdale Vocational
Technical Center
Scottsdale, AZ

Lynette Unger, Associate Professor
Business Administration
Miami University
Oxford, OH

Geraldine Pearson, Director
Paul Lintner Center
Portland Community College
Portland, OR

Paul Erickson, Principal
Lynda Darling
Colleen Tranch
Vocational Village High School
Portland, OR

Lawrence Taylor, Program Spec.
Vocational Education Division
Florida Department of Education
Tallahassee, FL

Frank Pratzner, Senior Research Spec.
National Center for Research
in Vocational Education
Columbus, OH

HIGHLIGHTS

- o Gottfredson: Many national reports have called attention to the fact that both the career opportunities of individuals and the international competitiveness of our economy require a good match between workers' skills and employers' needs. They also note that it's especially hard to get this match when the skill demands of jobs keep changing.

What skills continue to be useful for success in jobs and careers, and have demands for these skills changed over time?

- o Taylor: The employability, attitudinal-type skills continue to be needed. If we don't provide the entering worker with these skills, we risk an

unacceptable level of attrition. When we do address attitude and give an orientation to the company, the attrition rate rarely exceeds 5 percent.

- o Erickson: On my school's citizens advisory committee, I have the publisher of our local weekly newspaper. Through his efforts we've been able to upgrade our equipment at no cost to the school so that it's compatible with his equipment. We do computerized typesetting and have a microcomputer hooked up to our typesetter. On two occasions, he has had trouble with his equipment and has used ours to put out his paper. This is a good example of how we keep up to date and use industry sources.
- o Tranch: We work with a nursing home in health occupations instruction. I consult with them and take our students there for their clinical experience, and they help keep me up-to-date on new equipment and procedures.
- o Pearson: In the electronics industry, when you take a deep breath, everything has changed. We constantly have the industry coming to us with the request to train people in a new skill. We're now doing a computer graphics certificate and will have a master's in a couple of years. The Lintner Center is financing the development of that program. There is new stuff daily, and if you're in education, you have to keep on top of it. You can't teach outdated skills. It's a high stress thing to be in high-technology education.
- o Gottfredson: What about the skills that have stayed in demand?
- o Bradley: Most of our students are college bound, and we're asked to justify vocational education. It's difficult to keep equipment up-to-date, and we've had to move emphasis away from product producing and to the process. We help our teachers facilitate the transfer of learning, develop higher thinking skills, and put greater emphasis on the basics.
- o Manning: Although we fund customized training programs at the postsecondary level so that the skills change for different proposals, I think adult vocational educators do have the basic question of whether to expand general, preparatory-to-work skills or to do more in the customized area. It should not be an either-or question. We have to respond to both. We need to transfer the funds used for programs that are outmoded into the new customized programs and at the same time expand programs that educate students in the basic skills.
- * Lincoln, NB. Question: How are you retraining staff to provide and deliver the training for changing skills?
 - o Pearson: The universities participating in our cooperative group work with our community college staff in order to help them improve their skills, and that creates a continuum.
- * St. John's, Newfoundland. Question: What is the variety in the length of the upgrading programs, and how flexible is your institution in delivering short- and long-term courses?
 - o Pearson: Totally flexible. It [training] can be as short-term as an instructor making a call to a consultant concerning a specific problem up

to a total degree. We're not locked into terms or semesters. We can react rapidly when needed.

How do you decide what skills are important?

- o Bradley: The Arizona legislature mandated competency-based education 5 years ago. The State Department of Education identified the top 40 occupations in Arizona, based on labor statistics and other data. The local agencies arrange programs from this information, and yearly changes may be necessary. We're relying on the State Department of Education for this list and also for competency lists.
- o Unger: The necessary skills are pretty dynamic. We rely on critiques from our various clients at the end of the semester and initial briefings from our clients at the beginning--when they suggest what sort of product they are looking for. Finally, the instructor's knowledge of the trade--keeping up through conferences and the like--helps us decide what skills are needed.
- o Taylor: In Florida we let the industry determine the broad area where they need help. We then work with them and the local training agent to refine the skills that will put a person on the job as quickly as possible. We also have an arrangement with the employer to provide additional training at a tech center or a community college in the evening for employees at a tuition break.
- o Manning: In our programs the businesses have been involved in identifying the needs. But educators need to learn what assessment tools they can use to help businesses determine needs before a last-minute crisis. Sometimes businesses don't recognize the need until a new piece of equipment arrives. Educators bring a good background but need to figure out how to apply their background to help specific businesses. Businesses get tired of educators coming to them and saying, "We'd like to help you." They have the problem and aren't even sure what their needs are.

What collaborative strategies have you used, and what lessons have you learned?

- o Pearson: Industry and business have a legitimate goal: to produce a product and make some dollars. What they don't have is the knowledge and staff to do training. Those of us with backgrounds in education have that. We know how to educate adults and can do a lot to help businesses have employees who are productive and cooperative. In the high-tech businesses, most of the employees are very task oriented. How do you get such an employee happy and successful at managing a work force of 300? We can help with that. We have to produce a whole person. We're professionals. They go to advertising consultants and engineers; they need to go to educators for training. We can be not only a viable partner in economic development but also an exciting and necessary agent to all the programs.
- o Gottfredson: What I hear you saying is that educators have something to sell and they need to sell it to business. How do you target those to whom you think you can offer something?

- o Manning: Educators need to look at how they have approached businesses in the past and think about how that kind of approach may need to change. Education has tended to be the poor friend in the community, generally asking for something from business. It can require a whole new mentality to say, "We have something of value, and we need to sell that to business." The approach becomes a strong, confident, selling perspective. It takes time to identify how to do that and what you have to sell.
- o Taylor: I think a lot of educators don't know how to make their presence known in a community. In Florida there has been more effort to make these people aware of strategies and to get them involved with local economic development groups, to become members of the Chamber of Commerce, etc., to make presentations to service and social organizations and sell their programs. These efforts have to be continued. Sometimes we're criticized for spending our megadollars on education and 5 cents on telling people about it.
- o Gottfredson: Some of you have mentioned the necessity for doing your homework before beginning collaboration to learn about the other organizations so that they'll take you seriously. Does anyone want to add to that?
- o Taylor: That's the biggest part of my job. We have to know what's available to help a client. We take the responsibility of knowing what the districts can provide and giving the client the most meaningful training program.
- o Manning: Any person who goes to talk to a business needs to know not only its main product but also its processes. Build a network, and use your knowledge when you go to other businesses in the same field. You need to read business journals and have information about corporations and about business trends and changes in the economy.
- o Unger: One way to gain a lot of client knowledge is to follow alumni from your program. They can give you a lot of inside information from wherever they are working. We have secured some clients that way. Also, whenever you can generate press coverage of your program, do so. That has helped us.
- o Tranch: I want to add something about how our program has stayed up-to-date. A few years ago, Oregon added a state certification requirement for nursing assistants. We changed our programs; we established a clinical site as a nursing home, where we gave supervised training, and gave classroom training at the school. We got our foot in the door through a job skills program we had at Vocational Village. It has become a thorough collaboration.
- * Anaheim, CA. Question to Manning: Are the persons trained in the various programs picked by the industries or the educational agencies, and do they have to meet any qualifications, such as JTPA eligibility?
- o Manning: The approach to eligibility is twofold. If a business has a certain need, we want the number of people required to meet that need.

Frequently, the business and the school jointly recruit and select people for the training program. The business doesn't need to guarantee hiring people, but they do need to present some indication of need and plans for expansion. They make sure that the program will meet their needs. Our placement rate has been 99 percent at present. We do target displaced workers to be sure they have access to our training programs, but there is not an economic requirement.

o Taylor: We are training 600 people for a plant in central Florida and have tried to coordinate with several agencies so that everyone gets an equal shot to go into the training program.

* Lincoln NE. Question to Taylor: With regard to the program you have just mentioned, do you have a directory of trainers and all kinds of training sites so as to find quality training for that company?

o Taylor: Yes, we have access to all that and beyond. We had to advertise in a national magazine for one employer, and there were only five people in the United States who knew how to teach a certain thing. Usually we rely on the industry itself to provide the skilled instructor and we negotiate the site of training. We have mobile laboratories and classrooms and also use schools, community colleges, or vo-tech centers, and we have even rented storefront space.

SESSION 6: Technological Skills: How Schools and Businesses Can Meet
the Challenge Together

Wednesday, October 30, 1985

3:00 - 3:50 p.m. EST

Moderator

Russell Rumberger, Research Scientist
Institute for Research on Education
Finance and Governance
Stanford University
Stanford, CA

Panelists

Charles Sutton, Assistant
Regional Superintendent
Champaign/Ford Counties
Regional Office of Education
Rantoul, IL

Kenneth McCourt, Director
Product Service Training
John Choulochas, National
College Coordinator
General Motors Corporation
Warren, MI

Chris Strother, Principal
Caddo Career Center
Shreveport, LA

Joel Kaplan, Director
Educational Programs
Peninsula Academies
Stanford, CA

Julie Graber, Director
Public Affairs
CompuServe
Columbus, OH

Morgan Lewis, Research Scientist
National Center for Research
in Vocational Education
Columbus, OH

HIGHLIGHTS

Technology is acknowledged to be an important influence in our lives and in the labor market in particular. It has been characterized as increasing or decreasing or simply changing the skill requirements of jobs. From your vantage point, what is the impact of technology on skills?

- o Graber: We see an impact on the kinds of skills that are required. Our company, CompuServe, provides an information service for consumers that includes shopping and banking capabilities. These services will expand, so the ability to use these services will depend on the skills an individual acquires.
- o Strother: I work in a secondary school with 11th and 12th graders. Our school has 20 programs and is skill oriented. We need to encourage our students to learn as much as possible about a particular skill, but we

also need to encourage both our faculty and our students to look forward to challenges and think about how the working world may change in their lifetime and to get some support skills that will enable them to adapt to change. Sometimes our students are more receptive to change than is our faculty. This need for change has to be presented in a positive manner.

What should schools be doing to prepare students for a future technological world?

- o Strother: We've seen that any experiences we can give students to get out into the actual working community are helpful. We participate in an adopt-a-school program, and our sponsors have been very good about having our students come in for shadowing and sharing resource people in all fields of expertise.
- o Kaplan: Our Peninsula Academies program operates within a local high school. It is technologically oriented, and we're heavily involved with local businesses, which provide assistance in various ways. They frequently tell us that the kids need to be prepared in their academic subjects. They need to be able to read and write and communicate effectively. Schools need to prepare students in these areas in addition to providing training in technical skills. In our program we also provide career counseling and training in job search skills, which are also very important.

What should schools and businesses be doing together to meet these needs of technology?

- o Strother: We've had very good support from local businesses. Much new high-tech equipment is very expensive, and we all know that schools face budget crunches. Sometimes we've had equipment donated or lent, and sometimes students have been able to go into businesses and get some experience in seeing the equipment in operation. We get a lot of expertise from the community that we couldn't have paid for even with unlimited funds. We try to be aggressive and tell our business partners, "We need what you have to offer, and we're willing to listen." It's not always what we'd rather hear, but we try to act on the things they say to us.
- o Graber: We're involved in the adopt-a-school program also, and I can speak from the business point of view. We've worked with two local schools to assist their computer programs. In one instance, we helped them set up labs and acquire hardware, and, in the other, we've been more involved in curriculum development. In both cases, we've provided some technical expertise. Our whole orientation is that we have an obligation, as one of the high-tech companies in the community, to help schools and give students exposure to high tech, from both an experiential and a career standpoint.
- o Kaplan: The Academies is an intensive business-schools partnership. There are various components from the business side that help make it work--speakers, field trips, and jobs. One of the most important ingredients is having business people acting as mentors to students, interacting with them on a one-to-one basis, helping them make decisions,

assisting with schoolwork. Students can go to the mentor's place of work and shadow the mentor for a day or sometimes just get together for lunch. The mentor program is an important way in which businesses can help high school students.

- o Strother: I'd like to say amen to that. We've found that shadowing gives a student the opportunity to see all aspects of a position, and that seems to help them a lot.
- o Rumberger: All these programs seem to do a good job of letting students know where things are right now. One of the challenges for education is planning a curriculum and teaching kids about the things we ourselves don't know about--trying to get some idea of what the future is going to be like and what kinds of skills will be needed--and then be able to adapt the skills to new situations.
- o What's going on in businesses, and how does that differ from or complement what's going on in schools?
- o Sutton: One of the goals of our projects was to link local school districts and our regional office of education with our private business and industry community. We aimed to provide specific, computer-related training programs for local businesses. We worked through the chamber of commerce to find out what kinds of technology they were using in order to use that information to help us plan training programs and curriculum for secondary-level students.
- o McCourt: Several years ago General Motors recognized that the impact of technology on automobile manufacturers would require the development of skills unavailable in traditional automotive schools. What was needed was to establish a link not only with students but also with faculty in postsecondary automotive programs throughout the United States and to work together to develop the types of skills we needed. We have been successful in transferring our company's technology to 33 colleges around the United States, and they in turn have been developing the skills we need for our General Motors dealerships. Our close association with the colleges enables us to check on the updating of the faculties' skills.
- o Lewis: A complaint is frequently made that training given in schools is behind what is happening in industry and business. Have the schools been able to respond and keep up with the rate of change?
- o McCourt: General Motors has found that, through our association with the community colleges, we have been able to keep them up to our level of need by several mechanisms. We have over 100 agreements with colleges around the country that are teaching our dealership technicians on our new products. They're also working with us on our 2-year associate's degree-granting program. If they can teach our dealers who are servicing these products on a day-to-day basis, they can transfer that knowledge into their regular classes.

- o Rumberger: What about the mechanisms operating at the high school level?
- o Strother: Our school has become more aware of our need to look outward. We encourage each of our programs to have an active advisory committee, and we encourage the businesses to consider themselves part of the school and to share things they may get at national conferences and seminars. We try to develop an attitude of, "We're in this together and need to share the resources we have."
- o McCourt: We've found it is essential that we provide and assist the school with the state-of-the-art equipment and tools that are needed. We've found that the tools and equipment being used by a school in an automotive program are typically 5 to 10 years old. As a result, graduates are not productive employees when they enter the job market.
- o Rumberger: How do schools start up a linkage with businesses?
- o McCourt: We've found several mechanisms to be successful. One of them is our General Motors training centers, of which there are 31 throughout the United States. A training center will initiate a contact with a school. The schools or colleges with which we have contracts can be linked with other schools to ensure that the transfer of equipment and technology takes place.
- o Graber: Most of our involvement comes through representation on one of the high school's career education boards. We also do some career panels. We work with a local organization called the Education and Economics Commission. It is involved with linkages between business and the schools. They organize a series of career panels that bring high school teachers and career counselors into businesses. People in our company who are involved in hiring talk about the skills they're looking for, the academic areas they're highlighting, their own experiences in getting a job, and the things that are important in our industry. This presents several methods for exchanging information.

What are some examples of the way technologies have changed the content of your programs?

- o Kaplan: Our programs operate in the heart of Silicon Valley, so we're very close to the computer and electronics industries. If there's a move toward a particular computer language or if there's a particular application, we'll get that information, and representatives from the companies help us modify the curriculum to take those changes into account.
- o Strother: Our local General Motors plant is one of the companies that have adopted us. They have made several donations of equipment for our auto mechanics program; in particular, they're trying to help us get us more parts for the computer systems. Sometimes we're working with things that are 5 or 10 years old. We see the electronics overlay in a lot of programs. We have to find people in our community who have knowledge in that area who are willing to share that knowledge with our students. We're having a problem right now with reviewing software for all the different program areas, and so we're trying to get our advisory committee

to give us advice. There's so much new material in the fields of electronics and telecommunications and computers that it's almost overwhelming.

- o Kaplan: In many cases there is a problem in keeping up, and you don't always have teachers who are willing and able to change and who are competent to teach the new technologies. Although people and industry can assist in developing a curriculum, many times what needs to happen is that the people from industry either have to come in and teach the students or have students come to the workplace for a period of time for training.
- o Lewis: Should a heavier reliance on co-op education--in which the school teaches more theory, and practice on the most up-to-date equipment takes place at the work site--be something we should work toward?
- o McCourt: We found that to develop the skills we needed in the automotive industry it was necessary to restructure a typical program. A community college program would ordinarily go 10 to 14 weeks. We've cut that time in half. The first part of the time is spent at the institution, getting the latest information, and then students go immediately into the workplace for an internship to practice and reinforce those skills they have just learned. This program required a little innovation from all the partners, but it has been extremely successful. Graduates are immediately productive. We don't have to wait a year or two for those skills to become fine-tuned.
- o Anaheim. Comment: One of the things we've been doing is to use a community classroom. Students get a certain amount of training in a traditional or self-contained classroom, and the rest of the training, 60-75 percent, is actually done at a business site, with the people there assisting the instructor. The instructor is also out there learning the new skills.
- o North Carolina. Comment: We've got to move toward revising curricula across all areas--academics and vocational--to include a futures component. We've found that our students don't have a real vision for the future because they can't think about that future in any substantial way. Secondly, we have to integrate the academic areas into the vocational, practical, hands-on experience--in a manner similar to what you're doing in the community colleges. Kids sometimes forget the theory by the time they practice in the real world. We can do this integration through providing computerized simulation, linking resources, and trying to move out of the classroom.

Who are the students who are most at risk with respect to technological literacy, and what can be done about it? Are there some students to whom we have to pay particular attention?

- o Graber: Our experience has probably been the obvious: that is, kids whose family income levels are related to their lack of exposure to different technologies. CompuServe adopted two high schools that are very different in terms of typical income level of parent or guardian. One is a suburban school and rather affluent, and the other is an inner-city school. I see a significant difference in the curriculum level and in the

amount of exposure the kids get--not only in the computer curriculum but also in other curriculum areas. The suburban high school has three different computer labs that are constantly busy. The inner-city school has one computer lab with 20 computers in it, and there are periods when those computers sit without anyone using them. I think the difference relates to the ability of the school system to provide a plan to start with. Just having the equipment available doesn't mean the teachers are any better prepared to utilize it in the curriculum or that the students are exposed to it in a positive manner. The size, financial resources, and the priorities of the school affect the utilization of equipment.

- o Kaplan: Our program is specifically geared to disadvantaged kids, so we have first-hand experience. In schools that have a student population composed largely of minority or educationally disadvantaged students, there are usually limited resources, and, in addition, the channels to tap those resources have not been developed. That is a major problem.
- o Rumberger: There has been some concern that girls are being treated differently from boys, that they are being excluded from computer programs. Do you panelists see that happening?
- o Strother: I think that in electronics, telecommunications, and computer areas, a real bonus is curiosity. We have a large business department in our school that is traditionally heavily female. However, we've seen a number of our female students become much more interested in electronics as a result of their experiences with some of the equipment, and they have moved over into that area. The pattern works the other way too, and some of the young men, who before might not have been very interested in word processing or business functions, have moved over into those fields because of interests in computers. But I do think it is somewhat of a problem.
- o Kaplan: I think one way to overcome that problem is to see that there are role models from the business community in the schools, that is, women in electronics and in other areas into which women have not traditionally gone. We've found in our program that matching a female student with a woman in that area has helped quite a bit in getting her interested.
- o McCourt: Since our automobiles have increased their proportion of electrical components over their mechanical components, we have seen an increase in the number of women showing an interest in the automotive service field. Previously, the automotive service field was seen as requiring a strong physique. We are having more women enter our programs, and they're doing an excellent job in the service and repair of electronic components.
- o Rumberger: I'm pleased to hear about the activities in which the panelists are engaged in the area of technological skills. The skills will change, but it's important that the schools are trying to keep abreast and that they maintain these linkages with the business community.

SESSION 7: Collaboration in Job Search, Guidance, and Placement: "Win-Win"
Strategies for Students and Employers

Thursday, October 31, 1985

1:00 - 1:50 p.m. EST

Moderator

Kevin Hollenbeck, Senior Research Specialist
National Center for Research
in Vocational Education
Columbus, OH

Panelists

Darrell Tucker, Career and
Vocational Education Specialist
Portland Public Schools
Portland, OR

Nan Poppe, Coordinator
Dislocated Workers Program
Lane Community College
Eugene, OR

Carol Rausch, Director
Dislocated Workers Program
Minneapolis Community College
Minneapolis, MN

Kenneth Hoyt, University
Distinguished Professor
Kansas State University
Manhattan, KS

Michael Rosow, Executive
Vice President
Work in America Institute
Scarsdale, NY

Ed Whitfield, Director
Guidance and Testing
Ohio Department of Education
Columbus, OH

HIGHLIGHTS

What are the benefits of employer collaboration in job search, guidance, and placement? What's the most important lesson you've learned from working with employers?

- o Poppe: Employer involvement in our program has been a key factor in our success. Employers can provide the realistic and accurate information that our participants need in order to make career choices and implement job search strategies successfully for themselves. We rely on employers to lead small group discussions, speak at forums and workshops, and lead tours of their own facilities, thus identifying for our participants the kinds of jobs that are available and how to go about getting them. Employers also work directly with our staff to advise us on the suitability of various training programs and curriculum. We want to be sure we are retraining people in areas where there are jobs and that the training will give them the necessary skills and knowledge. Often we have people from industry come in and teach part of the training program. We are constantly looking at new ways to involve employers.

The number one lesson we've learned is that employers are willing to be involved in meaningful tasks and that they want to have some control over what we ask them to do. They don't want to be rubber stamps.

- o Rosow: What I see the employers having to gain, especially as society becomes more diversified and more technologically oriented, is that these programs can provide them with sound opportunities to collaborate in order to get better employees, especially entry-level and specifically trained employees. There are many job opportunities existing within the hidden job markets that remain unfilled because employers believe they cannot find people who are suitable. Through these collaborations, employers have a better chance of getting someone who is trained to their needs and standards. Also they can get entry-level employees with a better understanding of employer expectations. In addition, employers get a tremendous sense of satisfaction by having the opportunity for input into the educational system and seeing results from their input--changes in curricula and in the outcomes of education.
- o Rausch: I'd like to talk about collaboration with the companies that are laying off the workers. Several companies we've worked with have been actively involved in planning the services. They've encouraged their workers to participate, and they've involved us early on so that we've been able to go out and talk to workers before they're laid off. Several times they have provided space for our programs of basic skills, job-seeking skills, and career development planning. One employer even provided extra funds for retraining programs. This kind of collaboration has been very helpful to workers seeking jobs. They feel supported and they have been able to receive more information than they would have ordinarily. Some companies have set up hot lines for job leads.

Collaboration with the unions has also been very helpful. Unions have supported the efforts, encouraged workers to participate, and have been involved in an advisory capacity. Many of the programs have hired somebody who has been an active union member with a very good knowledge of the company and the individuals employed in it. That person not only recruits people for the program but also helps them in their job searches. However, one thing that damages the effectiveness of a program like this is its becoming a political football between the company management and the union. That hasn't happened often.

- o Tucker: I think anytime all the delivery systems available work together to meet the needs of the students, we're going to do a better job. The key is whether we really do work together. Allowing students the opportunity to see what's actually occurring in the workplace before they are placed there is an important element in the collaboration. That's something we're trying to emphasize in this academy program.
- o Hoyt: Collaboration is more important in job search than in career guidance or placement. The person seeking work needs to know as much as possible about the employer, and the employer needs to know as much as possible about the prospective employee. But in career guidance, the question is, "What's the best job for the person?" The major responsibility there is the professional counselor's. In placement, the question

changes to, "Who's the best person for the job?" The employer has the primary role, and the collaboration is done by counselors and teachers to a lesser degree.

- * Florida. Question: What is the influence of the advisory committee on placement and job search? In a study I did in Florida, I found that the advisory committees were very helpful in placement and job search for graduates of the programs.
 - o Tucker: Our academy has an advisory board with members from all three of the collaborative agencies. In addition to working on curriculum and providing mentors, board members who are employed in financial services are working to establish a linkage with places of employment for students who are nearing graduation.
 - o Poppe: We also have an advisory committee, and they market our services to their other business colleagues.

What do you see as the number one obstacle for job seekers?

- o Poppe: In our work with dislocated workers, we've seen two major obstacles that are related to each other. The first is a lack of information. We think job search is really an information search and that people need to learn what kinds of jobs exist, what kinds of jobs they would like to do and would be good for them, what transferable skills they have already, and where the jobs they're interested in are. In regular kinds of information we hear a lot about layoffs, but we don't hear much about who's hiring. Then there's all the how-to stuff: how to write a resume, how to write a cover letter, how to interview, and so forth. The second obstacle, which is a result of the lack of information, is the inability of people to sell themselves. We find that if we structure our program to provide a supportive environment and the resources and tools to overcome their lack of knowledge in the job search area and restore their self-confidence, they are able to go out and sell themselves to new employers and get a job.
- o Hollenbeck: Darrell, tell us about some of the high school sophomores and juniors in your program and the obstacles they have in finding jobs.
- o Tucker: The population our Financial Services Academy serves is composed of students who have been identified during their freshman year as at risk students, as indicated by poor attendance, operation below grade level in tests of basic skills, and so forth. They are also classified as disadvantaged; many of them are minority students. We have seen two key factors in their lack of success. As we work with these students, we find that they do not see themselves as likely to be successful in the financial services field. Our staff really has to address that problem and help the students to understand that the goal is a real one. Secondly, the students don't have a network for knowing about jobs and how to get them. So we're trying to help our students establish a network for that information.
- o Rausch: I'd like to concur with what Nan Poppe said about people lacking information and self-confidence. We've seen many people in our program

who have been employed by the same company for 10 to 30 years, and the job search process is entirely foreign to them. They may have gotten a job by simply showing up and looking healthy, and now having to talk about themselves and complete applications and resumes requires written and verbal skills in which they've had no training. They lack confidence because those are not the skills in which they feel competent. So they need the program to give them support and teach them those skills. The other thing we're finding in Minnesota is that the majority of dislocated workers are from the durable goods area. From August 1984 to August 1985, we've seen a jump of 196 percent in short-term unemployment and 251 percent in long-term unemployment in that industry. So the need for career development and guidance in order to help people identify new skills and look at retraining has become very strong.

- o Florida. Comment: I'd like to share a concern. The involvement of school personnel, such as instructors, is very important in job search. Another finding of my research shows that most of the students have been placed by instructors and have gotten most of their job search information from instructors.
- o Whitfield: I concur that a lot of the information that employers get from schools comes from teachers, especially vocational teachers. But I still think we need more of a cooperative, united approach so that when employers approach the schools, we have a placement program. It's imperative that counselors and placement people work together and with employers. There seems to be an emphasis now on employability skills rather than on employment skills. When we bring in advisory committees, they are telling us that the employability skills are most important. I think that teachers, counselors, and placement people need to be involved in a program approach to this.

What strategies should be used to ensure that job seekers and employers get good information to make good decisions about each other?

- o Rosow: I think the advisory councils are very well intentioned, but I think that they fall short of the direct collaboration that Ken Hoyt is talking about and that is necessary. In our program one of the intentions from the beginning has been a strong thrust to get as many employers in Philadelphia as possible to participate. We currently have two volunteers from industry who spend a day per week in each classroom. They also meet for inservice training with the teachers four times a year. Their involvement with the teachers within the classroom seems to be the most important aspect. They become teachers themselves, and the students are brought face-to-face with real-world employers, and, in addition to providing information about jobs, careers, and what their corporations do and sometimes taking kids to visit the site, the employers also act as interviewers. Thus, the kids get the experience of a real-world interview and are better prepared for an employment interview. The classroom teacher, having worked in education for many years, is disconnected from the outside world of work and is not in any better position to teach about it than the kids may be. Bringing the employers in gives the teachers another resource. At the end of the teachers' intensive 2-week summer training period, they are required to locate jobs and make appointments for interviews themselves in order to feel part of the process.

Philadelphia, like Minneapolis, is a city where the great majority of people do not relocate but stay within the general area, and many employers have a strong allegiance to their own high schools and are keen on working with that particular school. We have over 100 employers in our program now, so it's easy to link them up with their own schools.

- o Tucker: Our program includes mentorship. Juniors are matched with an employer in the financial services field, and they continue to work one-to-one with that person during the junior and senior years. The employers take the students to the place of employment, and they also go to the classroom and establish a social relationship.
- o Hoyt: I'm in full agreement that first priority must be given to maximizing opportunities for prospective employers and employees to interact. We can't do good job placement if we keep kids away from the real world. There are plenty of people in the real world who came out of the school-of-hard-knocks who have things to teach kids.

High priority also should be given to reporting quantifiable data rather than subjective judgments. Accurate data are the best basis to use in decision making.

* Phoenix, AZ. Question: Regarding obstacles, I run across the problem of employers wanting people with experience. My college graduates have the degree but not the experience. What are some ways to solve that problem?

- o Hoyt: I think about this a lot. It seems that right now most of the working youth are not advancing toward a career but are just working. The most common job for high school kids is working in a fast-food restaurant. I see a lot of research coming out about the negative implications of such work experience. I think that to serve kids well we shouldn't look just at what's negative about those jobs. We have to look at how those jobs can be turned into positive career experiences. We have to help a kid build a resume that will illustrate to another employer that he or she has in fact acquired some adaptability, employability, and promotability skills that make him or her a good person to hire. A resume can even be built on schoolwork, if nothing else.
- o Phoenix. Comment: I find that even though there are transferable skills, if you're trying to transfer from a McDonald's into a technical area, it's hard to convince employers.
- o Hoyt: I agree. But it's not that there's nothing there or that the kid has no experience.
- o Hollenbeck: I think part of the Phoenix problem may be that it's a high-tech area.
- o Whitfield: I agree with Ken that when employers ask for experience, we have to translate that. Often they're asking for employability and adaptability skills. Many times experience required turns students off, so we have to make it clear to the students that other experience can be used.

I'd like to end our conference by asking the panelists to indicate what trends you would like to see or expect to see in guidance, placement, and job search.

- o Tucker: I would like to see guidance and job search activities be a collaborative effort involving the school counselor, teacher, business representative, and people from other community organizations, such as the Urban League. All of these people have to view assisting the student as part of their responsibility, and then the student has to take responsibility for his or her own direction.
- o Rausch: With the change from durable goods industries to other areas such as service and information, we see that there's a different kind of skill people may need to use. Also, there is a change in life-style and work atmosphere. Lower income changes what families can afford and determines how many family members need to work. There is a reassessment of how the breadwinner sees himself. There's a need to look at these issues and to consider the future.

SESSION 8: Handicapped Populations: Collaboration Equals Access
and Success

Wednesday, October 31, 1985

2:00 - 2:50 p.m. EST

Moderator

Margo Vreeburg Izzo, Program Associate
National Center for Research
in Vocational Education
Columbus, OH

Panelists

James Clark
Sam Scott
Sam Black
Administration
DeKalb County Schools
Decatur, GA

Terrence Riley, Operations Director
Association for Habilitation and
Employment of the
Developmentally Disabled
LeMoyne, PA

Marilyn Loberg, Coordinator
Roberta Hoppe
Multi-Occupation Aide Program
Fox Valley Technical Institute
Appleton, WI

James Vagnoni, Director
Physically Handicapped
Training Center
University of Pennsylvania
Philadelphia, PA

Michael Byrne, Supervisor
Catherine Droy, Coordinator
Linda McKee Szymczak, Counselor
Southwest Cook County
Cooperative Association for
Special Education
Oak Forest, IL

Rita Bennett, Assoc. Exec. Direc.
Central Ohio Rehabilitation Center/
Goodwill Industries
Columbus, OH

HIGHLIGHTS

What are some of the access problems you've encountered, and how have employers helped resolve these?

- o Black: Our biggest problem is in the area of employability skills, which include work habits, job search and job interviewing, and travel education. We find that work habits are the main problem our students have in holding down a job. In our school program students are graded daily on punctuality, dress, neatness, cleanliness, positive attitude, and so forth. Job development teachers reinforce these habits. When students are out in a job situation (unpaid), their employers conduct a job

evaluation for 2 to 4 weeks. We then work to correct whatever problems appear in the evaluation.

- o Byrne: The access problems we've experienced are somewhat unique because our program is a transitional employment program. We had to convince the two hospitals we work with that the program would benefit them as well as the students and that it would give them help in essential areas at basically no cost to them. They had job sites within the hospital that were very appropriate for handicapped students. Cathy Droy and others involved made sure that all parties were totally informed about the nature of our students, and they were closely involved in the selection of students and job sites. Another major access problem we had was that of dealing with the hospital's labor union's anxiety concerning job security. We assured the hospital we did not expect them to hire our students.
- o Riley: Our organization is involved almost solely with competitive employment for individuals with developmental disabilities. Our access problems have been primarily perception problems, that is, the perceptions of various groups about the abilities of our individuals. Parents have questions about their children's abilities and the appropriateness of competitive employment. Individuals themselves question their own abilities, and sometimes even other service providers have questions. There are a lot of misconceptions of employers about the capabilities of individuals with disabilities. Employers are the gate-keepers to jobs and can be the most critical barrier when they don't have accurate perceptions. Therefore, we believe that you can't have a successful program for competitive employment unless you have employers involved at some level.

There are two ways of dealing with the misconceptions. One is by providing information through printed material. But this kind of information exchange does not always create lasting change. More effective is active involvement. There's a lot of commitment required for employers to hire people with disabilities. In 1981, our organization developed the Volunteer Interview Network of Employers. It allows us to get employers involved in practice interviews with people with disabilities. We take individuals out to employers, who interview them and provide feedback. This direct interaction between the two parties gives us the opportunity to build a relationship with the employer. It has been quite successful. We've involved about 800 employers throughout Pennsylvania and Delaware.

- * Lincoln, NE. Question: Does your program include both secondary-school students and adult students? If so, does that create problems?
 - o Loberg: Our program includes adults and students 16 years and older. I believe it has been a benefit to have this mixed age range.
- * Phoenix, AZ. Question: We have quite a few deaf students. What are some of the jobs suitable for deaf students, and how do you convince employers to hire them?
 - o Vagnoni: It's almost a cliché at this point, but data entry is the classic area of employment for a deaf person with good hand-eye coordination and digital skills. We've had some success placing deaf students as

computer operators, where reading a computer screen is the primary way in which the person gets directions. We've had some success with computer programming, but because of the amount of communication needed with the people who want programs written for them, deaf people will encounter difficulty with such jobs. When mostly writing programs under the direction of a supervisor, they've had success.

- o Bennett: I'd like to second that. Data entry and computer operations are the areas in which we have the largest number of people with hearing impairment.
- o Black: We have three deaf students, and they're all in our power sewing classes and doing quite well. We get personnel from the school for the deaf to come out and help our teachers with communication.

What kinds of training do you provide for your clients? To what extent is it provided by employers?

- o Vagnoni: We offer two sets of curricula. In computer programming people can specialize in a mainframe or microcomputer major. The curricula were designed by local business. We have guest lecturers, field trips, and mock interviews, and persons from business serve as evaluators or personal advisers to students. Each student has a 12-week work experience.

The information processing career training offers a choice of major also. Industry is involved in the same ways. One of our students, who is totally blind, was helped by the Philadelphia National Bank. Their technical people and ours devised a system using a microcomputer that talks to their host system.

- o Bennett: For each vocational program we have, there is a business advisory committee. We don't establish training programs before a market analysis has been done. The advisory committees focus on curriculum, evaluation, application, and placement. Computer operations and computer programming curricula include internships. The placement process continues throughout the curriculum. The training programs all have specified requirements for graduation.
- o Droy: In our hospitals program, training is initially provided by the employer. If additional help is needed, I provide more intensive, one-on-one job coaching. I monitor the students daily, develop job-training plans for each, and analyze each task in the plan. Our students are currently being trained as dietary aides; janitorial aides; transporters; ground maintenance workers; print shop aides; warehouse supply clerks; therapeutic recreation aides; and clerical aides in psychology, clinical laboratory, and human resource development departments.
- o Hoppe: The multioccupational aide [MOA] cluster consists of three components: the 2-week overview called the MOA mini; the MOA regular, which is 36 weeks long and is held off campus; and the on-campus, 18-week foods program. Students are able to learn skills on a variety of equipment within a real work environment. The off-campus site is an area retirement home with independent living apartments and health care rooms. The on-campus foods program is an institutional kitchen in a school

setting that is used by the entire food service staff and traditional students. The program is open-ended. The schedule includes 4 days of on-the-job training and 1 day of classroom activity each week.

- o Riley: Our services are individualized and center around job placement. They are employer based. Preplacement services provide job-seeking skills training. Employers are involved in mock interviews and provide feedback. Postplacement services offer on-site training. We place workers in jobs and then we train, providing industry-integrated training and work adjustment counseling. One of our staff, an on-site trainer, learns the job, does a task analysis, and then works to integrate the individual into the setting. Our trainer works with the employer supervisor to train the individual and then phases out. The process involves extensive cooperation with the front-line supervisor in the work setting.

What strategies are you using to help your clients obtain jobs in the private sector?

- o Clark: We use the traditional approach of the industry advisory committee or craft advisory committee. Then we have a jobtrainer.
- o Black: The main strategy for getting jobs for our clients revolves around the training program. We provide up to 2 years of training in the area of job choice. When we think they are ready, we put them on the job evaluation to see how well they perform out of the school setting. Then our job development teachers are continuously searching for jobs. Students are placed in suitable jobs. We are also involved in a cooperative program with vocational rehabilitation, and our craft committees form a network across the business community to find jobs for our students.
- o Bennett: There is a real challenge in having your vocational training programs meet competitive standards. Many of our clients have great difficulty meeting those standards. Our people with psychiatric disabilities, in particular, come to us with a limited work history. We encourage them to be as realistic as possible with the businesses and to continue their therapy. Our approach involves case management. We encourage people to take care of themselves in terms of their health. With regard to strategy, we use the JSST involving both the group and one-to-one job development. We work on interview techniques, resume writing, and developing networks and individual contacts with employers.
- o Hoppe: The Wisconsin vocational-technical system's program development structure requires a private sector advisory committee. Fox Valley Technical Institute's MOA advisory committee includes representatives of the Institute; members of referral, community, and service agencies for handicapped and disabled populations; students; parents; and employers. Major financial support is received in the form of in-kind donations (equipment and services) from the retirement and nursing care facilities that are used for training. Other aspects of cooperation include networking with community agencies and area high schools. They assess, evaluate, and assist with placement and follow-up. Business community personnel supply feedback concerning employment trends, work skills needed, activities to upgrade skills, and integration of special needs

students into competitive employment. Training personnel provide continuous information on work habits and expectations.

[The next portion of the audioconference was inaudible.]

- o Szymczak: I'm the vocational adjustment counselor; it's my responsibility to follow up on the students in the transitional employment program and in the regular special education work-study program. One of the first steps in helping clients get jobs in the community is to meet with school staff, student, and parents during the senior year to develop a transition plan. I analyze the individual's strengths and weaknesses to identify possible areas of employment. Then I do a market analysis. After I have identified possible employers, I go out into the community to make job contacts. I learn about the employer's work sites and develop an individualized sales approach and point out how employing a handicapped or disabled person could solve some of the problems an employer is having, such as high turnover rate or low productivity. To get an employer interested, I discuss targeted job tax credits, on-the-job training funds available through the Illinois Department of Rehabilitation Services, or job coaches to help train individuals in the initial stages of the job.

- * Phoenix, AZ. Question: Can anyone discuss entrepreneurial training for the handicapped?
 - o Vagnoni: In Philadelphia at the training center we developed a program of contractual data processing. This seems to be growing as a small business option. Training is given by a member of our staff in working as a private consultant. The program has worked very well for people too severely disabled to leave the home or a supportive environment but who have the potential to work for themselves or as a consultant for someone else in data processing. We have a nun operating a word processing business out of a convent in a nearby suburb.

SESSION 9: Retraining and Adult Transitions: Revitalizing Our Workforce
through Collaboration

Tuesday, October 31, 1985

3:00 - 3:50 p.m. EST

Moderator

John Bishop, Associate Director
National Center for Research
in Vocational Education
Columbus, OH

Panelists

Don Tomlinson, Director
Gateway Vocational Technical
School
Batesville, AR

Allene Knedlik, Coordinator
Women in Transition Program
Coffeyville Community College
Coffeyville, KS 67337

Mary Ellis, Vice President
Council for Adult and
Experiential Learning
Columbia, MD

Rhonda Weaver, Director
Career Advancement Project
Arizona Business-Industry-
Education Council
Phoenix, AZ

Alan Moore
Northwestern Bell Career
Development and Retaining Project
Omaha, NE

HIGHLIGHTS

Tell us something more about your collaborative strategies involving business, schools, and any other institutions with which you work. How have you brought these groups together and gotten them committed?

- o Tomlinson: Most of the agencies involved are state agencies, and we have the common goal to work with people and meet their needs. When you do that, you also meet the needs of business and industry--on the local and statewide levels. All these agencies have their specialties, and their representatives visit our programs and make presentations. They refer people to our programs and sometimes hire individuals who have completed one of our programs.
- o Bishop: How do you handle placement, Don?
- o Tomlinson: Our community is rural, and we have many jobs that are not highly skilled. We have a lot of personal contact with these folks. They

have confidence in our programs and our recommendations. We place approximately 80 percent of our clients in local jobs.

- o Ellis: There is a tremendous amount of collaboration involved in our program. We started the project not knowing which colleges would be interested, as it would involve some staff retraining and changes in programs. Since that time we have heard from almost every college and university in the 8-region area. Most said that although they were not ready at the beginning, they would like to be involved later, and we have begun to work them into the training sessions. Training sessions are open to all the colleges and universities in the area surrounding the plant. We want people to be able to transfer their credits from one institution to another.
- o Knedlik: Our situation is similar to Don's in Arkansas. Our cooperative education efforts involve our adult basic education center, Coffeyville Community College, the Southeast Kansas Vocational Technical School, the local, regional, and state JTPA representatives, and the State Department of Human Resources. The communication lines are open in order to work out any problems. There is an advisory council for the JTPA program, and members act as advocates for our program as well as advisers, and they keep us informed about employment possibilities. Over 100 local businesses have been contacted through the chamber of commerce. Our placement rate is 85.6 percent. We tell businesses about the targeted tax credit that's available for hiring people who are JTPA eligible. JTPA will pay 50 percent of those people's salaries for the first 6 months. The unemployment rate in southeast Kansas is 7.1 percent, and we have 13.4 percent of our population at the poverty level. Thus, we are particularly pleased with our placement rate. All our participants are required to take our job search skills class. We approach it like a campaign. We also get calls from local businesses when they need people. Our placement is a cooperative effort among myself, the local job service center, the local JTPA representative, and the participants themselves.
- o Tomlinson: To obtain job placements for our students, we have personal contacts with employers, who call us almost daily. When we make a recommendation, we are always truthful, and that keeps them coming back. About 75 percent of the job placements are handled by our coordinator, and about 25 percent of our students get their own jobs.

Our career center job training lasts for only 3 days, and our skills training is provided on an individual basis, so we always have people completing a training program and ready to be hired.

- o Knedlik: Our program is longer term, from 5 to 10 months. We coordinate with employers if a participant gets hired for a full-time position before completing the training program. Our program is flexible, so a student can be transferred to a class at a different hour. Employers are cooperative; sometimes they hire someone part-time with the agreement that the position will be full-time when the person has completed the training.
- o Weaver: One of our advantages in Phoenix is that we have an incredibly supportive community college system. A member from the career planning department of each of the seven community colleges helped develop our

program. Their contacts in the community were extremely beneficial to us when we started the pilot program. We became visible quickly because of these contacts.

o Moore: Our project has a contractual arrangement with the 44 colleges that do the career counseling for the Bell employees in our 5 states. We have a regional college coordinator appointed by each institution, and I work with each individual on a regular basis. Other connecting tools include a WATS [Wide-Area Telecommunications Service] line, periodic inservice meetings during the start-up phase, and on-site visits. It's an ongoing, highly structured process that enables us to keep in touch. Also I maintain a constant working relationship with the leadership of the Communications Workers of America in our region and also with Bell management, identifying training areas and devising program that will meet the needs of the employees.

* Great Falls, MT. Question: How are the clients who are being served supporting themselves during their training period?

o Bishop: A related question, which can be answered by Mary with regard to the UAW program, is the time spent in study considered off-work, unpaid time, and how are tuition charges set for an in-plant course?

o Ellis: An in-plant course works just like an off-site course; the fee is established according to the regular charges of the college. The employee doesn't have to deal with that at all; it's handled through the college and university options program of the UAW-Ford Alliance. With regard to how they [the clients] support themselves, in our project they're all full-time employees of the UAW-Ford organization. A few courses are offered during the lunch break, but most are offered immediately after work, in the evening, and on the weekends. Colleges try to gear the scheduling to what most of the workers in the plant want. In the film we made, the workers talked about what it was like to work full-time and go to school. Some discussed how they gradually were able to manage a heavier load of courses. They also told how their children reacted. They all said it was rewarding, although difficult at first.

o Moore: The employees in our project take all the courses and career counseling on their own time--evenings, weekends, and lunchtime. They are all employed full-time. We have voucher relationships with over 100 colleges and universities. We issue a letter of credit to the employee. The letter is shown to the institution, the institution bills my office, and we draw money from Northwestern Bell and pay the institution within 15 days. The employee never pays a penny.

o Tomlinson: We have many variations. We have many folks coming to school here who are not working and who can get aid of some sort--a grant, a student loan, or a scholarship. Sometimes we've had as many as three members of a family going to school at one time. These adults want to better themselves. They will work an 8-hour shift and go to school 6 hours a day, or they'll work two 4-hour shifts and go to school in between. In addition, industry does help by allowing them time to go to school. Many companies will pay for tuition and books up front or will reimburse the employee after completion of the program.

- o Knedlik: JTPA pays for tuition and books. Seventy-five percent of our people are on some kind of assistance through the social and rehabilitative services. Those needing additional help apply for Pell Grants, scholarships, or student loans. The majority of the clients are unemployed and they rely on some type of government assistance.
- o Weaver: I wanted to mention that our program is available on a national basis. It's a 12-hour program. The employer would purchase the program and use it for the benefit of the employees.
- * Newfoundland, Canada. Question: We're faced with a problem in that our resort industries have been hurt by the recession and are not recovering. There is increased competition between the universities and vocational schools for the few dollars available. What suggestions can you give us for increasing cooperation between the vo-tech and other institutions?
 - o Moore: You voucher the dollars to the strongest programs.
 - o Ellis: One thing that might help is to get the industries to cooperate as to what they need and let it be known that institutions that will not cooperate for the benefit of the learner will not receive any tuition. Perhaps your local government or some leadership person can help. We had a lot of success by bringing in a strong individual at the first meeting to speak to the colleges and universities about the value of cooperation for the benefit of the learners. Once they have the idea of responsibility in addition to the desire for the dollar, they can come up with some pretty inventive things.
 - o Tomlinson: In Arkansas some of the colleges and the vocational-technical schools are actually sharing the same dollar. We have a cooperative agreement at Gateway with one of the state community colleges to offer an RN program and an electronics technology program. The college will give 24 hours of academic subjects, and we'll teach the vocational subjects. After 2 years, the student will get an associate degree.

BACKGROUND DESCRIPTIONS OF
MODERATORS AND PANELISTS

TUESDAY, OCTOBER 29--SESSION 1

SCHOOL STANDARDS AND BUSINESS EXPECTATIONS: ACHIEVING BOTH WITHOUT COMPROMISE

MODERATOR

Antonia Neubauer, Development Coordinator
Research for Better Schools, Inc.
Philadelphia, PA

Antonia Neubauer has been development coordinator for Research for Better Schools since 1982. She initiates contacts with business, industry, and other external agencies and represents RBS on Philadelphia's Urban Affairs Partnership and the Science Advisory Committee. She is currently coordinating the development of a training program for management and teachers in an industry-education collaborative serving at-risk students.

Research for Better Schools, Inc., (RBS) is a private, nonprofit, regional educational laboratory that helps educators in Delaware, Maryland, New Jersey, and Pennsylvania use the best available techniques and information to improve schools. It provides both short-term, direct assistance with immediate educational problems and longer-term training and staff development. RBS works with schools, school districts, and education agencies at the intermediate, state, and federal levels; professional associations; community organizations; and business and industry. Its activities include basic skills instruction, career and adult learning, special education, educational evaluation, urban education, educational technology, training and staff development, research, needs assessment, development of training materials, and program planning and implementation.

John F. Bradford, Director
Platte County Area Vocational-Technical School
Platte City, MO 64079

John Bradford has been director of Platte County Area Vocational-Technical School (in the Kansas City area) for 6 years. He believes the support of industry and business has been the key to the institution's success. Platte County Vo-Tech aims to educate the whole person and offers adult vocational classes, community education classes, and business and industry training programs.

Representatives from business and industry have helped design the school, its curriculum, and its equipment. Companies such as TWA, Farmland Industries, International Harvester, Ford, and local, smaller organizations have provided

input and, in some instances, shared facilities, equipment, instructional staff, and materials. The school offers training that should attract new companies considering locating in the area, according to industry spokesmen. It has the expertise and equipment needed to train adults and update their skills.

Louise Wasson, Career Education/PIPE Coordinator
Seattle Public Schools
Seattle, WA

In conjunction with her doctoral studies, Louise Wasson visited 30 programs that provide community-based learning for high school students. She has been a career guidance counselor, intern program coordinator, and developer of curriculum for community-based learning.

Private Initiatives in Public Education (PIPE) designs and carries out programs for high school students through the collaboration of businesses in the community.

Beth Packard, Project Director
Arizona Center for Vocational Education
Flagstaff, AZ

Beth Packard is the author of Arizona's Blueprints for Building Partnerships, a report on a study of vocational partnerships in Arizona. Researchers sent questionnaires to all high schools and community colleges and received reports of 60 partnerships. Questionnaires were then sent to the business or industry partners, eliciting responses from 22. Descriptions of 18 model partnerships are given in the report, representing urban and rural areas, high schools and community colleges, and different purposes and structures. The report provides direction for the establishment of future partnerships. It includes a discussion of literature relating to collaboration between the public and private sectors for educational programs.

The community colleges indicated that 52 percent of their partnerships provided training for industry. High schools reported that 40 percent of their partnerships contributed to program support and 30 percent were for vocational co-op or work experience. With regard to benefits students derived from partnerships, exposure to skills and knowledge was by far the most frequent response. Business and industry respondents indicated that having a source of interested, trained employees was their greatest benefit. The educational institutions listed community relations, donations of equipment or facilities, increased student interest, and expanded program offerings as benefits they derived from the partnerships. These respondents agreed that resource allocation and philosophical support by their administrators were necessary to the success of the partnerships.

Al Church, Director
Experience-based Career Education Program
Salt Lake City Schools
Salt Lake City, UT

Al Church, an active member of the National Society for Internships and Experiential Education, has been a consultant-trainer for experience-based career education (EBCE) programs in Utah, New York, and Illinois. With the Salt Lake District's program since 1975, he has also been on the board of the National EBCE Association and has taken part in national, regional, and local conferences.

EBCE at Highland High School, Salt Lake City, is available to all juniors and seniors, regardless of academic background. About 80 enroll each semester. Four learning coordinators are responsible for about 20 students each. Competent adult volunteers from all sectors of the community are enlisted as colleagues in the education process and share their daily activities and their knowledge with the students. Students spend about 40 percent of their time with their resource persons in the community and 60 percent with their learning coordinators. They complete two projects during the semester and are graded on skills according to established EBCE standards. Students apply their classroom theory to solve practical problems in a community setting, and they learn firsthand about careers. They have worked in interior design, architectural planning, landscape, newspapers, television, city commission offices, real estate, theater, courts, weather forecasting, psychiatric hospitals, surgery, the zoo, and the police department.

Rita G. Kaplan, Manager
Education Programs
Honeywell, Inc.
Minneapolis, MN

Rita Kaplan has served as a loaned executive to the Minneapolis superintendent of schools, working with him on the school district's partnership with private industry and business. As manager of Honeywell's education programs, she has designed and implemented the company's partnership with the Minneapolis public schools. She was chair of the Greater Minneapolis Chamber of Commerce Education Committee, and she received the Minneapolis YWCA Outstanding Leadership Award for Public/Private Partnership. In addition, she serves on the board of directors of Education Ventures, Inc., which was founded by seven companies to support excellence in the public schools.

The Summatech program, for which Honeywell contributed money, equipment, expertise, and volunteers, is a high school magnet curriculum offering 4 years of math and science and 2 years of computer science at North High School, Minneapolis. It has been recognized locally and nationally as a model for public-private sector cooperation.

TUESDAY, OCTOBER 29--SESSION 2
BECOMING INFORMED ABOUT BUSINESS AND THE ECONOMY: COLLABORATION PROVIDES THE
MISSING LINK FOR EDUCATORS AND STUDENTS

MODERATOR

John W. Robinson, Manager
Instructional Resources
Motorola Training & Education Center
Schaumburg, IL

John Robinson has been employed at Motorola in many management positions, with responsibilities in both the United States and foreign countries in the areas of engineering, manufacturing, and marketing. He has served on the U.S. Department of Commerce's Telecommunications Equipment Technical Advisory Committee and East-West Trade Committee. He has been a resource leader at the Motorola Executive Institute and is frequently a speaker at colleges and universities and professional conferences.

Anthony F. Suglia, Director
Affiliated Councils & Centers Division
Joint Council on Economic Education
New York, NY

As director of the Affiliated Councils and Centers Division of the Joint Council on Economic Education (JCEE) since 1977, Tony Suglia works to strengthen JCEE's national delivery network of 50 state councils and 265 university-based Centers for Economic Education. In addition, he is coordinator of the National Awards Program for the Teaching of Economics and is on the editorial committee of Pro-Education, a magazine that focuses on school-community partnerships.

The Joint Council on Economics Education (JCEE) is an independent, nonpartisan, nonprofit education organization incorporated in 1949 to encourage education in economics. Through its Affiliated Councils and Centers Network, JCEE reaches more than 100,000 teachers annually, providing teacher training and curriculum materials. The Development Economic Education Program (DEEP) is a curriculum for economic education at all levels. The JCEE receives contributions from over 450 corporations, foundations, and labor organizations. The state councils are financed by local companies, labor organizations, and individuals.

Richard A. Ungerer, President
National Institute for Work and Learning
Washington, DC

Rich Ungerer has been at the National Institute for Work and Learning since 1977. He has been involved in improving the linkages between institutions of work and education so that youth and adults will have better access to and between these institutions. He has directed a national demonstration project of 21 community education-work councils.

The National Institute for Work and Learning (NIWL) is a private, nonprofit corporation engaged in research, pilot programs, case studies, policy studies, development of information networks, and technical assistance for the purpose of improving the relationships between educational and work institutions and to bring the supply of and demand for critical skills into better balance. Since its creation in 1971, NIWL has emphasized collaboration among employers, educators, unions, service organizations, and government. NIWL carries out projects in youth development, worklife transitions, and critical skills, thereby developing products and services for employers, educators, unions, and governments. A few examples are as follows:

- o Research on employment in the fast food industry related to training, management, skills, and education and employment patterns
- o Development of support materials for apprentices, mentors, and coordinators in the Department of Defense Summer Science and Engineering Apprenticeship Program for high school students
- o Presentation of workshops on employment-based tuition assistance
- o Publication of handbooks and reports

Ann C. Baker, Associate Director for Business/Education Relations
Charleston Higher Education Consortium
Charleston, SC

Active in business/education collaboration since 1980, Ann Baker has been executive director of the Trident Work Education Council and is co-author of "Partnership in Business," a chapter in a book to be published this year by Macmillan. She presented a paper entitled "Politics of Collaboration" and was on the faculty for the Building Effective Joint Ventures among Business, Labor, and Higher Education Institute which was sponsored by the Council for the Advancement of Experimental Learning at the Aetna Institute in May 1985. She was chairperson of the November 1984 National Council for Interinstitutional Leadership Conference and presented a paper entitled "Business/Higher Education Connections: How Consortia Can Help." She is a member of the Trident Chamber of Commerce and of the executive committee of the Leadership South Carolina Board of Regents.

The Charleston Higher Education Consortium (CHEC) was established in 1969 by the state legislature under the auspices of the South Carolina Commission on Higher Education for the purpose of promoting cooperation among the post-secondary institutions in the tricounty area. The six members are Baptist College at Charleston, The Citadel, The College of Charleston, Medical University of South Carolina, Trident Community College, and the Marine Resources Division of the South Carolina Wildlife and Marine Resources Department.

Among the consortium's goals is strengthening ties with the secondary and middle schools of the area. There have been several collaborations between CHEC and the schools, including a graduate-level, summer work-education program for school counselors and teachers, consisting of 4 days of work per week in an entry-level job in a local business or industry and seven Monday classes. The program helps educators link work experience with education. Its funding has come from business and industry. All of the CHEC-school programs make CHEC faculty and resources available to precollege faculty, students, and schools through special activities.

CHEC compiles a directory of part-time instructors and distributes it to the consortium institutions and the Charleston County School District. The directory lists people in the private sector who have a suitable background and an interest in teaching--especially in areas such as computer science, math, sciences, and engineering.

Cathy Ashmore, Program Director
Entrepreneurship Education Program
National Center for Research in Vocational Education
Columbus, OH

Dr. Ashmore holds degrees in business administration and education. Her business experience includes marketing planning, sales, market research, advertising, and small business management. In the field of vocational education, she has been a teacher, a curriculum specialist with the state department of education, and a staff member of the national organization.

The Entrepreneurship Education Program at the National Center conducts projects to further the infusion of entrepreneurship education into all vocational programs at the high school, 2-year college, and adult education levels.

TUESDAY, OCTOBER 29--SESSION 3
THE DO'S AND DON'TS OF IMPLEMENTING COLLABORATIVE PROGRAMS

MODERATOR

Donald M. Clark, President
National Association for Industry-Education Cooperation
Buffalo, NY

Dr. Clark's background includes corporate management, public school teaching and administration, the military, and radio and television. He has served on national advisory panels and is internationally known for his work in promoting cooperation between industry and education. The film he produced in 1978 for the U.S. Office of Education on the role of industry-education councils in furthering career education is used throughout the nation. He has served as director of the Center for Economic Education at the State University College at Buffalo and executive director of New York State's first Industry-Education Council.

The National Association for Industry-Education Cooperation (NAIEC) is the national clearinghouse for information and assistance on industry involvement in education. Its board of directors includes executives from the National Association of Manufacturers, National Federation of Independent Business, Education Commission of the States, the Advertising Council, AFL-CIO, American Association of School Administrators, U.S. Department of Commerce, college and university presidents, and corporate leaders. NAIEC focuses on improving joint efforts toward both the improvement of schools and economic development.

NAIEC is working with 24 states in establishing industry-education coordination to link academic and vocational education staff and public and private organizations. The Association received a Presidential Citation for Private Sector Initiatives in 1985 in recognition of its efforts in utilizing industry's volunteer resources.

Tom Nelson, Executive Director
Business-Youth Exchange
Portland, OR

Tom Nelson has worked on the private sector side of public-private collaborative efforts for over 10 years and has been executive director of the Business-Youth Exchange for 2 1/2 years. He is an appointed member of the Governor's Youth Coordinating Committee, which disburses special funds to foster the development of innovative youth employment programs throughout Oregon.

The Business-Youth Exchange was created and funded by local companies to increase business involvement in youth employment and education activities. The executive director organizes business resources to support model partnerships between business and schools. Examples include Grant High School's Partnership Project, the

Financial Services Technologies Academy, and the program's computerized Community Resources Bank.

Andrea Hunter Baker, Youth Development Specialist
Education and Work Program
Northwest Regional Educational Laboratory
Portland, OR

In the 1970s, Andrea Hunter Baker was a staff member at Community Experiences for Career Education in Tigard, Oregon, and later was a trainer in Experience-based Career Education, an alternative schools model involving a close partnership with local employers. This summer she represented the Philadelphia-based Public/Private Ventures in the research activities of the Summer Training and Employment (STEP), which was a collaborative effort of Portland Public Schools and the Portland Private Industry Council. She is currently a specialist in youth career development in the Education and Work Program at the Northwest Regional Educational Laboratory.

Tom Boldrey, Director
Education for Employment
Will County Regional School Office
Joliet, IL

Tom Boldrey has taught at University of Northern Colorado, Northern Illinois University, and Governors State University (University Park, IL). For the past 15 years he has served the Joliet community as an administrator and a classroom teacher. He has initiated and administered collaborative efforts between the public and private sectors, ranging from a preschool to a career education program for 8th graders to experience-based career education. He has developed Computer Industry Technology (CIT), an extended campus model, in which high school students take a course within the facilities of a local industrial corporation.

CIT is a collaborative effort of KineticSystems Corporation (a microcomputer manufacturing company) and Lockport Township High School, sponsored by the Illinois State Board of Education, Department of Adult Vocational and Technical Education, Research and Development Section. The year-long CIT course is divided into three cycles: orientation, core skills, and specialization. Twenty high school students attend a 2-hour class at KineticSystems each day and receive two credits. They are accompanied by a high school teacher, who works with employees of KineticSystems to set up group and individual learning experiences using the firm's equipment. Good work habits are reinforced as students practice the skills demonstrated by proficient employees. Students learn academic concepts while they learn the importance of human relations, exacting standards, and accuracy. The CIT course's blend of academic and employment-related competencies is more rigorous than conventional cooperative education. The goal is to equip the students with the core knowledge and skills for several jobs within the computer industry.

CIT is administered by the Will County Education Service Region. Northern Illinois University provided a series of seminars for KineticSystems employees to strengthen their multiple roles as teachers and managers. Twenty-five high school teachers of math, science, and vocational education received stipends last year to attend seminars conducted by KineticSystems, make an intensive on-site study at the company, complete a group project (model home security system), and develop or modify curriculum in their respective courses.

William H. Adams, Superintendent of Schools
Salem County Vocational Technical Schools
Woodstown, NJ

William Adams, an educator for 20 years, has been superintendent for the Salem County Vocational Technical Schools for 13 years. He has been chairperson of the State Advisory Council for the Handicapped and the New Jersey Balance of State Employment and Training Council and has served on the Salem County Private Industry Council, the New Jersey Council for Vocational Education, and the Commissioner's Council for the Gifted and Talented. Several of Dr. Adams' programs have received national recognition, including occupational math, Summer Youth Employment Training Initiative, Project A.D.V.A.N.C.E.--an alternative program for emotionally handicapped students, and the construction of a six-store minimall by unemployed youth. In 1980, the National School Boards Association named him one of North America's top 100 administrators. He is co-founder and vice-chairperson of the South Jersey Employer Education Consortium.

The South Jersey Employer Education Consortium had its informal beginnings in the spring of 1984, when leaders from business, industry, and the education community met to discuss concerns regarding the impact of changing technology on businesses, the lack of qualified applicants for job openings, the "barrage of requests" employers were receiving to serve on public sector advisory boards, and the lack of linkages between education and business. The organization grew to include the seven counties in the area, and public funding was sought and obtained--though not without difficulty.

An executive committee and five subcommittees--economic development, regional communications, finance, training development, and tests and measurements--were established. The chairperson of each subcommittee must be a representative of private sector industry, and each vice-chairperson must be from the education sector. The chairpersons and vice-chairpersons are also members of the executive committee. Educational institutions that are members of the consortium include colleges, vocational technical schools, and public school systems. Employers of 75 or more persons are eligible for membership. Glassboro State College provides housing at no cost to the consortium and has guided the project through its management institute. The State Job Training Coordinating Council has also provided support.

Some of the agencies providing training services expressed concern that the consortium would duplicate training activities. The consortium has made it clear that it will not provide training, but rather will act as a clearinghouse for training providers.

WEDNESDAY, OCTOBER 30 - SESSION 4

COOPERATIVE AND EXPERIENTIAL LEARNING: IS IT WORTH THE TIME AWAY FROM THE CLASSROOM?

MODERATOR

Thomas R. Owens, Senior Research Associate
Northwest Regional Educational Laboratory
Portland, OR

Tom Owens has been a senior research associate with Northwest Regional Educational Laboratory (NWREL) and its Education and Work Program since 1973. His responsibilities have included evaluations of more than 35 projects, a national study of the impact of worksite learning, and a regional study of dislocated workers. Dr. Owens is also national chairman of a special interest group in the American Educational Research Association concerned with experiential learning.

Judy Breck, Coordinator
MENTOR
New York, NY

Judy Breck, who is secretary to MENTOR founder Thomas W. Evans (a senior partner in a Wall Street law firm) has served as coordinator of MENTOR since its inception in 1982. She has taught at the high school level, and she serves as Christian education chairman at Fifth Avenue Presbyterian Church.

MENTOR pairs New York City junior and senior high schools with law firms and is similar to a program that has been successful in the field of medicine. The focus is on first-hand experiences for the students, who have an opportunity to observe how lawyers and those in related legal vocations function in the daily operation of a law firm, thereby allowing students to gain a more realistic view of the legal profession. The goals of the program are to accomplish the following:

- o Guide students to recognize the impact of law on their daily lives
- o Increase awareness of citizens' rights and responsibilities
- o Enhance knowledge and appreciation of the United States legal system
- o Provide information on careers in and related to the legal profession

MENTOR began in 1983 with a pilot program involving five law firms and high schools. In 1984, there were 22 schools and law firms paired. Included as law firms were the New York City Corporation Counsel's office, the lawyers of the New York Civil Liberties Union and the American Civil Liberties Union, J.C.

Penney Company's legal department, and lawyers of the District Council 37 of the American Federation of State, County, and Municipal Employees. This year, 24 schools and law firms were paired, and the program is expanding to other cities and states. MENTOR includes an orientation visit by lawyers to the school to speak with the class; a tour of the firm, which includes a look at the many vocations involved in the operation of a law firm; a visit to a Federal court, with an emphasis on civil litigation; and a visit to a state court, with an emphasis on criminal law. Most groups add activities to these components and allow for informal time together, such as a sandwich lunch at the law firm.

Although MENTOR does not include internships, it has nevertheless created employment opportunities by acquainting law firms with interested students and introducing hundreds of students to the work environment and the many kinds of jobs that exist at law firms. In addition, students have been helped to realize the complexity of the legal system, and many believe they have become more law-abiding as a result of the course.

JoAnn Dupperault, Coordinator
Executive High School Internship Program
Hillsborough County Public Schools
Tampa, FL

JoAnn Dupperault's undergraduate majors were social studies and psychology, and her master's degree is in education of the gifted. Since the executive high school internship program (EHIP) began in 1972, she has been its coordinator.

EHIP enables high school seniors to learn from executives in business, government, social services, cultural institutions, and other organizations. Interns are selected on the basis of their abilities, maturity, initiative, and motivation. They take a semester sabbatical from regular studies and function as full-time assistants-in-training to their sponsors 4 days a week and meet in seminars on Fridays. Interns keep analytical journals of their activities and receive full academic credit.

The interns' weekly seminars on management and administration include study of cases on decision making, conferences with high school officials, field visits to program operations, and organization and presentation of their own seminars. Seminar topics may include budget, personnel policy, group dynamics, and institutional decision making. Over 700 students have participated in the internship program.

Garry Wagner, Program Director
Community Experiences for Career Education (CE)₂
Tigard, OR

Garry Wagner has been an elementary and junior high school teacher and has been involved in the (CE)₂ Program (Community Experiences for Career Education) for

7 years. For 6 of these, he served as an employer relations specialist and learning manager.

Community Experiences for Career Education, (CE)₂, began in 1972. The Tigard School District has assumed the funding for the program, and it now includes 60 junior and senior high school students and 4 staff members. Students have individualized study programs and work at the (CE)₂ learning center at Tigard High School and at job sites in the community. The job sites are recruited according to the students' career interests. The individualized study programs consist of learning projects, journals, survival skills, and job site requirements. When students have completed their work, they receive standard credits toward their high school diploma.

The major objectives of (CE)₂ are to accomplish the following:

- o Provide education through on-site activities
- o Provide basic skill development and enrichment at all ability levels
- o Foster positive work habits and attitudes
- o Foster the desire to learn through increasing the number and variety of opportunities, methods, and sources
- o Involve the community in the education process
- o Involve students in designing their individual programs of education

Ron Nelson, EBCE Director
Goodrich High School
Fond du Lac, WI

Ron Nelson has directed the Experienced-based Career Education (EBCE) program since its inception in 1975. He has been involved in all phases, from selling the idea to the community to implementing it. He is also active in other partnerships between the community and educational institutions in the area.

The Fond du Lac EBCE program has received national validation from the Joint Dissemination Review Panel of the U.S. Office of Education. The evaluation team judged the program had met its objectives, proved to be cost effective, and made a significant educational difference to participating students. EBCE merges academic, vocational, and general education into a learning program that makes use of community resources and people. Students in EBCE exchange ideas with and learn from adults in the everyday world--technicians, social workers, trial attorneys, auto mechanics, doctors, police, printers, and union stewards. High schoolers explore the adult working world while earning high school credit. EBCE aims to provide exposure to and experience in many different work situations to help students clarify their future career directions. Four days a week are spent on the job with the resource person. Students rotate among sites in order to learn about many career possibilities.

Carl R. Johnson, Director of Cooperative Education & Placement
Utah Technical College at Provo/Orem
Provo, UT

Carl Johnson has been director of cooperative education at Utah Technical College at Provo/Orem for 9 years. Currently, he is the Rocky Mountain regional representative to the Cooperative Education Association. He is a former president of the Western Association of Cooperative and Work Experience Educators and the Utah Association of Cooperative Educators and Employers.

Utah Technical College offers cooperative education work experience in 25 departments, with 400 students and 400 employers participating each year. Sixty percent of the students become permanent employees after completing the cooperative education experience. They earn money while participating in the program.

A class in career exploration provides students with testing, classroom activities, and on-the-job observation visits designed to help them choose careers. In the actual cooperative work experience, students set their own learning objectives through consultations with a teacher-coordinator and the employer. The instructor helps the student find a job and a cooperating employer. Students who are already employed may enroll in the program if the employer participates.

Laurie Moon Chauvin, Coordinator
Yankee Intern Program
National Trust for Historic Preservation
Boston, MA

Laurie Moon Chauvin has been coordinator of the Yankee Intern Program for 2 years and has been with the National Trust's Northeast regional office since November 1982. At the American Academy in Rome she studied historic preservation, and she holds a master's degree in landscape architecture. She has worked in the areas of preservation, design, documentation, and community outreach in Louisiana and in Boston.

Out of their mutual concern for the preservation of New England's special environment and the education and training of its young people, Yankee Publishing, Inc., and the National Trust for Historic Preservation formed a partnership in 1983 to establish an intern program in the six New England states. College students with an interest in historic and environmental preservation may gain direct experience working with preservation and public agencies in the region. The program has three 12-week, full-time sessions, corresponding to college calendars. Students receive a stipend of \$2,500, of which \$1,500 is provided by the Yankee Intern Program and \$1,000 by the sponsoring organization.

Any nonprofit organization or public agency may sponsor an intern project. The sponsoring organization provides daily supervision, but all administrative aspects, including payroll, records, and orientation are handled by the National Trust. Yankee magazine subscribers donate 25 cents toward the program on renewal of their subscriptions, and Yankee Publishing provides support services and direct grants.

WEDNESDAY, OCTOBER 30--SESSION 5
PREPARING FOR THE CHANGING SKILL DEMANDS OF THE WORKPLACE: CLOSING THE GAP
THROUGH COLLABORATION

MODERATOR

Linda S. Gottfredson
Center for Social Organization of Schools
Johns Hopkins University
Baltimore, MD

A researcher at the Center for Social Organization of Schools at Johns Hopkins since 1976, Linda Gottfredson is also affiliated with the Department of Counseling and Personnel Services at the University of Maryland in College Park. Many of her research projects have examined the changing skill demands of jobs and the implications for vocational counseling.

The goal of the Center for Social Organization of Schools is to produce useful knowledge on how changes in the social organization of schools influence a broad range of important student outcomes. Its work is organized into three research programs: school organization, education and work, and delinquency and school environments. The education and work program's objective is to conduct research that will lead to a better understanding of the role of schools in meeting the changing skill needs of the economy, in preparing students for successful careers, and in linking graduates with appropriate employment.

Studies are intended to provide (a) descriptions of skills required by different jobs, (b) analyses of the sources for training, (c) investigations of the processes through which students choose occupations, and (d) examinations of how different schools provide access to a variety of job entry and promotion possibilities. The knowledge gained will contribute to a better understanding of how to structure and coordinate education systems and school programs with other training to emphasize what each can do best and how each can provide fair access to educational and occupational opportunities.

Monica M. Manning, Executive Director
Minnesota Job Skills Partnership
St. Paul, MN

Monica Manning's doctorate from the University of Minnesota is in educational administration, and she holds a master's degree in public administration from Harvard. She has been awarded a public policy fellowship from the Institute for Educational Leadership and a Bush Leadership Fellowship.

In response to rapidly changing skill needs, state legislation created the Minnesota Job Skills Partnership Board in 1983. The partnership's goals are to

provide appropriately skilled labor, enhance the ability of schools to respond to business needs, and provide displaced workers with access to training. The Partnership Board awards grants, mostly in the range of \$10,000 to \$100,000, to educational and nonprofit institutions for customized training programs for Minnesota businesses. The potential employers match the partnership funds in cash or in kind. Programs have specific purposes designed to meet identified needs, and potential employers are involved in designing the programs.

Some examples of grants are as follows:

- o Hutchinson Area Vocational Technical Institute received a \$101,000 grant to train 275 persons for Hutchinson Technology, Inc., in the precision assembly of mechanical components and in active and passive electronic assembly. The firm was able to double its work force in 12 months and meet customer demand.
- o University of Minnesota-at Crookston was awarded \$80,000 to train 85 fiberglass fabrication technicians at Danish Commercial Energy Research Corporation, a new windblade manufacturing plant.
- o Rochester Community College and Rochester Area Vocational Technical Institute received \$40,000 to train 30 workers to make Chinese soy sauce for Great Wall Foodstuffs, Inc. Funds will be used for bilingual instructors, technical trainers, media instructors, and equipment.
- o Fergus Falls School District obtained \$33,205 to develop 80 hours of individualized, group, and on-the-job training for Hylden Industries, a garment manufacturer.

The Minnesota Job Skills Partnership Board's grants enable companies to receive timely training and thus respond quickly to market opportunities; moreover, in the long term, the grants enhance relationships between business and education. The Partnership encourages educational institutions to seek out businesses and discuss their training needs with them rather than wait for businesses to ask for help in a time of crisis.

Paul Erickson, Principal
Lynda Darling, Reading Instructor
Colleen P. Tranch, Health Occupations Instructor
Vocational Village High School
Portland, OR

This is Paul Erickson's fourth year as principal at Vocational Village. His prior experience in programs for disadvantaged youth included 5 years as director of Portland's Job Corps Center. He has served on the executive board of Citizens for Children, a statewide youth advocacy organization.

Lynda Darling has been a leading instructor at Vocational Village High School since 1972. She has a master's degree in extreme learning problems and has rewritten vocational curriculum to fit the needs of low-level readers. She has

taught at Oregon State University and has conducted workshops and, with co-worker Mary Lou Gidley, has developed a reading program and written a book about it.

Colleen Tranch has been a vocational instructor in health occupations at Vocational Village High School since 1975. She has written a curriculum for paramedical courses and has established a cooperative clinical practice site for students. Before becoming an instructor, she had 12 years of hospital service as a registered nurse.

Vocational Village High School is an alternative public high school whose program is designed to meet the needs of handicapped and disadvantaged students, aged 16 to 21, who have withdrawn from local comprehensive high schools. The school has been functioning for 17 years and offers a self-paced program with an emphasis on rewarding accomplishment. The enrollment is between 160 and 200, and the student-teacher ratio is 10 to 1. The vocational education program reaches students who may have had problems with grades, attendance, behavior, drug abuse, or emotional disturbances. These dropout-prone youth develop life skills and work habits for service-oriented jobs in a supportive family atmosphere.

Every student has a counseling team consisting of a male and a female teacher, representing both vocational and academic subjects. The attention individual students receive from these advisers is one of the school's strengths. There are nine fields of vocational study to choose from, and much of the work is hands-on. In addition, academic studies are required, with high standards for graduation. The reading program specially developed by Lynda Darling and Mary Lou Gidley emphasizes flexibility for students whose attendance is irregular, materials for all reading levels, and limited paperwork. The program can be used for students at any reading level and is individually paced, competency based, and motivational. Use of oral reading, interesting materials, positive reinforcement galore, immediate feedback, a free reading day weekly, expectations of success, and a sense of humor has produced remarkable results for the Vocational Village students.

Lynette S. Unger, Associate Professor
Miami University
Oxford, OH

Lynette Unger is an associate professor in the Department of Marketing at Miami University, Oxford, Ohio. She teaches advertising and has published articles in academic journals. She has been involved in Laws, Hall and Associates for 4 years.

Laws, Hall and Associates is a student-run advertising organization that services one paying client a semester. About 25 senior students from each of 3 departments--art, marketing, and mass communications--are divided into 3 competing teams that function as miniagencies. Each team produces a full-fledged campaign, including market analysis, strategy, budget, media scheduling plans, fully produced television and radio commercials, and artwork and layouts for

print media advertising. The client decides which team has produced the best campaign. Clients have included many nationally recognized firms.

Two faculty members from each of the three disciplines serve as directors of the course. The class has no tests or formal lectures, and grades are given by the instructor based on teammates' evaluations.

Sue Bradley, Curriculum Specialist
Scottsdale Vocational Technical Center
Scottsdale, AZ

Sue Bradley has served as inservice coordinator for vocational home economics at Arizona State University and has consulted with school districts regarding program and curriculum development. As curriculum specialist for the Scottsdale District's vocation technical programs, she is involved with Competency-Based Curriculum Development: The Team Approach for Change.

Geraldine Pearson
The Paul D. Lintner Center for Advanced Education
Portland Community College
Oregon City, OR

Gerry Pearson has helped create the cooperative management design of an educational effort involving 12 public and private colleges and universities. Currently she is engaged in marketing the member schools' training programs to business and industry.

Universities and colleges from the Oregon state system of higher education, Oregon's private colleges and universities, the high-tech business community, and Portland Community College have collaborated to meet the needs of Oregon's growing high-technology community. The Paul D. Lintner Center for Advanced Education, housed at the Rock Creek campus of Portland Community College, offers courses in electrical and computer engineering, computer science, business management, and engineering technology.

Existing programs from Oregon's state universities and faculty from public and private institutions are incorporated into the program, and scientists and engineers are included as adjunct faculty. The goal is to create a flexible set of graduate-level and specialized technological programs to respond to existing and future needs of high-technology industry in the state. The Center's objective is to offer specific educational programs aimed at the scientific and business community rather than a comprehensive program.

Lawrence S. Taylor, Program Specialist
Industry Services Training Section
Division of Vocational Services
Florida Department of Education
Tallahassee, FL

Lawrence Taylor has been with the Industry Services Training Section since 1979. He works with a diverse range of businesses and industries as well as with school districts, community colleges, and state universities to set up training programs.

The Industry Services Training Program (ISTP) emphasizes the following benefits that Florida offers to new and established businesses and industries:

- o The Cooperative Agency Placement System which lists the names and specialties of vocational students and retired military personnel
- o Vocational education student organizations that encourage refinement of skills
- o Competency-based skills training in 31 vocational-technical centers, 28 community colleges, and 62 departments of comprehensive high schools
- o A state university system with research and technical services and advanced degree programs

ISTP offers services to companies at no cost. Their specialists analyze the manufacturing processes, develop job descriptions, and establish time frames. From that information, they design a competency-based curriculum. Local vocational schools or community colleges provide facilities, or other space is leased and renovated. Mobile training units take specialized equipment to the sites. ISTP hires qualified instructors or pays company personnel to do the teaching and provides recruitment, promotion, evaluation of trainee applicants, monitoring, and on-the-job training.

WEDNESDAY, OCTOBER 30--SESSION 6
TECHNOLOGICAL SKILLS: HOW SCHOOLS AND BUSINESSES CAN MEET THE CHALLENGE
TOGETHER

MODERATOR

Russell W. Rumberger, Senior Research Associate
Institute for Research on Educational Finance & Governance
Stanford University
Stanford, CA

Russell Rumberger has been at the Institute for Research on Educational Finance and Governance (IFG) since 1981. He is an economist with special interests in technology, education, and labor markets. With Henry Levin, he is directing a research project on the impact of new technologies on work and the implication for education.

Charles N. Sutton, Assistant Regional Superintendent
Bonnie Buraglio, Coordinator of Public Private Partnership Program
Champaign/Ford Counties Regional Office of Education
Rantoul, IL

Charles Sutton has been assistant regional superintendent of schools in Champaign and Ford Counties for the past 8 years. One of his responsibilities is the development and administration of vocational training programs. He is active on the local Private Industry Council and, in cooperation with the chamber of commerce, has set up training programs.

An advisory board representing 190 local businesses helped establish the Computer-Based Training Program to provide microcomputer training needed for entry-level positions. Many local employees took advantage of the courses in order to upgrade their computer skills, and some JTPA-eligible students also went through the training programs. Monitoring, review of evaluations from all participants, and input from the advisory board led to improvements in the program.

Since September 1984, Bonnie Buraglio, a computer programmer, has been coordinator of special projects for Champaign/Ford Counties Regional Office of Education. With an advisory board of local employers, she was involved in developing the Computer-Based Training Program for employees and students whose computer skills need upgrading. She also works with the teachers and businesses in the Public Private Partnership Program.

Private sector employers who participate in the Public Private Partnership Program offer training-observation sessions to local vocational education teachers and guidance counselors. The teacher retraining project involved 17 businesses and 26 teachers in its second year and was concentrated in computerized areas. The University of Illinois made graduate credit available.

Chris W. Strother, Principal
Caddo Career Center
Shreveport, LA

Chris Strother is principal of Caddo Career Center, which serves 10 high schools and offers instruction in 20 skill areas to juniors and seniors. She was Louisiana Teacher of the Year in 1981.

Under the Shreveport Chamber of Commerce Adopt-a-School program, First National Bank and a General Motors manufacturing plant adopted Caddo Career Center.

Julie Graber, Public Affairs Director
CompuServe, Inc.
Columbus, OH

Julie Graber is CompuServe's primary liaison with the community. The company provides information and communication services to more than 164,000 personal computer users and to major corporations and government agencies. CompuServe's executive and consumer information services combined constitute the largest electronic general information base available in the United States.

CompuServe's Adopt-a-School program assists an inner city and a suburban high school develop their computer curriculum and improve their students' computer literacy. Both schools have free access to CompuServe's consumer information service, and the company has helped the suburban school develop its computer lab. A database to keep track of students' absences has been implemented at the city school. A system to enable students from both schools to work on joint projects is planned.

There has been a long-term relationship with the suburban school, partly because many of CompuServe's employees have children who attend the school. The company has sponsored its computer club. The inner-city school's computer curriculum received assistance, and the firm has made a number of presentations there.

Kenneth E. McCourt, Product Services Training Director
John J. Choulochas, National College Coordinator
General Motors Corporation
Warren, MI

Kenneth McCourt has been with General Motors Corporation since receiving his bachelor's degree in automotive technology in 1967. He has held positions as service manager, manager of technical training development, and administrative assistant to general sales manager.

John Choulochas has been national college coordinator for General Motors' Product Service Training since June 1981. In this capacity, he is responsible for the development and administration of the General Motors' Automotive Service Educational Program in over 25 colleges. In addition, he supervises GM's contractual arrangements with over 50 other postsecondary institutions for faculty and facilities. Choulochas has been with GM since 1965 and has managed GM training centers in Omaha, Boston, and Detroit.

Joel Kaplan, Director
Educational Programs
Stanford Mid-Peninsula Urban Coalition
Stanford University
Stanford, CA 94305

Joel Kaplan was director of a research program in developmental psychology with SRI International, Menlo Park, California, for 16 years before coming director of educational programs at the Stanford Mid-Peninsula Urban Coalition in July 1984.

The Stanford Mid-Peninsula Urban Coalition brought together the Sequoia Union High School District and local private companies in the 1981-82 school year to improve the educational and employment opportunities of disadvantaged and minority youth. The Peninsula Academies program operates within an electronics academy and a computer academy. It offers a selected group of students a core academic program; electronics or computer technology laboratories; guidance in career planning and job search; and contact with industry through field trips, invited speakers, and individual mentors.

The program is designed to address the following three problems:

- o High dropout rates and low levels of basic skills among minority and disadvantaged youth
- o High unemployment among these youths
- o Shortage of qualified labor to fill entry-level positions in local high-technology industries

The Peninsula Academies' program offers small classes and individualized attention. Summer job opportunities are made available to students who have completed their 11th-grade requirements, and 12th graders are placed in part-time jobs during their final semesters. They are assisted in finding permanent jobs upon graduation.

THURSDAY, OCTOBER 31--SESSION 7
COLLABORATION IN JOB SEARCH, GUIDANCE, AND PLACEMENT: "WIN-WIN" STRATEGIES FOR
STUDENTS AND EMPLOYERS

MODERATOR

Kevin Hollenbeck, Senior Research Specialist
National Center for Research in Vocational Education
Columbus, OH

Kevin Hollenbeck is a labor market economist. He has conducted numerous studies on employers' hiring practices. He is currently the principal investigator for the research program entitled The Influence of Secondary Schools on the Adaptability of Youth to the Workplace.

Darrell Tucker, Project Director
Financial Services Academy
Portland Public Schools
Portland, OR

Darrell Tucker has taught mathematics in Roswell, New Mexico, and Portland, Oregon. In Portland, he has been deeply involved in career education and has been the inservice instructor in computer literacy for classroom teachers and the coordinator of a program for talented and gifted pupils. He is a member of the Oregon Vocational Association, American Vocational Association, Phi Delta Kappa, Oregon Council of Career and Vocational Administrators, and Work Experience Coordinators of Oregon. He has been project director for the Financial Services Academy for its 2 years of existence. His duties include budget management, program planning, and serving on the steering committee.

The Financial Services Technologies Academy offers a 3-year training program to students at Jefferson High School in Portland, combining basic academic studies and practical training related to financial services, with the following goals:

- o To provide information, skills, and education that will motivate students to obtain useful job skills and complete high school
- o To deliver training that will lead to real jobs upon graduation
- o To encourage a partnership between the private sector and the educational community
- o To develop a well-trained, stable entry-level work force for local financial services companies

The program is a cooperative effort among the public schools, which provide teachers, classrooms, and some of the equipment and support services; the Urban League, which provides a director and a counselor; and the Business/Youth Exchange, which is an arm of the Chamber of Commerce, which promotes and coordinates involvement by companies in the financial services field.

Academy students take regular high school classes in addition to their special classes in the program, and they graduate with a diploma and a certificate of proficiency in financial services technology. Career motivation is an important feature of the Academy, and after their second year, students are assisted in finding summer jobs. During their third year, students are placed in parttime work positions.

Carol M. Rausch, Program Director
Career Planning and Placement Project
For Dislocated Workers
Minneapolis Community College
1501 Hennepin Ave.
Minneapolis, MN 55403

Carol Rausch was a career counselor and a project coordinator with the dislocated workers program before becoming its director. She has 11 years of experience in career counseling and job placement, having served with the job service, programming funded under the Comprehensive Employment and Training Act (CETA), and vocational rehabilitation divisions of the Department of Economic Security. She is a member of the Board of Directors of the Minnesota Career Development Association.

Minneapolis Community College began its Dislocated Workers Program in the summer of 1983, bringing together community organizations and funding sources to provide career-planning services to persons who have lost their jobs because of layoffs or plant closings and who don't expect to be rehired in the same kind of work. The following services are offered: career planning workshops, group support, individual counseling with regard to education and retraining, a career resource center, computerized career counseling services, basic skills instruction, assessment and individual counseling, job clubs, and job placement.

Funding sources include labor unions, private businesses, and the Federal Job Training Partnership Act (JTPA). There has been cooperation with Minneapolis Technical Institute, Minneapolis Employment and Training program, the State of Minnesota, International Union of Electrical Workers, United Electrical Workers, United Auto Workers, Communications Workers of America, 20 companies, Helping Industry Resolve Employment Disabilities (H.I.R.E.D.), and many education and training programs.

Michael P. Rosow, Director
Educational and Training Division
Work in America Institute, Inc.
Scarsdale, NY

Dr. Rosow's graduate degrees from Hofstra University are in applied research psychology. He has been project director for Daniel Yankelovich, Inc., and senior study director for Booz-Allen and Hamilton, National Analyst Division. He is the author of articles concerning quality of working life and productivity and co-editor of The Innovative Organization and Industrial Behavior Modification: A Management Handbook.

Work in America Institute, a work research organization, was founded in 1975. Dr. Rosow, executive vice-president, became director of the Institute's education and training division in 1980. Among the division's projects is the Philadelphia Job Search program, which provides high school juniors and seniors with the skills needed to acquire a job. In 1984-85, more than 1,000 students took Job Search as a fully accredited major elective course.

Begun in 1983 out of concern about the high rate of unemployment among young people, Job Search represents a collaboration of the following parties:

- o Pew Memorial Trust--which made a 5-year grant to Work in America Institute for teacher training, technical assistance, and equipment of classrooms
- o Philadelphia School District--which provides teachers, classroom spaces, and administrative support
- o Work in America Institute--which has provided the curriculum, training, technical assistance, and review
- o Philadelphia Federation of Teachers--which has developed the Job Bulletin to identify and select teachers for the course
- o Philadelphia's business community--which has provided sample applications and job descriptions, conducts career talks and practice interviews, and advises. Honeywell Corporation has equipped classrooms with computer/word processors.

Objectives of Job Search include helping students acquire proficiency at preparing resumes and applications, find appropriate job opportunities, arrange for interviews, and understand the influence of attitude and personal style on prospective employers. Longer-range goals are improved language and vocabulary skills and enhanced self-esteem. The office of Philadelphia Job Search is at 734 Schuykill Avenue, Philadelphia, PA 19146.

Nancy E. Poppe, Department Head
Training & Development
Dislocated Worker Program
Lane Community College
Eugene, OR

Nan Poppe has been with Lane Community College's Dislocated Worker Program for 2 years, working as a counselor and team leader before becoming head of training and development. She was employed previously by Lane County Community Health and Social Services and Lane County Employment and Training. She has a master's degree in social work.

The Dislocated Worker Program at Lane Community College is a cooperative effort by the Southern Willamette Private Industry Council, Oregon State Employment Office, and Lane Community College to provide reemployment and/or retraining for dislocated workers in Lane County. Now in its third year, the program has served over 600 workers, with 88 percent having entered employment. The active support of the business community in participating in forums and notifying the program of job openings has contributed to the program's success.

The Dislocated Worker Program recruits and certifies dislocated workers, assesses their particular situation and offers counseling, conducts job search workshops for all participants, operates a resource center daily for the purpose of providing a businesslike environment from which to organize the search for work and to foster networking, determines the need for and offers classroom training to upgrade skills, and provides entrepreneurship training. The Lane Community College Business Assistance Center has provided advice and assistance with planning, and program participants have opened businesses in photography, financial consulting, and landscaping.

THURSDAY, OCTOBER 31--SESSION 8
HANDICAPPED POPULATIONS: COLLABORATION EQUALS ACCESS AND SUCCESS

MODERATOR

Margo Vreeburg Izzo, Program Associate
National Center for Research in Vocational Education
Columbus, OH

Margo Izzo has conducted research on early labor market experiences of youth. She currently is co-project director of a study of handicapped individuals. Before coming to the National Center, she was a special education teacher and was on the staff of the Office of Special Education and Rehabilitative Services, U.S. Office of Education.

James F. Clark, Director
Occupational & Career Education
DeKalb County School System
Decatur, GA

As director of occupational and career education for DeKalb County Schools since 1969, James Clark has worked closely with personnel in the Department of Special Education to develop vocational education services for handicapped students. His primary duties as director are to give leadership to development, improvement, and operation of all phases of occupational and career education in all grades.

The DeKalb County School System provided vocational education services for some handicapped students in the early 1960s. Twenty years later, at the urging of parents, the special education department made an analysis of the employment potential of handicapped students and the educational services available and proposed that additional services be developed. An in-depth study followed in 1983-84, leading to the establishment of a Vocational Rehabilitation Office at the Occupational Education Center. Handicapped students spend part of their day in regular high school classes and travel by bus to the Occupational Education Center for specific job training. Others are enrolled in the vocational education programs that were already in existence.

During the summer of 1985, 60 students had jobs in the private and public sectors. Federal JTPA funds were used, and the students were supervised by their teachers. Through a combination of classroom, laboratory, and live work instruction, 140 handicapped students were helped to develop their work potential during the 1984-85 school year.

Marilyn Loberg, Coordinator
Roberta Hoppe, Instructor
Fox Valley Technical Institute
Appleton, WI

Marilyn Loberg has been coordinator of the Multi-Occupational Aide (MOA) program since 1979. She wrote and administered the Vocational Education project and developed cooperative learning sites in the community.

Roberta Hoppe developed the MOA program at Fox Valley Technical Institute in 1970. She is involved in student training, community agency interaction, and business and industry collaboration. She is co-chair of the Winnebago County Community Employment Issues Committee, and has made presentations for the Wisconsin Vocational Association and the Midwest Association for Individualized Instruction Conference.

The MOA program at Fox Valley Technical Institute, having received the Wisconsin Board of Vocational, Technical and Adult Education (WBVTAE) Exemplary Educational Services Award in 1985, is in contention for national recognition. An active advisory committee of representatives from local community agencies, schools, and business and industry helps to implement this program for handicapped and disadvantaged individuals. The MOA Program has been in operation since 1970, has had a job placement rate of over 90 percent, and has served over 700 students. Fox Valley Technical Institute, local employers, nursing care facilities' staff members, and area agencies have cooperated in designing and carrying out this program for students with special needs. All of the students have severe problems. Their handicaps and disadvantages include mental retardation, mental illness, vision and hearing impairments, learning disabilities, emotional disability, drug abuse, alcoholism, and orthopedic impairment. Among the program's clients are newly displaced homemakers and also students who have been incarcerated.

The multioccupational cluster provides on-the-job training (4 days per week) and classroom sessions (1 day per week) in the areas of laundry, kitchen, maintenance, restorative exercise therapy, housekeeping, and food preparation and service. Students also study personal development budgeting, meal planning, insurance needs, banking services, grooming, human relations, and job search activities. The sharing of private sector facilities and equipment has helped to keep the cost of this training remarkably low. Students may enter and complete the program at different times during the year. The curriculum is competency based, individualized, and offers multiple options.

Terrence Riley, Operations Director
The Association for Habilitation and Employment
of the Developmentally Disabled, Inc.
Lemoyne, PA

Terry Riley has had more than 10 years' experience in working with persons with disabilities. In 1981, he started with the Association for Habilitation and Employment of the Developmentally Disabled (AHEDD) as an on-site trainer and in

1983 became operations director. He manages the organization's Volunteer Interview Network of Employers (VINE), which gives clients practice in interviewing and employers experience with persons who have developmental disabilities.

AHEDD is a private, nonprofit corporation founded in 1977 to secure competitive employment for persons with developmental disabilities. Job-specific skill training is conducted by an AHEDD trainer on-site within a participating company. AHEDD offers business services in recruitment and screening, on-site training assistance, financial reimbursement and tax credits, worker retraining and follow-up, technical assistance, and consultation.

AHEDD's statistics for 1984 showed 244 participants. All were placed in competitive employment, and the job retention rate was 83.1 percent. The participants in AHEDD ranged in age from 16 to over 40, with the average age being 22.68. Males outnumbered females, 70 percent to 30 percent. Many had multiple handicaps; mental retardation and/or learning disabilities affected 85 percent.

James P. Vagnoni, Director
Physically Handicapped Training Programs
Hospital of the University of Pennsylvania
Philadelphia, PA

James Vagnoni, chief administrative officer at the University of Pennsylvania's Vocational Education Service Programs for handicapped persons (Physically Handicapped Training Center) since 1977, has a master's degree in social work and is working on a doctorate in computers and education. He is editor of Viewpoint, the journal of the Association for Rehabilitation Programs in Data Processing, and a member of the Mayor's Advisory Council on the Handicapped in Philadelphia. The Delaware Valley Council on Services to the Handicapped gave him its 1984 award for service excellence. He has served as consultant on various projects concerning vocational opportunities for handicapped persons and is also the author of articles on the subject.

The Physically Handicapped Training Center (PHTC), under the Hospital of the University of Pennsylvania's Department of Physical Medicine and Rehabilitation, provides computer programming training for physically disabled individuals through a 10-month certificate program and includes internship experience at local firms. The Industry Advisory Board, representing major area corporations, assists the operation of the program at all levels. PHTC also offers consulting services to businesses, helping them determine if they can profitably utilize disabled workers, and, if so, conducting seminars to make the employment of such individuals successful.

Michael Byrne; Catherine C. Droy; Linda McKee Szymczak
Southwest Cook County
Cooperative Association for Special Education
Oak Forest, IL

Currently the high school supervisor for the Southwest Cook County Cooperative Association for Special Education, Michael Byrne has been a teacher and work coordinator for high school students with learning disabilities and behavior disorders and the principal of an alternative high school for behavior-disordered students. He has degrees in special education and educational administration and is enrolled in a doctoral program in special education at the University of Illinois.

Having helped develop and implement the Transitional Employment Program at Oak Forest Hospital, Catherine Droy serves as its prevocational coordinator. She is in a graduate program in educational administration at Chicago State University. She was a teacher of educable mentally handicapped students at Hillcrest High School from 1974 to 1984 and chairperson of the school's special education department from 1977 to 1984.

Linda McKee Szymczak is a vocational adjustment counselor for the Southwest Cook County Cooperative Association for Special Education and the Illinois Department of Rehabilitation Services. She has degrees in special education and special education administration. Her experience includes 3 years of teaching and 6 years as a special education coordinator supervising elementary and high school programs for students with learning disabilities and behavior disorders and programs for both the educable and trainable mentally handicapped.

In 1984, the 14 school districts of the Southwest Cook County Cooperative Association for Special Education instituted the Transitional Employment Program as a cooperative effort with two hospitals to provide job training for students in addition to their high school instruction. Thirteen students were enrolled the first year, and it is expected that 50 students will be served during the 1985-86 school year. Students with developmental or severe learning disabilities, educational handicaps, or behavioral disorders are placed on job sites at the hospitals and receive supervision and training. Upon reaching a vocational skill level that indicates readiness for competitive employment, they are helped by a prevocational coordinator and a job coach to make the transition into a job in the community.

Rita Bennett, Associate Executive Director
Goodwill/Central Ohio Rehabilitation Center
Columbus, OH

Rita Bennett has been with Goodwill/Central Ohio Rehabilitation Center (CORC) for 10 years, and she has been involved in the fields of education and rehabilitation for over 21 years.

Goodwill/CORC operates strictly as a professional rehabilitation center, training disabled and/or vocationally handicapped adults. More than 600 persons are served each year. Under Projects with Industry, members of the Business Advisory Committee update and develop skill training programs, serve as consultants, offer internships in their companies, evaluate graduates, and often hire them. Vocational training is offered in general office skills, word processing, medical claims examining, computer operation and programming, data entry and keypunching, and electronics. In the computer training courses, students receive actual on-the-job training.

Another effort of Projects with Industry is a program of training in job-seeking skills. Students develop skills in writing resumes and applications, interviewing, and implementing a job search plan. A job club offers them support and assistance. More than 100 companies in the Columbus area have contributed their services to business advisory committees and Projects with Industry.

THURSDAY, OCTOBER 31--SESSION 9
RETRAINING AND ADULT TRANSITIONS: REVITALIZING OUR WORKFORCE THROUGH
COLLABORATION

MODERATOR

John H. Bishop, Associate Director for Research
National Center for Research in Vocational Education
Columbus, OH

John Bishop, a labor market economist, is the director of the research program on youth employability at the National Center. This is one of the research centers sponsored by the National Institute of Education, U.S. Office of Education. He is the author of numerous articles and books on labor market research, poverty research, and youth employability development.

Al. Moore
CWA/NWB Career Development/Retraining Project
Metropolitan Technical Community College
Omaha, NE

Communications Workers of America (CWA), Northwestern Bell (NWB), and Metropolitan Technical Community College have collaborated in a career development-retraining project that serves nonmanagement employees in Nebraska, Minnesota, Iowa, North Dakota, and South Dakota. Over 100 postsecondary institutions in the 5 states have received tuition and fees from the project, and 44 regional colleges have delivered career assessment and planning services. CWA encourages union members to participate and helps identify training needs. NWB, in addition to paying for employees' participation, has given promotional assistance. Metropolitan Technical Community College developed the career development program and administers it.

In April 1985, the project was named one of the nation's top 10 projects demonstrating cooperative programming by labor, business, and education. It is serving 3,460 employees. Most are enrolled in the career assessment and planning service. Others are engaged in retraining. Over 1,100 employees had taken at least one postsecondary course as of July 1, 1985.

Don Tomlinson, Director
Gateway Vocational Technical School
Batesville, AK

Don Tomlinson, director of Gateway Vocational Technical School since it was opened 10 years ago, has a master's degree in vocational administration and 19 years of experience in vocational education. He is president of the Arkansas

Vocational Directors Association and a member of the board of Vocational Industrial Clubs of America. At Gateway, in addition to supervising personnel and overseeing the operation of the school and its instructional program, he devotes a great deal of time to working with industry in order to structure training programs to upgrade employee skills.

Gateway Vocational Technical School has programs in automotive mechanics, secretarial practices, business data processing, accounting, industrial equipment maintenance, licensed practical nursing, truck driving, employability skills, and career and life planning and also offers workshops for displaced homemakers.

Mary Ellis
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Mary Ellis is vice president of the Council for Adult and Experiential Learning (CAEL). Before joining CAEL, she worked for 12 years with consortia linking institutions of higher education with each other and with community and government agencies and businesses.

The Council for Adult and Experiential Learning works to advance experiential learning and to improve services to adult learners. In addition to maintaining a national network that often joins education and business in regional activities, CAEL is a partner with the UAW-Ford National Development and Training Center in designing, developing, and implementing the College and University Options Program that links Ford workers with participating colleges and universities.

Allene D. Knedlik, Employment Specialist
Women in Transition JTPA Grant Program
Coffeyville Community College
Coffeyville, KS

As employment specialist for the Women in Transition JTPA Grant Program since January 1985, Allene Knedlik collects and disseminates information on employment, job training, and educational opportunities; selects and meets with an advisory committee of representatives from business and industry, assists with designing and implementing curricula and training programs in basic and specialized educational, employment, and job-seeking skills; does assessment of basic skills and vocational aptitudes; and provides vocational counseling and job placement services. She has also served as an alternate on the SDA5 Private Industry Council Board of Kansas.

Women in Transition (WIT) provides unemployed or underemployed women with assessment of skills and vocational aptitude, counseling, training in job-seeking and specialized skills, and job placement. A grant from the Job Training Partnership Act of 1983 made it possible to meet the desperate need of the women in the area. In the first 6 months of the program, 29 of the 50 women who were enrolled completed their training, and 82 percent were placed in jobs. Basic skills training is provided through the Adult Basic Education Center, and participants receive classroom training at Coffeyville Community College and Southeast Kansas Vocational and Technical School in such areas as secretarial skills, clerical skills, accounting, word processing, journalism nursing, drafting, and machine shop, as well as in the job skills needed by geriatrics and medication aides.

The partnership of business, industry, social services, and educational institutions has contributed to the success of WIT. Contacts with the business community through the WIT advisory council have been essential to job placement. Chambers of commerce have helped reach businesses with information about the JPTA programs. Cooperative efforts of the Kansas State Department of Education, Department of Human Resources, regional and local JPTA representatives, and the local educational institutions have provided continuous support.

Rhonda Weaver, Senior Associate
Nelson Harper & Associates
Career Advancement Project
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Currently a market director for Nelson, Harper & Associates, Rhonda Weaver promotes the concept of outplacement counseling and career life planning for employees. As consultant to the Arizona Business-Industry-Education Council, she was instrumental in coordinating volunteer effort for developing the Career Advancement Project. She is also an instructor for the Maricopa County Community College District.

The Career Advancement Project (CAP) is a collaborative counseling and training program for employees, that uses the resources of business and education. CAP is sponsored by the Arizona Business-Industry-Education Council (ABIEC), which also offers training sessions to businesses to help them implement CAP.

The CAP model addresses employee retention, skill enhancement, and career growth through a step-by-step training program that has been tested by professionals representing 30 companies and colleges. CAP is designed to be used by training institutions, fast-growing companies, or businesses facing cutbacks. It has been found to benefit both employers and employees by increasing job satisfaction, developing career planning skills, reducing employee turn-over, increasing productivity and motivation, and generally enhancing the relationship between employers and employees.

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