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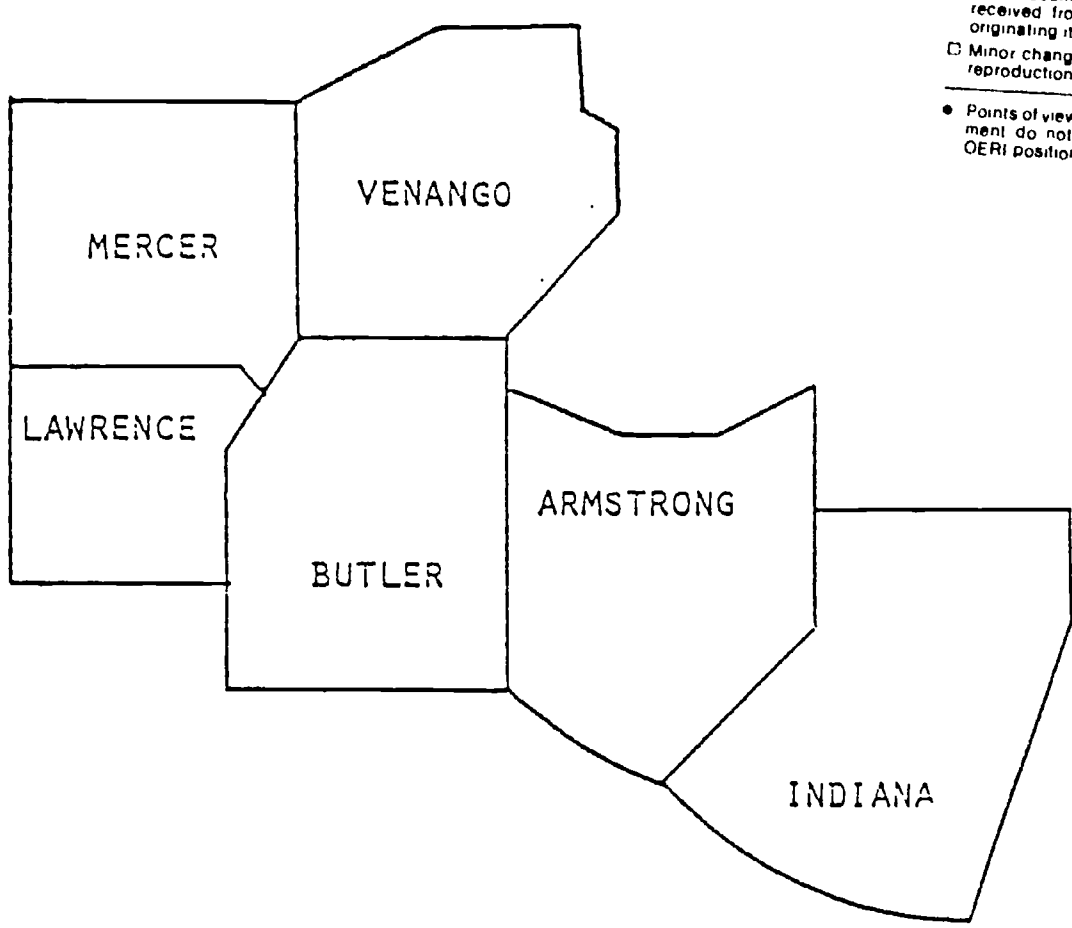
ABSTRACT

This document reports on a project designed to customize training for employees of manufacturing industries in six western Pennsylvania counties. Project goals were to facilitate collaborative vocational and technical training programs between educational institutions and private sector companies and to establish demonstration sites, manufacturing cells, an electronic communications network, and various training programs in high technology areas. Project directors began to implement their programs by establishing local advisory committees. Once these committees had provided a framework for meeting the training needs of manufacturing industries, project staff designed and mailed a needs assessment survey to manufacturers to determine training needs. After receiving survey data, staff built an organizational structure responsive to the training needs, an outreach program that could deliver services through training facilities available in industry and educational institutions, and a telephone and computer network for information dissemination. Promotional and marketing materials were also developed. Ongoing evaluation solicited perceptions of the advisory committee, instructors, schools and institutions, students, and manufacturers. Overall, all responded positively. (Appendixes include maps, management and organization chart, survey instruments, lists of courses, and survey results.) (YLB)

FINAL REPORT

NORTHWESTERN PENNSYLVANIA COOPERATIVE DEMONSTRATION PROGRAM (HIGH TECHNOLOGY)

Project # V199A90089
October, 1990



OFFICE OF VOCATIONAL AND ADULT EDUCATION
UNITED STATES DEPARTMENT OF EDUCATION

FINAL REPORT

Cooperative Demonstration Program
(High Technology)

Conducted by:
The Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Indiana, Pennsylvania

Funded by:
U. S. Department of Education
Department of Vocational and Adult Education

Final Report prepared by:
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INTRODUCTION

As the twenty-first century approaches, the economy of the commonwealth of Pennsylvania, like the rest of the United States, is undergoing rapid change. This change can be attributed to many factors, but in the industrial sector, the transformation has been the result of two major causes: (a) an immediate and continuing need for high-tech training and related services to strengthen business, industry, and education and (b) the need to train and upgrade the skills of the adult workforce.

The Cooperative Demcnstration Training Project at Indiana University of Pennsylvania was designed to customize training for employees of manufacturing industries in six western Pennsylvania counties. Project directors began to implement their programs by establishing local advisory committees comprised of concerned leaders in business, industry and education from the six county service area. Project managers felt that these individuals were aware of area needs and resources, and had potential for the greatest gain if the high-tech training programs proved to be a success. Dedicated groups of concerned community leaders worked hard to guide the project's activities.

Once advisory committees provided a framework for meeting the training needs of manufacturing industries in the six counties, project staff designed and mailed a "needs assessment" survey to more than 4,000 manufacturers in Armstrong, Butler, Indiana, Lawrence, Mercer and Venango counties to determine each industry's priorities in subjects like electronics, computer assisted drafting, word processing, quality control and so forth. After survey data was received, staff members built and implemented the following:

a. an organizational structure that would be responsive to the training needs of business and industry.

b. an outreach program that could deliver services through taining facilities already available in industry, secondary schools, 2-year community colleges, and 4-year colleges and universities.

c. A telephone, and computer network for information dissemination.

The project was successful in developing and delivering outreach training. Its success was due to several key factors. First, the project was developed and administered by the faculty and staff of a highly respected state university (Indiana University of Pennsylvania) which has a successful track record of vocational-technical teacher preparation in northwestern Pennsylvania. For 12 years, the university has offered vocational-technical seminars, workshops, and related education services to members of the educational community and the private sector.

Second, the staff of the cooperative demonstration training project linked private business and industry with each of the vocational-technical schools in the 6-county area, plus two adult education centers, one four-year university, Butler County Community

College, and proprietary schools like PowerSafety International, (a technical training center established by the Pennsylvania Power and Light Corporation). Since these schools were located near businesses and industries whose workers needed training in high-tech subjects, personnel managers and employees were able to enroll in evening and daytime classes with very little trouble.

Third, the project did not duplicate an existing high-tech training service. Through telecommunications networking, project directors linked educators with economic groups, industrial personnel managers, and directors of training facilities in the 6-county service area.

The success of the cooperative demonstration project proved that there is no substitute for providing local business and industry with local training for their workers. Having a third-party agency such as Indiana University of Pennsylvania's Center for Vocational Personnel Preparation available to plan and organize training programs and demonstration sites greatly enhanced the effort and its achievements.

Intended Outcomes of the Project

The outcomes of this project were: (a) to facilitate collaborative vocational and technical training programs between county vocational technical schools, private, post-secondary trade schools, higher education institutions, regional economic development agencies, and private sector companies, and (b) to establish demonstration sites, manufacturing cells, an electronic communications network, and various training programs in the following high-tech areas:

Computer Assisted Design and Drafting (CADD)
Computer Assisted Manufacturing (CAM)
Computer Integrated Manufacturing (CIM)
Computer Numerical Controlled Machining (CNC)
Electronics Technology
Word Processing and Spreadsheet Development
DataBase
Disk Operating Systems (DOS)
Fluid Power
Higher Level Mathematics (Trigonometry, Geometry, Calculus)

The program's management and implementation team was based at the Center for Vocational Personnel Preparation at Indiana University of Pennsylvania. Thomas O'Brien and Michael Spewock served as co-directors for the project and also acted as the liaison between industry and education. A project field office was established in Kittanning PA to enable project managers to coordinate their training program efforts with an economic development organization called Partners for Armstrong County's Economy (PACE), and a computer information service established by Indiana University at its branch campus in Kittanning, PA called the Center for Applied Communications and Information Systems (CACIS).

The two project directors met each day to evaluate the progress of program activities and ensure that the activities were meeting program goals and objectives. Spewock and O'Brien also contacted administrators and teachers working in community colleges, four-year universities, private industry, economic development groups, and other community leaders in an effort to establish a program advisory board. (A management and organization chart is shown in Appendix B).

The advisory board met four times each year during the vocational center's regularly scheduled Strategic Planning Committee meetings and acted as a steering committee for the cooperative demonstration training project. Advice and suggestions from representatives from special interest groups was solicited to insure that the program met the needs of education and industry in the six county area. (See Appendix C for a list of Advisory Committee members.)

BACKGROUND OF THE PROBLEM

Pennsylvania has 67 counties within its borders. The six county area in which the Cooperative Demonstration Training Project operated averages 37th in the total number of manufacturers statewide(See Table 2). The project operated in Armstrong, Butler, Indiana, Lawrence, Mercer, and Venango counties (Appendix B). The citizens who live in the project's six county area have high unemployment rates and depressed economic conditions and their geographic region is in need of support to help the surviving industries to remain competitive.

The 1987 unemployment rate in the six county region averaged 7.7 percent compared to Pennsylvania's average of 5.7 percent, and the national average of 6.2 percent (See Table 1). Armstrong and Indiana counties had 9.5% and 9.3% unemployment rates which ranked them seventh and eighth highest in Pennsylvania. The six county region in northwestern Pennsylvania has experienced high unemployment, manufacturing loss, and shifts to jobs in the service sector which has resulted in lower wages to employees.

Perhaps the most demanding challenge facing these six counties in northwestern Pennsylvania is the restoration of their competitive position in the national and global marketplace. During the last fifteen years, the economic strength of the area has experienced a gradual decline in basic industries such as coal and steel production. The loss of these markets and their supporting industries to companies using cheap materials and labor in foreign countries has led to an exodus of more than 3,000 residents to eastern Pennsylvania and neighboring states, and a decline in real earnings for workers who still reside in the western portion of the commonwealth.

In 1980, Volkswagen America joined the list of manufacturers to discontinue production and leave Pennsylvania. This has caused more than 3,500 auto workers to lose jobs which they had held for ten years or more. The resulting "domino effect" from the loss of coal and steel production as well as heavy manufacturing industries like Volkswagen has had a devastating impact on commercial business investments, Western Pennsylvania schools, and the communities which grew and prospered along with industry in Northwestern Pennsylvania for the past 100 years.

Although business and industry in Northwestern Pennsylvania have experienced a decline, the trend can be reversed if adequate resources are made available. State leaders have said that there is a need for investments in training and technology transfer. Together, these could promote both new growth and competitiveness and strengthen traditional industries. To reach this goal, training programs, consulting services, and technology transfer demonstration sites must be established Communication and information systems must be improved between and among the private sector, the vocational school network, and other public educational institutions and agencies.

The Cooperative Demonstration Project, which focused on addressing these problems, was given a two month extension to August 30, 1990 in order to complete training programs needed by manufacturers. What follows in this final report are the outcomes of the set goals and objectives. A detailed procedures manual will be included with this report. Therefore, it is important to make new industries aware of the many possibilities for technical updating in this area.

TABLE 1

1987 ANNUAL AVERAGE UNEMPLOYMENT RATE
SIX COUNTY AREA

Armstrong	Butler	Indiana	Lawrence	Mercer	Venango	Average
9.5	6.5	9.3	6.6	6.7	8.0	7.7

Source: Pennsylvania Office of Employment Security
(Pennsylvania rate: 5.7%
United States rate: 6.2%

TABLE 2

1987 Number and Rank of Reported Manufacturing Establishments and Employees for the Six County Region Served by the Western Pennsylvania Cooperative Demonstration Project

	Establishments		Employees	
County	Number	Rank	Number	Rank
Armstrong	69	39	3,016	50
Butler	158	22	8,117	32
Indiana	53	45	2,935	51
Lawrence	139	25	8,107	33
Mercer	126	26	14,014	21
Venango	77	38	4,881	38
Total/ average	622	33	41,070	38

Source: Pennsylvania Abstract, 1987

RECRUITMENT OF STAFF

This project required staff members on two levels. One group of personnel was needed to link educational facilities with private sector manufacturers. Field resource persons from IUP's vocational education teacher preparation program were already working in the six county area and they were responsible for talking to interested companies then relaying company needs to the vo-tech school's industrial education coordinator or adult education director. Since field resource persons resided in counties in which the training programs operated, they had already established working relationships with managers of many educational organizations. This saved an inestimable amount of planning time.

Once the linkage between schools and industry was established, the second group of staff members acted. These were inservice teachers in county vo-tech schools, private trade schools and community colleges. The only exception to this was the case of Hiller Corporation--a private company that operated educational programs in fluid power on a contract basis with other industries in western Pennsylvania, west Virginia and Ohio. Evaluations of the administration of the cooperative demonstration project and its training programs testified to the ability and talent of both groups of personnel. This success was attributed to staff members' knowledge of vocational education and high tech subject matter. One of the recurring comments on the student evaluation forms was a positive assessment of the instructor who had taught

RECRUITMENT OF CLIENTS

In an effort to determine the needs and concerns of manufacturers in the six county area, 4,000 comprehensive surveys were sent to companies with 200 employees or less. (See Appendix G) The results provided good needs assessment data and information which determined the content of training courses and workshops. (See Appendix J for a compilation of survey responses.)

Primary businesses/industries answering the survey were:

Metal Products
Machine Products
Machine Shops
Tool and Die Builders

Of the 15 specific areas suggested for training and educational updating, the following were most often requested:

1. quality control systems
2. computer controlled machines
3. marketing/sales
4. computer integrated manufacturing
5. word processing/spread sheets
6. computer aided drafting/design

The repeated requests for this kind of training illustrated the widespread need for training and/or updating in the computer field.

In response to the question regarding areas of concern within the company, the situation cited twice as often as any other was "difficulty in finding new employees with necessary skills." This corresponded directly with the hypothesis of the project which stated that workers in western Pennsylvania are not equipped to work in high tech jobs.

When company representative were adked if they felt that they would like to visit plants where advanced manufacturing technology was being demonstrated, the answer was overwhelmingly positive. On the other hand, manufacturers were only mildly interested in the opportunity to participate in training, and a chance to share information with other manufacturers.

The results of this survey provided a profile of the education and training concerns of manufacturers in a six county area in western Pennsyvlania. A survey of this kind should be considered when developing a project of this nature in any geographic region in the country.

ACHIEVEMENT STATUS OF PROJECT GOALS AND OBJECTIVES

PROPOSED GOAL-IA. To insure an organizational structure that is responsible to needs of business and industry and the training needs of adults in the six county area of Western Pennsylvania.

PROPOSED OBJECTIVE- A. Develop an outreach program delivering services through existing facilities in industry, secondary education, and higher educational institutions.

STATUS/ACHIEVEMENTS OF PROPOSED GOALS AND OBJECTIVES

1. Establish advisory committee

The advisory committee that was formed for this project (refer to Appendix C) functioned as an integral part of IUP's vocational education Strategic Planning Committee. This committee was established in 1985 and was made up of directors of county vocational-technical schools, representatives of post secondary schools, economic planning agencies, and local industry. The members of the committee asked representatives of business, industry, and education if they would be willing to serve on the advisory committee. Invitations were sent to these people, and those who accepted the invitation served on the committee. The committee members met three times each year. At their meetings, they provided information about the training needs in their organizations, and sources of books, materials, technical updating classes and other educational resources that might fill the needs of area manufacturers.

The first meeting of the committee took place two months before the application for the cooperative demonstration project was submitted to Washington. At that time, members were asked for suggestions for writing the project, advice on project goals, and recommendations for making linkages between private industry and public schools. The advisory committee participated actively in developing the survey instrument used to gather feedback from business and industry in northwestern Pennsylvania. Committee members often gave suggestions on issues that involved their local industrial or education community.

Members of the advisory committee who were called by the evaluators of this project expressed positive reactions to the programs that were operated and the managerial skill of the IUP staff who operated those programs. During discussions with advisory committee members, we found complete agreement concerning the need for and importance of the kind of coordination provided by this grant. Several members of the advisory committee said that Tom O'Brien and Mike Spewock, the project co-directors, made every effort to call the directors of the county vocational-technical schools to ask if they were permitted to use their educational facilities, and to request help in all facets of decision-making. See "Perceptions of the Advisory Committee."

2. Establish an administrative office that will serve as a base for project coordination and implementation.

The Center for Vocational Personnel Preparation at Indiana University of Pennsylvania served as a base for project coordination and implementation. When the project application was written, a "project coordinator" was identified to work for the two project directors. Unfortunately, this person decided to accept a position with an engineering firm in the city of Pittsburgh, and a suitable replacement for him was not found. As a result, Michael Spewock, assumed this roled and acted as project coordinator for the duration of the project. Dr. Spewock asked for and received permission from Washington to move money that had been earmarked in the project for a coordinator's salary to the "training program" category in the budget. (See Appendix D: Letter requesting extension of the project through August 31, 1990.) The 47,000 dollars that was set aside for an 18-month contract for the project coordinator was used to hire additional instructors, purchase more books and materials, and pay for extra laboratory and equipment rental. Thus, the high tech training programs were extended into the summer months.

Objective IB - Identify and catalogue existing resources and facilities for training and demonstration sites.

Although steps were taken to identify resources and facilities, an industrial capacity register containing a list of westmoreland county industrial and educational resources was not compiled. When the project was in its initial stages, the Southwestern Pennsylvania Industrial Resource Centers (SPIRC) organization (established by Pennsylvania governor Robert Casey) had requested that an industrial education register be compiled. SPIRC had been receiving requests from their clients for a listing of manufacturers in the Pittsburgh area who had already installed specific highly technical equipment. The purpose of the industrial capacity register was to provide manufacturers with a reference book which contained a list of products, manufacturing processes, etc. which they could review. It was hoped that manufacturers would visit other industrial sites to learn how they could incorporate similar technology in their own plants.

The project goal, therefore, was written to answer this need. Soon after the objective was included in the federal grant application, however, the SPIRC organization experienced some difficulties with its internal structure and soon, the SPIRC leadership group began to place less emphasis on both training programs and their industrial clients who requested the industrial capacity register. Since the Vocational Center at IUP did not have other clients who needed or had requested an industrial capacity register, it was not compiled.

An attempt to identify existing resources, however, was initiated early in the first year of project operation before SPIRC began to experience trouble. Identification was accomplished in three ways:

1. Directors of vocational-technical schools and representatives of other educational institutions provided information during advisory committee meetings.

2. Surveys requesting the name of a person who would be willing to identify resources were sent to educational institutions. The survey also asked the respondent to complete a checklist of programs, facilities, and instructor capabilities available at his or her institution (Appendix F).

3. Field resource persons who were already familiar with area educational facilities near their homes in each of the six counties provided a list of existing resources. The list included names of instructors and an inventory of equipment that was available for training.

OBJECTIVE IC - Establish six a county network for information dissemination

The project directors began to accomplish this objective by loaning a personal computer to each of the six vo-tech directors in Armstrong, Butler, Indiana, Lawrence, Mercer and Venango counties; the project service area. An instruction booklet describing

the "electronic mail" system was also provided. (See Section 13 of the process manual for a copy of the booklet.)

The electronic information network which was installed on the personal computers was met with varying degrees of acceptance by the vocational school directors. Some used it regularly but others relied on the telephone for communicating with training project staff. For many, the electronic mail system required too much learning time and most administrators didn't have the free time that was required to understand its operation and use it with ease. As a result, the telephone (not the computer) was the instrument that directors used most often for linking the vo-tech schools to the vocational center at IUP.

Computer linkages were also established with the Southwestern Pennsylvania Industrial Resource Center, (SPIRC), the Center for Applied Communications and Information Systems (CACIS), and the office of Partners for Armstrong County's Economy (PACE), with varying degrees of success. The Kittanning field office of CACIS was established to coordinate efforts with PACE. At the beginning of the project, much time was spent on the linkage with SPIRC, but as time went, this linkage deterioriated. The reason for this was a problem with the internal reorganization taking place in SPIRC which, unfortunately took place during the early months of the cooperative demonstration training project.

Two major factors contributed to the inability of project staff to develop a six county computer network for information dissemination between educational and industrial organizations. First, most manufacturers with less than 200 employees did not have the computer hardware needed to "log on" to the university's electronic mail system. Responses to the "manufacturing survey" mailed to these people demonstrated that there was little uniformity of computer hardware and software among private sector companies.

The second factor which contributed to the problem was the size of the geographic area in which the project took place. It was very difficult for the FRP's to cover the assigned areas and carry out their regular duties as field faculty members at the same time. It was almost impossible for them to devote enough time to one manufacturer to develop a trusting, working relationship.

Conversely, the efforts of the advisory committee and the IUP field staff produced new networks between private industry and education. This can best be described with an example. Before the cooperative demonstration training project offered service to employers in Venango county, the owners of the FRB Machine Shop (located in Emlenton, PA) had experienced little success in finding a source of high tech training for the employees of their company. The vocational technical school in their home county (Clarion County) did not have a machine shop that could deliver instruction in higher level mathematics, or computer controlled machine tools. The closest school that could provide such classes was almost 60 miles away in Oil City, and too far for employees to drive after the end of the work day. Mike Spewock contacted Robert Bickerstaff, the director of the Clarion county vocational-technical school, and Mark Brosnahan, the co-owner of FRB. As a result of their meeting, a mathematics course was custom designed

for FRB and taught by an instructor from the Clarion County Area Vocational Technical School. This successfull linkage led to further training of FRB employees by the MAZAK computer controlled machine training center in Florence, Kentucky. One of the results of this successful linkage was that Mr. Brosnahan volunteered to serve on the Advisory Committee of the Clarion Area Vocational Technical School. His participation created a significant bond between education and industry.

In summary, objective IC was met as follows: Electronic networking was established between the six vo-tech schools, CACIS, and PACE using personal computers and telephones. The telephone was used more frequently than computers for communication.

Section 9 of the process manual contains some excellent recommendations for utilizing the electronic network to establish a model for high-tech training. This concept could be applied to any geographic area in the country and would use existing resources in both education and industry.

Objective ID - Focus on educational programs developing high tech skills in new and emerging technologies.

The cooperative demonstration training project's target areas were determined by information received from the manufacturers' survey (Appendix G). The survey was sent to 4000 companies that had fewer than 200 employees. Survey response forms indicated a need for the following areas:

1. clerical: word processing, data processing

2. operatives/craft workers: machinists, tool and die makers, hydraulic and pneumatic technicians.

3. professional/technical: white collar managers, CAD operators, CNC machine operators, and computer integrated

4. manufacturing systems technicians.

Because of time constraints, the project directors were unable to follow up the paper-and-pencil survey with telephone calls to gather additional survey information.

One of the most successful methods of determining a manufacturer's needs was a personal visit to the office of personnel managers. In Indiana County, this was accomplished by the adult education coordinator at the Indiana Area Vocational Technical School and the employee relations representative from the local Employment Services Bureau. Both women visited local companies to assess their training needs. The employee relations representative was willing to advertise vocational-technical school programs to her clients in industry. Such personal contacts resulted in the creation of a number of training programs which otherwise might not have developed.

Once employee training needs were assessed, the following institutions were contacted to determine existing training capabilities:

- Butler County Area Vo-tech School
- Clarion County Area Vo-tech School
- Indiana County Area Vo-tech School
- Lawrence County Area Vo-tech School
- Venango County Area Vo-tech School
- Butler County Community College
- Power Safety International, a training school established by the Pennsylvania Power and Light Company
- Harry T. Kerr Adult Skill Development Center
- Ralph T. Hiller Hydraulics
- MAZAK training school

It should be noted that all of these schools except the Butler County Community College and MAZAK training school already had a professional linkage with IUP.

When a particular manufacturer requested training for more than ten of his employees, classes were customized for that one industry. Both instructors and manufacturers felt that these training sessions were more effective than large group sessions which were offered to a few employees from several different industries.

After training needs were established and school facilities identified, the instructor of each class talked with the manufacturer and project director, or worked alone to design the high tech training program. Section 8 of the process manual contains information that explains the steps that were taken to accomplish this. Sample course outlines for several training classes are shown in section 10 of the manual.

The final list of training classes that were offered to employees of manufacturing industries did not conform to any particular patterr. As the project developed, a variety of factors caused the success of each individual agreement between industry and education: These included:

1. the amount of cooperation from the industrial-education coordinator or adult education director in each school.

2. the needs of the manufacturers and their willingness to not only release employees to participate in training classes, but also their willingness to participate in the design of training programs.

3. manufacturing cycles which made it difficult in some cases to schedule classes when facilities were available.

4. the mutual understanding between industry and education that this training was to provide technical updating which should, in turn, provide employees with new skills rather than skills for low-tech manufacturing and production jobs in the plant.

5. A listing of workshops and courses, school locations, and names of industries whose employees received training is provided in Appendix H.

PROPOSED GOAL - II. Develop educational programs and training programs that meet the needs of adult learners, business and industry and the future labor market.

PROPOSED OBJECTIVE - A. Provide skill updating workshops for business employees and unemployed adults in the six-county area.

Educational programs were open to all interested men and women who were employed in manufacturing industries in northwestern Pennsylvania. The programs attempted to help people keep their jobs, and tried to assist other workers who wished to move into new high tech areas in their organizations. Although many unemployed workers would have wanted to enroll in some of the high-tech training classes, this was not the focus of the training programs and thus, they were not allowed to do so. In some cases, manufacturers stated that they did not welcome unemployed people in the same classes with their workers because they could not forsee a need for more workers in that area, and did not want to assume the responsibility for people who were not employed by them. On the other hand, in at least one case at the Indiana Area Vocational Technical School, an unemployed worker enrolled in a computer training class offered by the cooperative demonstration training project and successfully found employment in that field.

All training programs emphasized hands-on-training and were designed to avoid interfering with employees' regular shift work. During the project's evaluation, participants were asked for their suggestions for program improvement. Overwhelmingly, workers asked for "more time." Workers were also asked to list preferences for future training programs which would be helpful to them in their jobs. These answers were used to help design future programs. Section 8 of the process manual provides specific program information.

It is important to note that programs were not limited to formal courses presented in educational institutions. The Ralph Hiller Company, for example, was hired to present a workshop on Fluid Power. In addition, training was provided to several industries by qualified adult "skills centers" which are funded by the Pennsylvania Department of Labor.

As mentioned earlier, courses designed for specific manufacturers usually took place in the local county vo-tech school. In each case, the approach that was taken in developing and implementing the classes varied according to available training facilities and needs. In Clarion County, for example, the FRB Machine Shop expressed a need for an advanced math course. The project coordinator established a linkage with Clarion County AVTS. The math instructor from Clarion vo-tech visited FRB and asked for a description of the math areas which employees needed to learn. The math course was then designed with those specifications in mind. In contrast, in Indiana County, several manufacturers expressed a need for specific training in Computer Assisted Drawing and Design (CADD), Microsoft Disk Operating System (MS-DOS), etc. and programs which covered different levels of expertise in these fields were offered simultaneously to several companies at the county vocational-technical school.

OBJECTIVE IIB - Promote educational and training programs via newsletters, brochures, public forums, etc. In the six county area.

Norton McKnight of Creative Selling in Carnegie, PA was hired to develop a set of computer diskettes which were used to explain the scope and potential of the project to possible clients. The program was titled "High Tech Training for Advancement and Productivity in Manufacturing Industries" and covered two general areas. A copy of this program will accompany the process manual. A general outline of the program follows:

1. Prepare High Tech Training
    a. Who is eligible?
    b. What training is available?
    c. How will you benefit?
    d. Available funding
    e. How training will be delivered
    f. How to get started

2. Employee Preparation

Explains that a customized needs assessment will be conducted and prerequisites will be determined for the program. The assessment will be made up of Literacy and skills levels. Employment preparation for high-tech training will be determined - adult literacy, occupational survival, basic work skills, and computer literacy.

A professional advertisement for technical updating workshops was created. This emphasized interaction with others in technical fields and hands-on experience. Several public relations brochures were designed in-house (see Goal IIIA) and distributed by mail and during personal visits to companies. Although project staff had hoped to develop a newsletter, the publication did not materialized because of a lack of time and staff.

OBJECTIVE IIC - Identify and hire teachers

The majority of instructional programs took place in educational institutions and employed in-house instructors identified by either the director or the adult coordinator. These people were paid as adjunct, temporary part-time faculty of the university. Because the instructors were familiar with the facilities, the logistics required for offering adult training classes created few problems.

In one case, Charles Thompson, a carpentry instructor from the Indiana Area vo-tech school, spent his sabbatical leave at IUP where he became proficient in the use of word processing, Lotus, and desktop publishing systems. As a result of this computer training, Mr. Thompson was also able to participate in the cooperative demonstration project as a part-time word processing instructor for several local industries.

Instructors from the Ralph Hiller Corporation of Castle Shannon, PA was hired to present a workshop on Fluid Power to employees of three different manufacturers. The cooperation and documentation provided by this private consultant was excellent.

Section 14 of the process manual provides specific information on hiring and payment of instructors.

OBJECTIVE IID - Supply necessary materials

Teachers for each class determined which workbooks and textbooks were to be purchased. The names of the vendors who supplied these materials were included in a purchase order covering the costs of each pro

OBJECTIVE IIE - Identify private sector consultants

One consultant from the private sector was asked to participate in this project. He was Bob DiMarcki of the Hiller Corporation, manufacturers of hydraulic tools and equipment. (For more information about the Hiller corporation, refer to Section 10 of the process manual.)

GOAL III. Share the program model with other interested individuals and groups.

OBJECTIVE A: Develop promotional and marketing materials

Several different approaches were used to achieve this goal:

1. A series of brochures (Appendix I) was designed by Charles Thompson, a vocational education instructor on sabbatical leave from the Indiana Area Vocational Technical School. Mr. Thompson used a variety of attractive brochure designs to combine specific descriptions of course content with information about how the project could help manufacturers. These materials were sent to representatives from industry who responded to the survey. The materials were also used as marketing tools by Tom O'Brien, Mike Spewock, and the field staff during visits with personnel managers in private industry. The brochures were developed and printed at IUP's campus printing service which significantly reduced the cost of production.

2. Promotional materials mailed to respondents of the survey included a rolodex card entitled "Technical Updating" which contained information about SPIRC and CACIS. Names and telephone numbers of representatives at these organizations were printed on the card. This marketing tool was designed to promote networking between industry and these two organizations.

3. A presentation was developed on computer diskette and mailed to manufacturers who wanted to know about the cooperative demonstration training project. The diskette program allowed users to ask questions about specific areas of training needed by their employees (see Section IIB).

4. A video tape recording was made to document the workshops that were held as part of the demonstration site program at the H.T. Kerr Skills Center in Titusville, PA. The video tape can be used to show manufacturers how demonstration site programs can be offered by equipment vendors to assist industrial clients who want to see an overview of a variety of technologies before investing their capital.

OBJECTIVE B: Evaluate progress and outcomes of training programs

Short term and long term evaluations of this program were implemented. The evaluations were used in the following way. After each course was completed, students were asked to respond to statements on an evaluation form. These comments and suggestions were then shared with the instructor of the class, then forwarded to the project director at IUP.

During the summer of 1990, after most of the training classes had ended, surveys were sent to manufacturers whose employees had taken part in the training programs. The results of the students' and manufacturers' evaluations are shown in the section of this report entitled "Perceptions." (Copies of the evaluation forms used by students and manufacturers can be found in Section 15 of the process manual.)

Members of the advisory committee also participated in the evaluation process. This group met every four months and shared their problems or concerns about the training programs that were being offered in their geographic areas.

Evaluation was also carried out on an ongoing basis by the two project directors. They discussed the concerns of the advisory committee during their daily, informal meetings. They also met with each field staff member on Friday of each week to listen to progress reports about training programs.

The final outcome of all training programs with accompanying evaluation summaries are contained in this document. A model for program evaluation is also presented in the process manual which accompanies the final report of this project.

PROJECT STAFFING

The lack of a project coordinator placed a burden on O'Brien ans Spewock--neither of whom had time to travel to industrial or school facilities in the six county territory in which the project operated. This problem was overcome, however, by assistance from the Vocational Center's field resource staff. Field Resource Personnel (or FRP's) are teaching faculty who faculty live and work as "distance educators" in the six county area. Thie job is to work with with teachers in county vocational-technical schools as they complete their vocational teacher certification programs. Because the FRP's are residents in each of the six counties, they and are familiar with educational resources in their area and local political strategy. These people effectively replaced the project coordinator and provided the necessary link between business, industry, and the project director at IUP. (Appendix E contains a map which lists the field resource persons who assisted in each of the six counties.)

The field resource persons served the project in the following way: Requests for training were identified by the manufacturers' survey. Response forms from the surveys from each county were given to the appropriate FRP who called personnel directors in industry. After personnel managers told the FRP which training program was needed by his employees, the FRP relayed the message via electronic mail to Mike Spewock or Tom O;Brien at IUP. Plans were then made to establish training programs, develop contracts for teaching personnel, purchase materials and supples, and so forth.

Since field resource persons were not given extra pay for the work they performed for the cooperative demonstration project, this portion of the linkage created no cost to the project. Additional information concerning the fiscal management of the project can be found in the Process Manual which accompanies this report.

DEMONSTRATION SITES

Two demonstration sites were planned - one at the H.T. Kerr Skills Center in Titusville, PA, and the other at the Erie Skills Center in Erie, PA. Programs planned for the H.T. Kerr Skills Center, however, were the only programs actually carried out. They were done in partnership with the GTE Corporation in Erie. The demonstration site programs offered at H. T. Kerr on Machine Vision and Computer Networking were successful and have been documented on videotape.

The administrators who manage the Erie adult skills center showed interest in hosting a demonstration site program during one of IUP's Strategic Planning Committee meetings. They did not carry out their plans, however, even though several efforts were made to encourage them to do so by the project directors at IUP.

Programs emphasized hands-on-training and were designed to avoid interfering with current work. As part of the final evaluation, participants were asked what changes they would like to see. Overwhelmingly, they asked for "more time." In addition, they were asked to list further training which would be helpful. These answers were used to help design future programs. (Section 8 of the process manual provides specific program information.)

PERCEPTIONS

ADVISORY COMMITTEE

All members of the advisory committee were contacted for this final report, and they were unified in their opinions concerning the total success of the project.

Dr. Frank Como, Director of the Industrial Research Center, expressed the group's general perception: There is a tremendous need for members of the educational community to offer training to the private sector. In his own work with manufacturers, Dr. Como has continually been made aware of the need for technological updating if our employees are to gain the skills and knowledge to remain competitive. Customers are increasingly demanding this , and it has resulted in a positive change in manufacturers' attitudes towards training.

Dr. Como felt, as did a number of other members, that had this grant gone to another agency, there would have been problems. When asked why, he said that IUP already had the structure set up to handle work with the various groups, and had an excellent reputation for experience in vocational education , linkage, and cooperative working relationships. In addition, the Center staff, particularly Dr. Spewock, were totatally committed to the project

Committee members felt that they had been included in and consulted on decisions concerning both the manufacturers and the educational facilities. As mentioned earlier, the advisory committee was a part of the larger Strategic Planning Committee which was already functioning to coordinate the educational facilities with local economic needs.

The one concern voiced by several members was that the need for a training and development element had been clearly demonstrated by this project. When the project ended, would the coordination continue between education and the private sector? Would the separate entities make a continuing effort to promote this linkage or was a permanent coordinating effort necessary for continuing success?

INSTRUCTORS

Because the individual; instructors were so important to the success of this program, we chose 23 to be surveyed for their reactions and recommendations. (**Appendix K** contains a copy of the instructor letter and survey.) One-third of the instructors answered our request.

Many of the questions covered areas which should be addressed if future training funds become available. For the purposes of this evaluation, we asked if one of the main project objectives was met: **To facilitate coordination between private and existing facilities.** The general reaction is captured in the following quotation from one of the surveys: "Strongly believe the goal was met. Many students had not participated in classroom activities or programs since high school and their reaction was extremely positive."

Possible areas given by the instructors for improvement:

1. Concrete incentives for employees who sometimes showed disinterest or lack of committment.

2. More groundwork at the manufacturing site so the students understood the purpose of the training.

Several teachers commented on the fact that the industries which they had served often could not afford or provide necessary training. They felt that this grant had been extremely effective in opening the school's doors to these businesses and had made them aware of the importance of updating in different fields.

SCHOOLS AND INSTITUTIONS

School directors involved in this grant were extremely cooperative when contacted during the writing of this final report. The overall impression was that implementation of the grant was highly individualized according to area needs and that the support from IUP was 100%. The involvement and attitude of the project director was cited as one of the main reasons for the success of the

grant. Every effort was made to dovetail the grant and its direction with existing adult education programs in each of the six counties.

One of the primary successes of the program was in connecting private enterprise with existing training facilities. In Indiana County, for instance, employees from thirteen different industries enrolled in CAD classes. As a result of this involvement, several manufacturers have contacted the adult education coordinator at the Indiana County AVTS about possible future private industry contracts.

In Venango County, the grant provided electronic training for three manufacturers too small to qualify for the State of Pennsylvania's Customized Job Training grants. In addition, it made possible on-site high-tech machine training for a company located 55 miles from the Venango County AVTS. Their employees would have found it difficult to attend night classes at the AVTS. The instructor from the AVTS was sent to the factory for highly specialized training and then conducted classes for the employees. This individualized approach made the funding particularly successful. It not only benefited the manufacturer, but also improved and upgraded the AVTS instructors skills and knowledge. (**See appendix H**) for training institutions and industries served.)

In many cases, instructors from the schools went directly to the companies to determine specific needs and to write a customized curriculum. The project director, in some instances, was involved in this as well. The most successful classes seemed to be those which were designed for the needs of one specific manufacturer.

During the grant period, funds were easily accessed, and there was little red tape required. The only negative comment concerned the waiting period for monies, and the unanimous sentiment from those interviewed seemed to be that the delay was not with the Center for Vocational Personnel Preparation, but with either IUP's business office or the Federal government .

STUDENTS

Student perceptions were determined in several ways. A general information or registration form was used which asked participants to list areas which they wished to have covered as well as their personal expectations from the class. See Section 11 of the Process Manual for more detail. This was primarily used by the instructor in designing his/her material, emphasis , and approach.

At the end of each course, workshop, or seminar, students were asked to complete an evaluation form. (A sample can be found in **Appendix L**) One hundred and twenty-one of these forms were analyzed. The results are shown in (**Appendix M**). Overall, the responses were very positive. The most prevalent suggestions for improvement of the programs were :

1. Provide more hands-on training. In most cases, this was an integral part of the course but class time limited this type of experience.

2. Lengthen the class sessions. Most people felt that the material was excellent but that they needed time to assimilate it and apply it.

Instructors were rated as both knowledgeable and interesting. As one participant said, "[His instructor] kept the students interested and not dumb-founded." Overall, instructors were perceived as being familiar with both current equipment and procedures and the needs of adult learners.

A final survey was sent to a random sample of 111 program participants at their homes. (A copy is shown in **Appendix N.**) In less than two weeks, we had over a 30% return. The purpose of the survey was to see how the instruction had benefitted the participant after he had returned to the workplace. Out of all the responses, only one person felt that the time and location were inconvenient.

As far as suggestions for improvement were concerned, the majority of respondents felt that there was little which should be changed. In the case of the CAD instruction, several students wanted some introductory work on MS-DOS. One student who enrolled in Data Base III and MS-DOS suggested that personal computers be made available for home use during the instructional period since time for practice at work was not possible. In addition, several enrollees asked for more work stations and smaller classes to facilitate learning.

The focus of the survey was to ascertain the program's benefits. These cannot be summarized statistically; therefore, we have listed several of the more typical comments:

- "I have a better understanding of reading blueprints ."

- "I am more aware of the new changes in the *Code which helps me in my work." *National Electric Code Update

- "Helped me to become more proficient with computer technology at my job." MS-DOS, CAD, and ADVANCE CAD

- "Training adequate to enable me to obtain job requiring use of 1.2.3. program." Lotus 1.2.3

- "Yes - Now teach Robotics as part of my class."

- "It has made me aware of the technology in the area as well as hands-on experience with the CAD programs....As soon as computers and funding are made available at my teaching district, I would like to implement CAD into the program."

- "It has made trouble shooting electrical circuits much easier and gave many short cuts to get to the root of the problem."

- "I am now teaching CAD and feel very comfortable because of the CAD workshop."

- "Broadened my knowledge of computers."

- "The school district that I work for is initiating a new CAD program; this will be a great help for us. The program couldn't be more appropriate."

The final survey also asked for further comments. This seemed appropriate since students were no longer a part of the program and had had time to reflect on and/or apply the material. Suggestions fell into the following general categories:

1. Better/more advertising
2. Additional programs/courses in more depth should be offered.
3. More lab work
4. Appreciation with hopes that the funding would continue
5. Technical updating should be mandatory
6. Offer credits for training
7. Requests for specific classes

Several surveys ended with an expression of not only thanks but also the hope that funding would continue for this type training.

MANUFACTURERS

Thirty three surveys were distributed in a random sample of companies served. (**Appendix O** contains a copy of the letter and survey.) Sixteen forms were returned; one was not completed because the manufacturer was closed

during the summer due to lack of demand. The following illustrates the responses:

	EFFECTIVENESS				
	Very	Moderate	Partially	Not	n/a
1. Instruction	10	5			
2. Training	8	4	1	1	1
3. Training needs	5	9	1		
4. Workshop	10	5			
5. Overall	8	7			

The second part of the survey asked for reactions. We have included several of the more representational comments:

- "We helped design the course. It was what we needed."

- "We developed a company Mission Statement and are currently finalizing a Quality Assurance Manual."

- "The training provided us with skilled back-up people and upgraded our entire engineering department."

- "Increased overall skill level of this group of employees. They can now answer questions for others. Fewer interruptions for their supervisors; provides greater productivity."

- "The training would not have been affordable otherwise."

- "The availability of these programs is critical to the overall employment picture in Indiana County. While it shouldn't be, cost is a very important element in deciding whether to use training resources or not."

- "Our people had excellent response and felt proud they finished."

We suspect that the responses to the manufacturing surveys might have come in greater number if they had not been sent out during the summer when there is often a decrease in employment, a lull in the manufacturing cycle, or vacationing in progress. We have also included two unsolicited letters from manufacturers in (**Appendix P**) which seem to reflect the general reaction to the project.

CONCLUSIONS

The successful outcomes of the project overshadowed any failures and setbacks that occurred along the way. Both success and failure, however, produced the following list of conclusions and recommendations for those educators who may wish to replicate this project for the benefit of future workers in manufacturing industries.

General Conclusions

The development, implementation, and evaluation of an 18-month effort such as The Cooperative Demonstration Training Program involved many organizations, teachers, managers, and trainees. In retrospect, one can view the interaction between and among the people who participated in the project, and the attempt to build a model for future training programs between vocational schools and private industry as an interesting "tapestry" of successes and failures, strengths and weaknesses, victories and defeats, and accomplishments and setbacks for managers and trainees alike. Clearly, the project was a success for workers who received skill upgrading, for employers who reaped the benefits of their workers' new knowledge, for vocational schools that received additional students and more training dollars, and for Tom O'Brien and Mike Spewock, project co-directors from IUP's Center for Vocational Personnel Preparation.

Experiences from this project have demonstrated that linkages between private sector manufacturers and public secondary vocational schools, post-secondary community colleges, and proprietary schools can result in effective, low-cost, quality training programs for employees who need high-tech training for skill upgrading or retraining for new jobs in the company. This is an important discovery for leaders in both industry and vocational education for the following reasons:

(1) Educational "futurists" predict that secondary vocational schools in America will be faced with restructuring their programs so that high school age students will spend more time "exploring" jobs and developing the communication and computation skills they need to survive in the workplace. An additional two years of schooling will be required to develop the work-related skills that industry needs.

(2) Industrial workers of the future must be prepared to upgrade their skills on a regular basis as automation increases in the factory.

If these predictions are accurate, linkages between public vocational schools and private industry can fulfill the training needs of young adults and in-service manufacturing employees. Programs can be established for industry in the vocational technical schools that allow men and women to gain the additional training they need to upgrade their skills. As high technology continues to grow and challenge industrial workers, such linkages may be the answer to finding continuing education programs for America's industrial workers who are constantly faced with keeping up with the changes in a dynamic workplace. At the same time, however, industry must be willing to help to fund these programs instead of pouring huge sums of money into their own in-house training

sessions. Education provided at the local vo-tech and community college can be the most cost effective method for manufacturers whose employees must stay competitive with workers in Germany, Japan, and Europe throughout the twenty-first century.

Specific conclusions

1. One of the main reasons for the success of the cooperative demonstration training project was that nearly all project administration, training and support personnel were in place and functioning well. Field resource personnel were familiar with educational institutions in their geographic areas, and were personally committed to promoting linkages between industry and education.

2. An effort was made to assure that the cooperative demonstration program was not duplicating adult training services in the six county area.

3. Perceptions of educational institutions changed as a result of this project. In Lawrence County, for example, the project made an important contribution to promoting the image of the county area vocational technical school as an institution committed to education in technological fields and to the needs of local manufacturers.

4. Many manufacturers have shown an interest in future linkages with vo-tech schools now that they are familiar with the resources at the schools.

5. Because of late funding from the U. S. Office of Education, the project did not begin until the end of 1989. Early in the project, a lot of time was spent promoting linkage with SPIRC but that failed. The inability of the project's co-directors to find a suitable project coordinator for the project resulted in an erratic timetable for operating training programs. As a result, Indiana County (because of its close proximity to IUP), received more attention than the other five counties.

6. Because the project did not get fully underway in all six counties from the beginning of the funding year, it was difficult to involve some manufacturers. With only eight months of actual training time available, the development of courses and involvement of workers was not always feasible Manufacturing cycles must be considered in scheduling training. This almost necessitates a two year grant period if funds are to be completely used.

7. A great deal of time and finesse is needed to monitor contracts, memoranda of agreement and purchase orders when working with a university, publis schools and private trade schools. One of the few criticisms about the cooperative demonstration project from participating schools was the long wait for payment for instructors' time, equipment rental, books and materials and so forth. Developing an efficient system for providing quick payment to cooperating schools should be considered one of the most important issues by program coordinators and directors.

8. Know your instructors and their teaching styles. Nothing will destroy an adult student's motivation for going back to school quicker than a "boring" teacher who is an expert in his field but cannot transmit his knowledge effectively to other people. Teachers, presenters, and instructors must also be able to deliver exactly what they promised to deliver to their adult students and their employers. This includes classes that start and finish on time; relevant, job-related instructional materials, and a record of grades and competencies each employee attained as a result of training.

9. Keep good records of all correspondence, purchases, contracts, and fiscal responsibiliites. One of the popular computer "spreadsheet" programs such as Lotus 123, for example, is an excellent tool for keeping track of expenditures.

10. Last, but certainly not least, make sure the project director has a conscientious support staff who have the skills to perform requisite record keeping, word processing and correspondence, and marketing tasks in the field. A committed support staff and an effective management plan that has been designed to handle complex fiscal, personnel and administrative details, and the problems which arise therein.

RECOMMENDATIONS

After implementing the cooperative demonstration training project's activities which led to the achievement of objectives; then evaluating programs which operated in (a) the secondary vo-tech setting, (b) community colleges, and (c) in private trade schools, Michael Spewock and Thomas O'Brien, the project's directors, offered the following recommendations to those people who would attempt to replicate the project.

1. Survey potential industries to determine the training needs of their employees before developing project objectives. A telephone survey will produce this information more quickly than a written survey even though it will consume more time.

2. Make personal visits to offices of personnel managers in private industry to "sell" the training program idea. These people are accustomed to dealing face to face, not via the printed word as is so often the medium of communication in education. Personnel managers receive dozens of advertising brochures in the mail. An informational brochure will probably be overlooked and a potential group of trainees will not be served. The project director must have the ability to meet personnel managers in person and sell quality, low cost training programs to them even though they may be reluctant to invest company dollars in something as abstract as "technical updating" education for employees.

3. When dealing with small companies with fewer than 200 employees, remember that they may not have a person on staff who is solely responsible for training and updating. Advertising, program development, and scheduling should be made with that in mind.

4. Ask employers for permission to meet with the men and women who are going to receive training, and their union representative if they have one. Often, the personal agendas of employees and their perceptions about their need to be trained is quite different from that of the company personnel manager. It is important, therefore, to sell the training program to the workers. Ask them if they will attend school, when they want to attend school, and for how long. Some workers, for example, will not give up their evenings with family or friends. Our experience with summer program offerings indicates that they certainly will not give up their summer vacations for a chance to go to school regardless of incentives like extra income, the possibility of a promotion, or other 'rewards' which may be provided. Encourage employers to recognize those workers who will make the extra effort to upgrade their skills. At the same time, suggest that employers ask instructors for attendance records and test results.

5. A full time project coordinator should be assigned to assume responsibility for the implementation of all the training programs. Such a supervisor will be able to provide uniform program development in each geographic area.

6. Employ a training project coordinator who can "check his/her ego at the office door." This person should be a faculty or staff member from a post-secondary school, college,

or university and must not have a vested interest in the training programs. As third party manager, this individual must be able to place the needs of the industrial clients above his/her own. SERVICE is the key to project success. If the project coordinator cannot accept the axiom that advises that the "customer is always right," even when the customer is often wrong, he or she will not survive the project experience. The coordinator must remain neutral in disputes between schools, trainers, and private sector clients, and have a schedule that is flexible enough to accommodate dozens of meetings with manufacturers and trainers during the course of a training year.

7. Use an advisory committee made up of a project director, vocational school administrators, and personnel managers from participating industries.

8. It is very important that all project personnel meet on a regular basis to keep each other updated on problems and concerns, and failures and success stories. things happening.

9. Try to establish training programs in secondary vocational schools before seeking classes in post-secondary schools like community colleges, private trade schools and 4-year colleges. The linkage with secondary vocational schools will produce the most benefits for the students, the schools, and the industries. Once industry knows that the local "vo-tech" can provide adult training to their employees, they will support the school, serve on its advisory and craft committees, and spend future training dollars there.

10. Avoid holding training classes at a site that requires adult students to travel more than 15 or 20 minutes to class after working an eight hour shift. NEVER hold class at a university or community college where workers are forced to watch a "talking head" for two or three hours after working all day. If a vocational school cannot provide instruction and hands-on training in some high tech topic like statistical process control, fluid power, or solid state motor controllers, find an industrial consultant who will teach class in the workers' factory or at a local hotel. Portable training equipment can be set up on site in these locations.

11. Demand training programs that are competency-based, thereby permitting open-entry and open-exit participation by adult workers who may be working daylight shift, afternoon, swing, and rotation shifts. Make sure you provide "hands-on" training with high-tech equipment in a laboratory where each employee is provided a work station containing his or her OWN machine, tools, and equipment. "Sharing" hardware with one or more other students reduces the effectiveness of training.

12. Make a point to visit training programs while they are in progress. Ask the instructor of each class to allot some time for you to make a short presentation to the adults in the class. It's an excellent time for you to market your program and whet the employees' appetites for more instruction in the future.

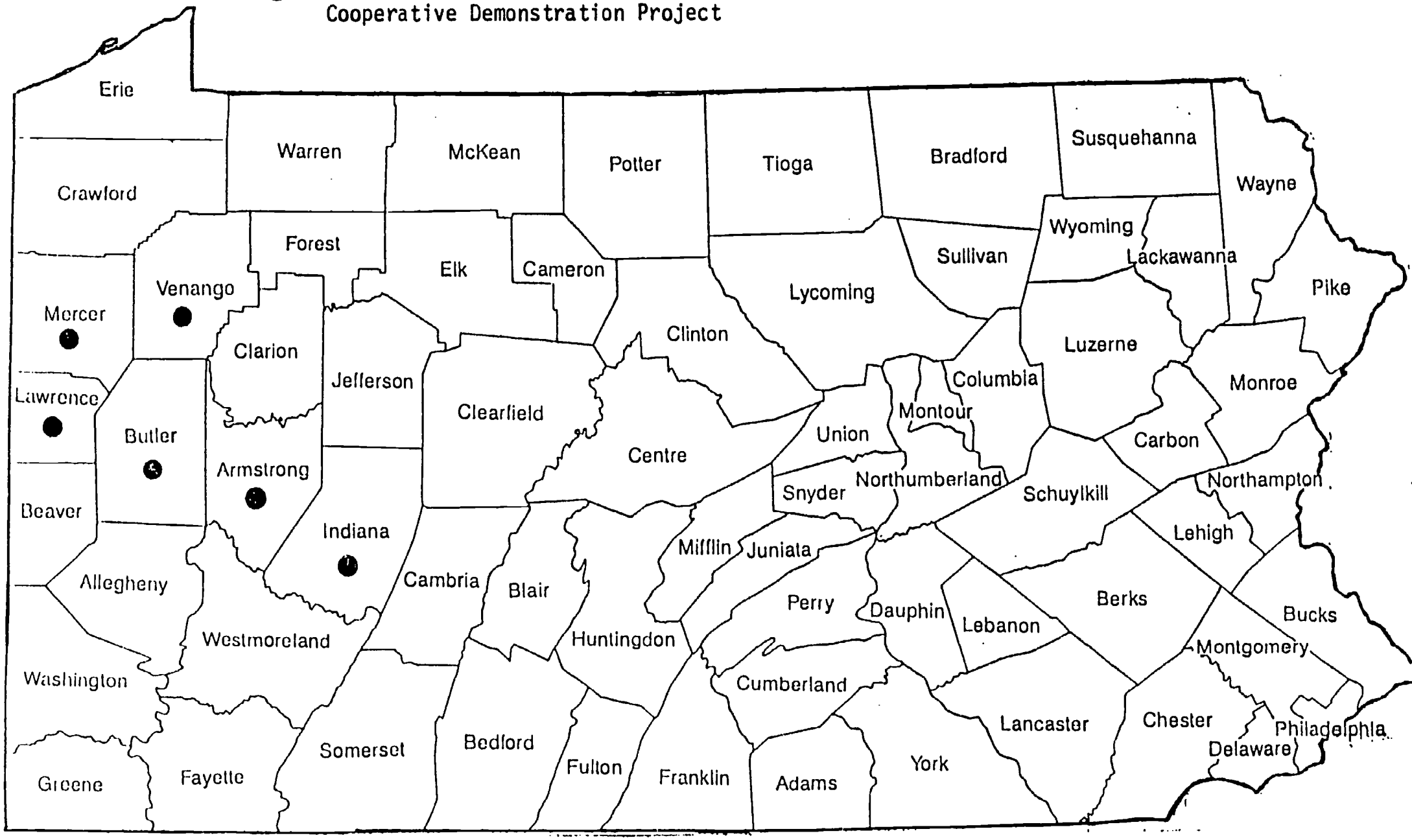
GLOSSARY OF TERMS

AVTS	Area Vocational Technical School
CACIS	Center for Applied Communications & Information Systems
FRP	Field Resource Personnel
IUP	Indiana University of Pennsylvania
PACE	Partners for Armstrong County's Economy
SPIRC	Southwestern Pennsylvania Industrial Resource Center

APPENDICES

APPENDIX	TOPIC
A	map of 6 counties
B	Management and Organization Chart
C	List of Advisory Committee members
D	Letter requesting extension of time
E	Map detailing personnel assigned to 6 county area
F	Letter to AVTS directors asking for resources
G	Manufacturers survey and letter
H	List of actual courses, locations, industries
I	Marketing Materials
J	Compilation of survey responses
K	Instructor letter and survey
L	Evaluation form for course
M	Evaluation results - IAVTS
N	Final survey and letter sent to students
O	Final manufacturing survey and letter
P	Letters from companies

● Denotes the counties served by the Northwestern Pennsylvania Cooperative Demonstration Project



MAP OF 6 COUNTIES

APPENDIX A

(b-ii) Plan of Operation

MANAGEMENT PLAN

The program's management and supervision team will be based at the Center for Vocational Personnel Preparation at Indiana University of Pennsylvania. A field office will be established at the Armstrong county branch campus of IUP at the Center for Applied Communications and Information Systems. Directing the program's operations will be Thomas O'Brien and Michael Spewock. They will work with the program coordinator who, as industrial-education liaison, will be key in meeting all of the program's objectives.

The two directors and the project coordinator will meet twice a month to evaluate program goals and objectives. This team will contact members of postsecondary education training institutions, higher education institutions, private industry, community economic development groups and others in an effort to establish a program advisory board. The structure of the board is shown in Figure 1.

The board will meet on a regular basis and act as a steering committee for the cooperative demonstration program. Input from representatives from each special insterest organization will ensure that the program meets the needs of education and industry in the six county area and will ensure that adults in each county will receive equal and adequate training services.

Figure 1

Management and Organization Chart

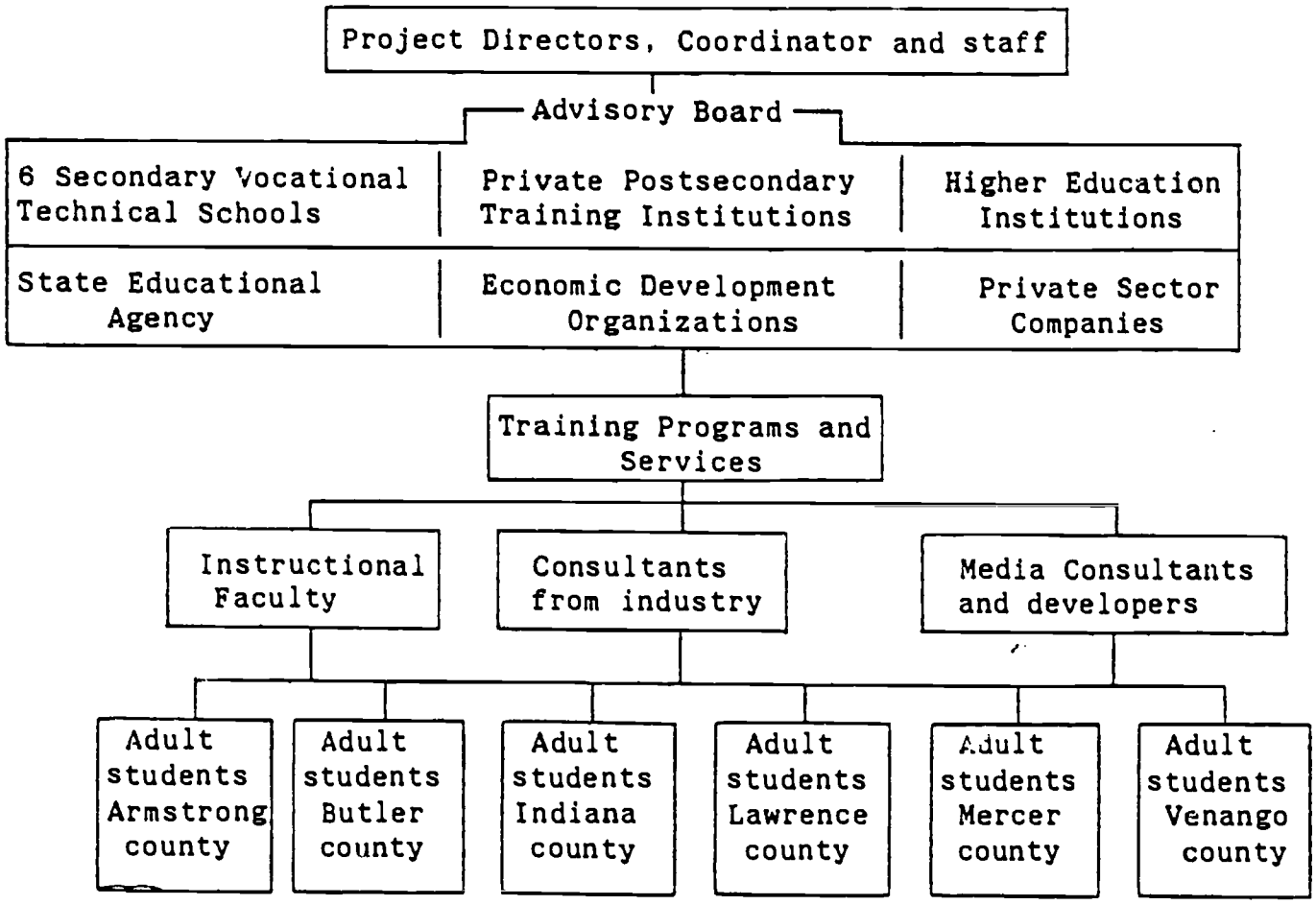


Figure 1
Advisory Committee Members
Cooperative Demonstration Project for Employees of
Manufacturing Industries in Northwestern Pennsylvania

Ms. Martha Lester, Director
Southwestern PA Industrial
Resource Center
Duquesne, PA

Robert Bickerstaff, Director
Clarion County AVTS
P.O. Box 1976
Shippenville, Pennsylvania 16254

Robert Brown, Director
Mercer County AVTS
P.O. Box 152, Rt. #58
Mercer, PA

William Clark, Director
Venango County AVTS
1 Vo-Tech Drive
Oil City, PA 16301

Dr. Frank Como, Director
Center for Applied Communications and Information Systems, 2 Butler Road
Kittanning, Pennsylvania

Barry Denk, Regional Director
CENTECH
P.O. Box 5667
Johnstown, PA 15904

Eugene Malinowski, Director
Manufacturing Services and Dev.
Bishop Boyle Center 120 E. 9th Street, Suite 109
Homestead, PA 15120

William Rupell
Indiana County AVTS
R.D. #3 Box 6A
Hamill Road
Indiana, PA

Arthur Zarone, Director
Butler County AVTS
161 New Castle Road
Butler, PA 16001

Ronald Lester, Vice President
Eljer Manufacturing Co., Inc.
Ford City, Pennsylvania

Rodney Tarr
Educational Director
Joy Manufacturing Co., Inc.
Franklin, Pennsylvania

Mark Brosnahan
FRB Machine Company
College Road Extension
Emlenton, Pennsylvania

Robert DiMarcki, Vice Pres.
Ralph Hiller Hydraulics Co.
Killarney Drive
Pittsburgh, PA

Sam Heckel, Director of Employee Relations
Season-All Inc.
Indiana, PA 15701

[redacted]

IUP

April 19, 1990

Ms. Barbara Saunders
Grants Management Specialist
U.S. Department of Education
Research and Demonstration Branch
400 Maryland Avenue, S.W.
ROB-3 Room 3642
Washington, DC 20202-3845

Dear Ms. Saunders,

I am writing to request an extension for our project entitled, A Cooperative Demonstration Project for Employees of Manufacturing Industries in Northwestern Pennsylvania, Federal Grant #V199A90089.

I am pleased to report that our training programs in high-tech areas have been very successful with people who are attempting to upgrade their jobs or learn new skills in industries in western Pennsylvania. To date, we have been able to register more than 600 employees in training programs such as computer assisted drafting and design, computer-numerical fluid power, statistical process quality control, higher-level mathematics, and electronics.

While many industries in our project area were able to schedule their workers into our fall and spring training seminars, many factories will not be able to release their employees until the summer season--a time of slow production. I would like to request permission, therefore, to extend our training programs beyond the end of this fiscal year (June 30, 1990) so that a maximum number of manufacturing employees can take advantage of training. I feel that we should be able to accomplish this goal by the end of August, 1990.

Our summer programs will operate in western Pennsylvania's county vocational-technical schools, at private technical training centers, and on-site in factories which have installed high-tech equipment. We hope that you will agree to permit us to continue these exciting and important educational workshops.

Please allow me to thank you in advance for considering my request. I will look forward to hearing from you.

Sincerely,

Michael Spewock

Michael Spewock, Ed.D.
Federal Grant Project Co-director

cc: Richard DiCola, Federal Project Supervisor

WASHINGTON, D.C. 20202

GRANTS AND CONTRACTS SERVICE

GRANT AWARD NOTIFICATION

1 RECIPIENT NAME

INDIANA UNIV. OF PENNSYLVANIA
VOCATIONAL PERSONNEL PREPARATION
RESCHINI HOUSE
INDIANA, PA 15705

2 PROJECT TITLE

COOPERATIVE DEMONSTRATION PEROGRAM-NORTHWESTERN PENNSYLVANIA COOPERATIVE DEMONSTRATION PROGRAM

3 PROJECT STAFF

RECIPIENT PROJECT DIRECTOR

Thomas O'Brien 412-357-4434

EDUCATION PROGRAM STAFF

Richard DiCola 202-732-2362

EDUCATION GRANTS STAFF

BARBARA SAUNDERS 202-708-5200

4 AWARD INFORMATION

PR/AWARD NUMBER	V199A90089-89
ACTION NUMBER	01
ACTION TYPE	ADMINISTRATIVE
AWARD TYPE	DISCRETIONARY

5 AWARD PERIODS

BUDGET PERIOD	01/01/89 - 08/31/90
PROJECT PERIOD	01/01/89 - 08/31/90

6 AUTHORIZED FUNDING

BUDGET PERIOD	213,040
PROJECT PERIOD	213,040
RECIPIENT COST SHARE	25%

7 ADMINISTRATIVE INFORMATION

PAYMENT METHOD	ED PMS
ENTITY NUMBER	1-232172299-B5
REGULATIONS	EDGAR, AS APPLICABLE 34 CFR 412

ATTACHMENTS

8 LEGISLATIVE & FISCAL DATA

AUTHORITY: Carl D. Perkins Vocational Education Act of 1984
PROGRAM TITLE: Coop/Demo Program for High Technology Training CFDA 84.199A

9 TERMS AND CONDITIONS OF AWARD

OTHER INFORMATION AFFECTING THIS ACTION IS PROVIDED IN THE ATTACHMENTS SHOWN IN BLOCK 7.

THE RECIPIENT IS REQUIRED TO PAY THE PERCENTAGE OF TOTAL PROJECT COSTS SHOWN IN BLOCK 6.

THE DEPARTMENT OF EDUCATION GRANTS STAFF MEMBER FOR THIS PROJECT IS CHANGED TO THE PERSON NAMED IN BLOCK 3.

THE BUDGET PERIOD FOR THIS PROJECT IS CHANGED TO THE DATES IN BLOCK 5. NO ADDITIONAL FUNDS ARE PROVIDED BY THIS ACTION.

THE PROJECT PERIOD FOR THIS PROJECT IS CHANGED TO THE DATES SHOWN IN BLOCK 5. NO ADDITIONAL FUNDS ARE PROVIDED BY THIS ACTION.

Ver. 2

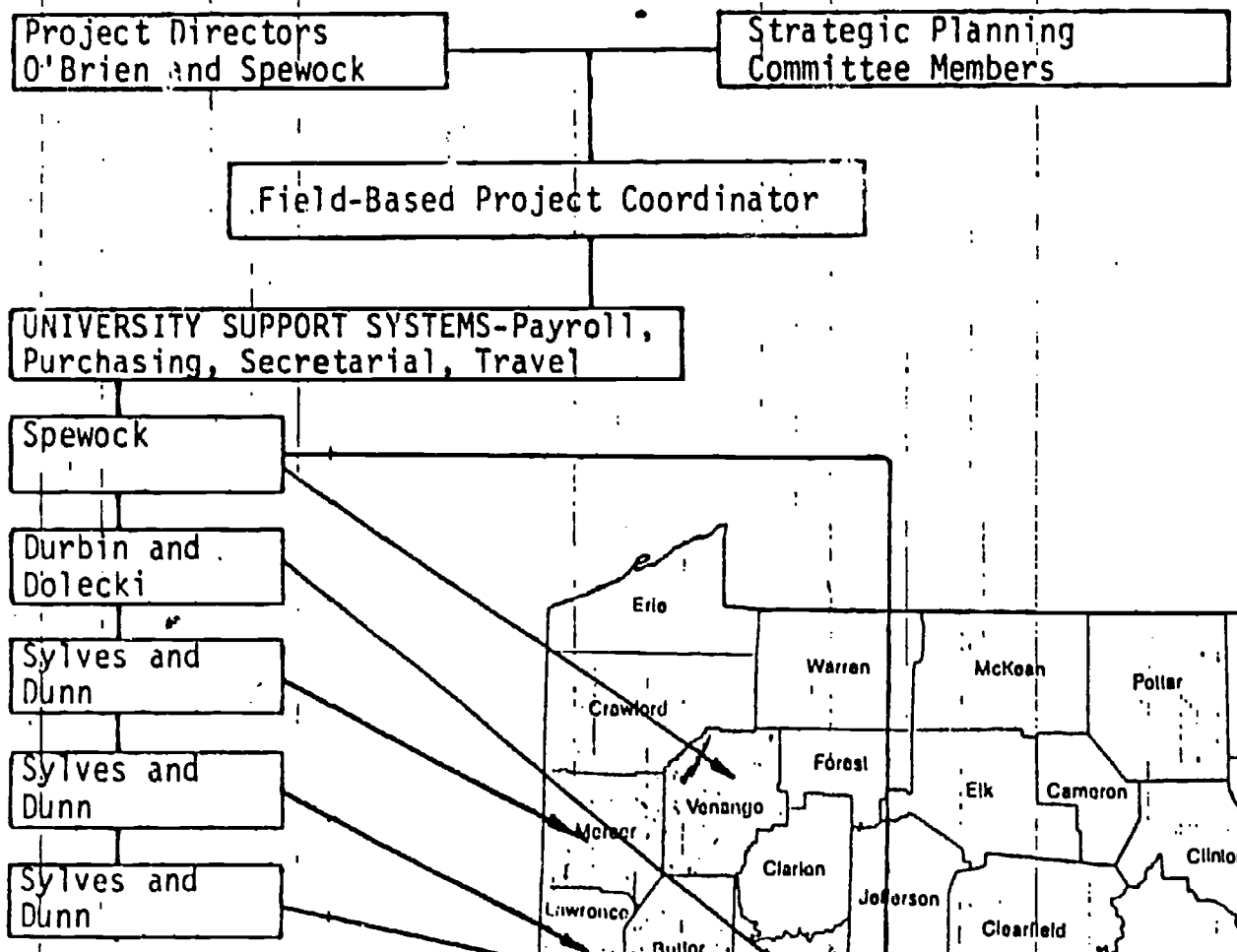
Constance M. Tynes
CONSTANCE TYNES
GRANTS OFFICER

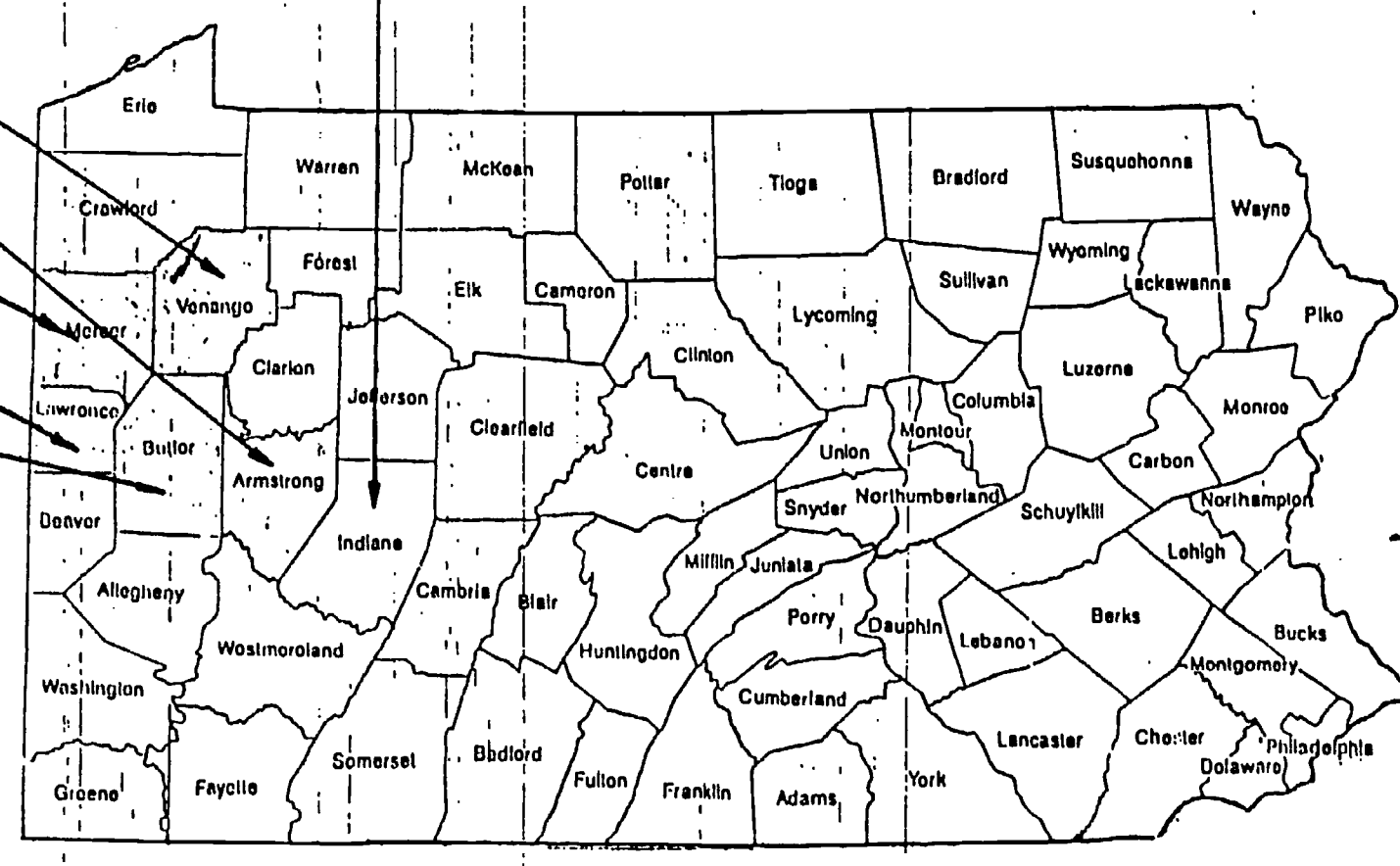
June 21, 1990
DATE

ED - GCS 007 (11/88)

PLEASE SEE OTHER SIDE FOR MORE INFORMATION

Figure 2
Management Plan
Cooperative Demonstration Training Program





MAP DETAILING PERSONNEL ASSIGNED TO 6 COUNTY AREA.

APPENDIX E

IUP letterhead

Date
Name
Address

Dear Director:

Th vocational center at IUP has received a grant from the U. S. Office of Education to provide hi-tech training to incumbent workers in business and industry. A recent survey to manufacturers in western Pennsylvania indicates that they would like to offer training to their employees in a variety of specialized areas.

We would like to invite you to participate as a host school for these training seminars. Training may take place during the day, in the evenings, or on Saturdays. Funds are available to pay instructors, and to purchase classroom and/or laboratory space, teaching materials and supplies.

Please let us know if you would like your school and/or your teaching staff to be included in our plans as we work with industry to develop training programs for their employees. You can do this by completing the attached questionnaire and returning it in the enclosed postage-paid envelope.

Sincerely,

Mike Spewock
Project Director

enclosures (2)

Training Program for Incumbent Workers in the Private Sector

School_____

Name and phone number of the administrator at your school who will work with project personnel to schedule instruction and/or the use of training facilities at your vocational school.

Name_____Title_____

Phone:_____ _____
Area Code Phone

Directions: Please check the appropriate programs, facility and instructor capabilities available for training

Our school will be able to participate in the following training programs requested by industry.

1. / / Computer/Numerical Controlled Machining
/ /lab space / /instructor
2. / / Quality Control
/ /lab space / /instructor
3. / / Just in Time Manufacturing
/ /lab space / /instructor
4. / / Word Processing
/ /lab space / /instructor

5. / / Electricity/Electronics
/ /lab space instructor
6. / / Hydraulics/Pneumatics/Fluidics
/ /lab space / /instructor
7. / / Computer Aided Drafting and Design
/ /lab space / /instructor
8. / / Word Processing
/ /lab space / /instructor

9. / / Bar Coding
/ /lab space / /instructor
10. / / Product Marketing Techniques
lab space / /instructor
11. / / Precision Measuring
/ lab space / /instructor
12. / / MIG/TIG Welding
/ lab space / instructor

/ / Please be advised that our vocational school will not be able to participate in the incumbent worker training program this year.

Center for Applied Communications and Information Systems

CACIS

Armstrong Campus
Indiana University
of Pennsylvania

2 Butler Road
Kittanning, PA 16201
(412) 545-9664

Southwestern Pennsylvania Industrial Resource Centers

SPIRC

One Library Place
Duquesne, PA 15110

(412) 469-3530
(800) 444-2504
FAX: (412) 469-3539

April, 1989

Dear Manufacturer:

The Southwestern Pennsylvania Industrial Resource Centers (SPIRC) is a new organization dedicated to improving the competitive performance of smaller manufacturers. One of nine Industrial Resource Centers established in the Commonwealth, SPIRC provides timely and cost effective services which help individual firms identify, learn about and implement more efficient business philosophies, techniques and manufacturing technologies.

SPIRC can assist you in the following ways:

- Demonstrate how you can adopt new techniques to increase productivity, improve quality, cut costs, and match your competition from abroad
- Aid in analyzing automated industrial processes befor you purchase them
- Assist managers and employees to adapt to new industrial processes and techniques
- Open lines of communication between you and other manufacturers in your field to stimulate discussion of industrial innovation

At present, SPIRC is working with the Vocational Center at Indiana University of Pennsylvania to develop educational programs for smaller manufacturers in both traditional and emerging industries. Our goal is to introduce manufacturers to new production technologies and management techniques, and explain how to incorporate these changes into their operations in a customized, on-site training format.

We invite you to have a cup of coffee on us while you identify the kinds of new technologies and training programs that will best meet the needs of your company. Enclosed is a two-page survey which will take approximately 10 minutes of your time. Please complete the survey, place it in the enclosed, addressed, postage-paid envelope, and drop it in the mail.

Let us thank you in advance for helping us develop an effective program that is beneficial to you and your employees.

Sincerely,

Martha Lester
Managing Director
SPIRC

Thomas O'Brien, Director
Vocational Center, IUP

Frank Como, Director
CACIS

MANUFACTURING SURVEY

Company Name _____ County _____

Address _____ Phone Number _____

Zip _____ Standard Industrial Classification (SIC) Code(s) _____

Facsimile (FAX) Machine Number (if applicable) _____

Products manufactured or produced _____

Name of company representative we may contact _____ Phone _____

Type of business or industry (check all of the following which apply):

( ) machine products
( ) metal products
( ) mine equipment
( ) testing laboratory
Other (specify)_____
( ) tool and die
( ) steel production
( ) energy production
( ) machine shop
( ) rubber production

//

1. Number of employees in your organization _____

2. In which of the following area(s) do you feel training educational updating is needed for your organization?

( ) computer aided drafting/design
( ) robots/robotics
( ) solid state motor controls
( ) computer integrated manufacturing
( ) pneumatics
( ) quality control systems
( ) math/algebra/trigonometry
( ) bar coding
( ) just in time manufacturing
( ) hydraulics/fluidics
( ) computer controlled machines
( ) statistical process control
( ) marketing/sales
( ) desktop publishing
( ) wordprocessing/spreadsheets
( ) other (specify) _____
( ) other (specify) _____

3. What method(s) do you currently use to train your employees or upgrade their skills?

( ) vendors
( ) technical schools
( ) other (specify)_____
( ) community colleges
( ) in-house training

4. Check all the following situation(s) which are occurring in your company.

   a. ( ) Difficult to find new employees with the necessary skills.
   b. ( ) Some employees have a high rate of absenteeism.
   c. ( ) Customer complaints are on the increase.
   d. ( ) The error rate among employees is too high.
   e. ( ) Some employees seem to be disinterested in their jobs.
   f. ( ) Some of my employees don't follow directions well.
   g. ( ) Some employees are not able to follow new procedures.
   h. ( ) Some employees cannot operate new equipment we have installed.

5. Check the basic skill(s) which you think your employees should improve upon.

   a. ( ) reading
   b. ( ) arithmetic/mathematics
   c. ( ) written communications
   d. ( ) oral communications

6. The following group(s) of workers need the most training in my organization.

   a. ( ) new employees
   b. ( ) veteran employees

7. I would prefer that employee training would take place at the following time: (check one)

   a. ( ) evening hours
   b. ( ) Saturday
   c. ( ) seminars during the week

8. Would you like to participate in visits to plants where advanced manufacturing technology is showcased? (yes/no) _____

9. Would you like to participate in training and information forums with other manufacturers? (yes/no) _____

10. What topics would you like to discuss? (specify) _____

    _____

11. Check the following computer system(s) you use.

    a. ( ) IBM Compatible
    b. ( ) Apple
    c. ( ) Modem

If you would like to make written comments or suggestions about training needs not addressed by the survey, please use the back of this sheet.

Thank you for taking time from your busy schedule to respond to our request!

LIST OF TRAINING COURSES, LOCATIONS & INDUSTRIES

Indiana and Armstrong Counties
Training Organization: Indiana County AVTS

Industries Served:

1. Barr Mine Repair, Inc., Commodore
2. Biocontrol Technology, Inc., Indiana
3. Blairsville Machine Products Co., Blairsville
4. C.T.I., Inc., Indiana
5. Fisher Scientific Co., Indiana
6. HMS Industries, Inc., Indiana
7. Indiana Tool and Die Co., Indiana
8. McCreary Tire and Rubber Co., Indiana
9. Metals Conversion Inc., Blairsville
10. National Mine Service Co., Indiana
11. Ocenco Inc., Blairsville
12. PowerSafety International, Homer City
13. Precision Wire Products, Inc., Blairsville
14. Rochester and Pittsburgh Coal Company. Indiana
15. Season-All Industries, Indiana
16. Star Building Systems, Homer City

Classes with number of students registered:

Micro-soft Disk Operating System - 60
Word Processing - 48
LOTUS 123 - 50
Database - 20
Computer Aided Drafting I - 30
Computer Aided Drafting II - 20
Commercial Electronics - 20
Electronics - 24

Training Organization: Powersafety International

Industries Served:

1. Season-All Corp., Indiana
2. Morgantown Machine Company

Classes with number of students registered: Needs Assessment in Electronics and Hydraulics - 15

Butler, Lawrence, and Mercer Counties
Training Organizations: Butler County Community College
and Butler County Area Vo-Tech School

Industry Served: ARMCO

Classes with number of students registered:

Industrial Mathematics - 16
Blueprint Reading - 17
Electricity I - 5
Electricity II - 7
Electricity III - 19
Electricity IV - 11
Electricity V - 15
Electricity VI - 24
Hydraulics I - 3

Industries served:

1. ALY Construction Co., Butler
2. American Glass Research Corporation
3. Saxon Ceramics Company
4. Penn United

Classes with number of students registered: Statistical Process Control and Quality Control - 40

Industry served: American Glass Research
Classes with number of students registered:

Introduction to Micro-Soft Disk Operating System - 24
Introduction to LOTUS - 24
Introduction to DataBase - 24
Introduction to Word Processing - 24
Technical Math - 28
Blueprint Reading - 15

Training Organization: Lawrence County AVTS

Industries served:

1. Universal Rundle
2. Rockwell International

Classes with number of students registered:

DataBase Level III - 10
LOTUS 123 - 3
Electronics - 5
Computer Numerical Controlled Machine Tools - 10

Training Organization: Venango County AVTS

Industries served:

1. Windy Hill Machine Tool Company, Titusville
2. Evenflo Corporation, Oil City

Classes with number of students registered: Electronics I - 11

Training Organization: Harry T. Kerr SKills Center

Industry served: Windy Hill Machine Tool Company, Titusville

Classes with number of students registered:

Computer Numerical controlled machine tools - 9
Machine Vision (DEMO SITE PROGRAM) - 7
Programmable Controllers (DEMO SITE PROGRAM) - 7

Training Organization: Clarion County AVTS

Industry served: FRB Machine Company, Emlenton

Classes with number of students registered: Plane geometry, trigonometry, algebra - 10

TOTAL CLASSES: 33 TOTAL NUMBER OF STUDENTS: 648

APPENDIX I
MARKETING MATERIAL

BROCHURES

- Need Help With: Training? Re-Training? Cross-Training?
  TECHNICAL UPDATING AND TRAINING WORKSHOPS IN FLUID POWER
  Would You Like To Know More About: Hydraulics? Pneumatics? Lubrication?
  Vacuum Systems?

- PUZZLED BY TECHNOLOGY?
  Would You Like Help With: Equipment Selection? Employee Training?
  Problem Solving?

- AN OPPORTUNITY TO ADVANCE YOUR SKILLS
  TECHNICAL UPDATING AND TRAINING WORKSHOPS
  Learn More About: Solid State Controls CNC Operation Computer Systems

- Technical Training Seminar for Industrial Professionals

- Quality Control

- WHAT IS THE CENTER FOR VOCATIONAL PERSONNEL PREPARATION AT IUP?

- High-Tech Training For Advancement and Productivity

SURVEY RESPONSES

SIX COUNTY TARGET AREA

ZIPCODE	COUNTY	MAILED	RETURNED	%
15700's	Indiana	100	6	6.0%
16000's	Butler	227	5	2.2%
16100's	Lawrence/Mercer	282	13	4.6%
16200's	Clarion/Armstrong	60	4	6.0%
16300's	Venango	85	2	2.3%
	TOTALS	727	30	AVG 4.1%

GENERAL INFORMATION/TRENDS

(out of 30 returns)

COMPANY SPECIALITY

20/30 - Machine Shop/Metal Fab
3/30 - Cermaics
2/30 - Electronics
2/30 - Glass Manufacturer

SIZE - # OF EMPLOYEES

12/30 - 0 - 14
12/30 - 15 - 99
6/30 - 100 +

EDUCATIONAL UPDATING NEEDS

40% - Quality Control
33% - Computer controlled machines
25% - Just in time manufacturing
20% - Computer integrated manufacturing
20% - Marketing
15% - Computer aided drafting/design

SURVEY RESPONSES - SPIRC

ALLEGHENY - BEAVER - WESTMORELAND

ZIPCODE	COUNTY	MAILED	RETURNED	%
15000-15300	Allegheny/Beaver	930	27	2.9%
15600's	Westmoreland	420	17	4.0%
	TOTALS	1350	44	AVG 2.8%

GENERAL INFORMATION/TRENDS

(out of 44 returns)

COMPANY SPECIALITY

19/44 - Machine Shop/Metal Fab
13/44 - Speciality Equipment
5/44 - Steel Production
4/44 - Glass/Crystal
3/44 - Window Manufacturer

SIZE - # OF EMPLOYEES

21/44 - 0 - 14
15/44 - 15 - 99
8/44 - 100 +

EDUCATIONAL UPDATING NEEDS

40% - Computer integrated manufacturing
40% - Marketing
38% - Quality Control
36% - Computer aided drafting/design
30% - Computer controlled machines
30% - Wordprocessing
18% - Just in time manufacturing
14% - Bar coding

Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Reschini House
Indiana, Pennsylvania 15705-1087

(412) 357-4434

IUP

1~
2~
3~

Dear 4~:

As an instructor for the technical updating project administered through IUP, you can provide important information for the final evaluation which is currently being written. We want to include reactions and suggestions from as many people who were involved in the project as possible.

The attached survey will be kept confidential; please be specific in your comments. The information which you provide will also help in formulating future funding applications.

Since this report must be finalized quickly, we would appreciate it if you would return your comments within the next week. Thank you.

Sincerely,

Susan McCaffrey
Project Associate

SM:bw

Enclosures

Instructor Survey

Technical Updating Project - IUP

Workshop(s)/Course(s) taught:

Site:

Materials used (availability, etc.):

Meeting place (adequacy):

Enrollment information (availability, accuracy, etc.):

Guidelines for course (were these made clear to you?):

General comments concerning course and participants:

One of the main objectives of this project was to facilitate coordination between private industry and existing educational facilities. Do you feel that your program contributed to this goal?

Further comments:

A COOPERATIVE DEMONSTRATION PROGRAM FOR TECHNICAL TRAINING
IN THE PRIVATE SECTOR IN NORTHWESTERN PENNSYLVANIA

Sponsored by:
United States Office of Vocational and Adult Education and
The Vocational Center at Indiana University of Pennsylvania

EVALUATION FORM

This evaluation form is for the express purpose of developing a more comprehensive course for Adult Education. Please answer the following questions:

Name of course currently enrolled in _____

Training site _____

Was the time requirement adequate? _____

Did you receive what you expected from the course? _____

Did you have the necessary tools? _____

Did you have the necessary material? _____

Did the school have the necessary equipment? _____

Was the time of the course suitable? _____

What would you like to see added to the course? _____

_____

What other courses would you like to see offered? _____

_____

INSTRUCTOR EVALUATION

Rating: 1 - Poor; 2 - Good; 3 - Very Good

Instructor's name _____

Instruction (general) _____

Instructor's knowledge of material covered _____

Instructor's ability to answer questions _____

Further comments about instructor _____

_____

COURSE ADVERTISING

How did you find out about this course?

_____ Word of Mouth _____ Newspaper

_____ Booklet _____ Radio

INDIANA COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL
Summary of the Evaluation Forms

Name of the Courses:	Number of responses:
CAD	1
Word Perfect	6
MS-DOS	54
Lotus 1-2-3	18
NEC Updating	14
Electronics	9
AutoCad	9
Date Base	10
Total	121

Course advertising:	Number:	Percent:
Booklet	13	11%
Word of Mouth	88	73%
Newspaper	9	7%
Radio	0	0%
Letter mailed to Co.	3	2%
No response	7	6%
Other	1	1%

Response to Questions:	Yes	No	No Cost	No Answer
1. Was the tuition cost fair?	74%	0%	26%	
2. Was the time requirement adequate?	84%	3%		8%
3. Did you receive what you expected from the course?	84%	8%		8%
4. Did you have the necessary tools?	95%	1%		4%
5. Did you have the necessary materials?	91%	2%	5% *	2%
6. Did the school have the necessary equipment?	90%	7%		3%
7. Was the time of the course suitable?	90%	4%		6%

* *5% felt that a NEC book was needed also.*

Instructor's Evaluation:

	1-Poor	2-Below Aver.	3-Aver.	4-Above Aver.	5-Superior
1. Overall knowledge	1%	6%	19%	52%	18%
2. Knowlegde of material		2%	18%	42%	35%
3. Ability to answer questions		3%	25%	56%	32%

* *Approximately 5% did not answer these evaluation questions.*

Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Reschini House
Indiana, Pennsylvania 15705-1087

(412) 357-4434

IUP

1~
2~
3~

Dear 4~:

During the past year, you were involved in a training program designed to update your technical skills. The funding for this project will end in August 1990, and we are currently gathering information for a final evaluation which is due at that time.

We are especially interested in your comments concerning the material which was presented during your class. Have you been able to apply this information? Has it increased your effectiveness? Would you like to participate in possible future training programs?

Please take a few minutes to complete the enclosed survey and return it to us within the next week. Your answers will be used both as part of the project evaluation and in future applications for federal training funds. Thank you.

Sincerely,

Susan McCaffrey
Project Associate

SM:bw

Enclosures

Survey

Technical Updating in the Private Sector

Please answer the following questions as completely as possible:

1. Class(es)/workshop(s) taken under this program:

2. Class location:

3. Was the class convenient (time, location)?

4. Were there areas which could have been improved? Was there material which might have been helpful but was not included?

5. How has this training benefitted you?

6. Please include any further comments or suggestions which might be helpful in our evaluation or in applications for future funding.

Thank you for your help!

Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Reschini House
Indiana, Pennsylvania 15705-1087

(412) 357-4434

IUP

July 2, 1990

Mr. Herb Gerhard
National Mine Service Company
795 Old Route 119 North
Indiana, PA 15701

Dear Mr. Gerhard:

Thank you for encouraging your employees to participate in our project entitled, "A Cooperative Demonstration Training Program for Employees of Manufacturing Industries in Northwestern Pennsylvania."

Funding for our project will soon come to an end (August 17, 1990) and we are gathering data to determine our rate of success. As you may recall, the training programs were free to Pennsylvania workers with the stipulation that participating employers would give their written opinion of the effectiveness of the training classes.

To fulfill this requirement, we must ask you to complete the enclosed survey and return it to us no later than one week from today! Please take 10 minutes from your busy schedule, have a cup of coffee on us, and let us know if we were successful in providing high-tech information and skills to your employees.

Your response to the enclosed survey will help us participate in future competitions for training funds for industrial workers in western Pennsylvania. After completing the survey, return it to IUP in the enclosed postage-paid, addressed envelope. Thank you once again for your participation in our project.

Sincerely,

Michael Spewock

Michael A. Spewock, Ed.D.
Project co-director

MAS/gmg

Enclosures

Assessment of Employer Satisfaction with Technical Updating Training

To the employer: Some of your employees have recently received training through a federally funded grant. Please have your training coordinator or personnel supervisor complete the following assessment form. This information will be used to review the success of the program and provide direction for future activities.

Company Name National Mine Service

Address 795 Old Rt 119 North County Indiana

City INDIANA State PA ZIP 15701

Phone 463-7563 FAX

Completed by John LoPACINSKI Title MGR INFO SYSTEMS

Training program title: DOS, DBASE III PLUS, LOTUS 123

Date April - May 1996 Location VO TECH - Indiana

Number of employees who successfully completed the training: 10-20

Directions:

- Please evaluate the training in the areas of effectiveness and usefulness.
- For each of the following statements, check the response which best represents your company's experiences.

How effective was:	very effective	moderately effective	partially effective	not effective	does not apply
1. The instruction in upgrading your employees skills	☐	☑	☐	☐	☐
2. The training in providing your employees with information and skills they could put to immediate use	☑	☐	☐	☐	☐
3. The training in meeting your company's individual needs	☐	☑	☐	☐	☐
4. The workshop in providing retraining of your employees to keep pace with technological changes in your industry	☐	☑	☐	☐	☐
OVERALL RATING FOR EFFECTIVENESS	☐	☑	☐	☐	☐

(over)

Help us evaluate our programs in more detail

1. Describe your employees reaction to the training program:
EFFECTIVE, CONCISE, USER Friendly

2. Was the training appropriate for your needs? If no, how could it have been improved? Some of the manuals were difficult to follow — dBASE III — DOS manual too technical For most non Data-Processing user.

3. Describe how the information and skills gained in training was implemented:
• NOW USING LOTUS 1,2,3
dBASE III plus

4. Describe what equipment, tools, computer hardware/software, etc was installed to utilize employee training. Already had PC's + printers

5. Elaborate on the training's effect on employee efficiency and or company production.

6. If you would like to make any additional comments about the training programs not addressed by this assessment form, please list below.
Excellent training provided to our employees. Taking classes at the Vo-Tech forced us to make time to learn the various subject matter.

Thank you for taking time to assist us with our evaluation, please return in the Business Reply Mail envelope provided.

SERVISTAR Corporation
PO Box 1510 Butler PA 16003 1510
412 283 4567

SERVISTAR.

June 19, 1990

Butler County Community College
Dr. Joan Berry
P.O. Box 1203
Butler, PA 16003-1203

Dear Dr. Berry,

SERVISTAR Corporation recently participated in the Cooperative Demonstration Project for Technical Updating, which was conducted through the Indiana University of Pennsylvania. We had an opportunity to send approximately 96 of our associates to your institution to receive training in various levels and programs of the personal computer.

The program was very successful for us. We heard many positive comments regarding what was taught in the class as well as how the instructor presented the material. Our associates benefited from this opportunity and are now applying their PC experience to their positions.

When I was contacted by Dan Mitchell with regards to this program, our original intent was to have the training be conducted at our outside training firm. We were told, because the company is not located in one of the five counties that was designated to benefit from this program, that we would not be permitted to do this. If we may, we would like our request to be reconsidered for the future programs. I am in no way saying we were dissatisfied with our experience at the Butler County Community College. The course content and instruction by Jan Hutchison was excellent. I am not sure to what extent our request to you can be acted upon, but we would appreciate your assistance if possible.

Your cooperation with SERVISTAR in this program has been outstanding, and we appreciate the use of your facilities for this training. If I can answer any questions for you, please don't hesitate to call.

Sincerely,

Gary Manuel
Recruiting and Training Administrator

cc: Jane Sylvis
Jan Hutchison
Jim Revak
Chuck Rogner

PHONE 898-2990

ALY CONSTRUCTION CO. R.D. #3, VALENCIA, PA. 16059

July 10, 1990

Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Reschini House
Indiana, PA 15705-1087

Re: Cooperative Demonstration Project
for Technical Updating

Dear Ms. Sylves,

We, at Aly Construction Company, want to convey our appreciation for giving us the opportunity to participate in the demonstration project offered at Butler Community College III. Secondly, we want to commend the trainers on a job well done. Mr. Clark and Mr. Vavro were knowledgeable and well versed in the subject matter of quality management. The classroom instruction was conducted to facilitate group participation. The information was clear and concise. Examples illustrated were applicable to the topics covered and easily assimilated. The customized training in our facility was informative, extremely helpful and rewarding. With the direction of Mr. Clark and Mr. Vavro, the foreman and myself developed a Mission Statement and Quality Assurance Manual. The rough draft of our manual was expeditiously reviewed by the trainers and the revisions shall be incorporated into the final copy. We feel this is a real accomplishment and that this task would not have been completed without the guidance of the trainers. The training was valuable and assisted in facilitating more effective communication between myself and the foreman. We commend both you and the trainers for the success of this project. Thank you.

Very truly yours,

Lynn Lanning, V.P.