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ABSTRACT

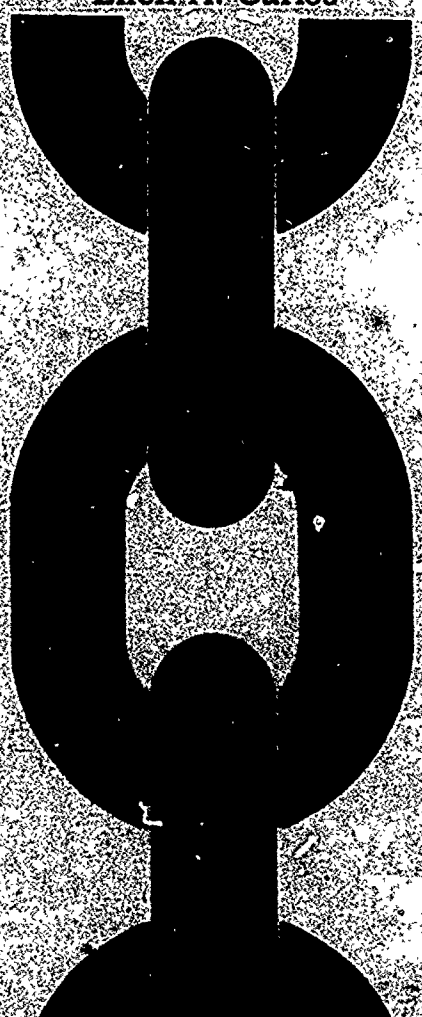
This "how-to" manual provides information and specific strategies for vocational educators who want to become involved in the economic development/job creation process. It is especially designed for the novice business and industry liaison or coordinator. Section 1 outlines the economic development and job creation process and emphasizes vocational education's involvement as a service institution to students (potential employees) and employers. Benefits of economic development are presented. Section 2 focuses on planning for economic development. It deals with assessment of economic development models, model descriptions, and identification of models. Strategies for joining the economic development team or putting a team together are presented, along with a profile of a linking agent. Section 3 focuses on planning an industry training program. It includes parts on types of training programs and instructional methods, budgets, contractual agreements, time-lines, task analyses, curriculum and instructional materials, trainee recruitment, equipment, facilities, placement, program and trainee evaluation, and monitoring. Section 4 highlights federal, state, and local sources of funding and technical assistance. Section 5 is an annotated bibliography to 30 resource publications. Appendixes include case studies of 17 model sites, needs survey, summaries of instructional methods, and sample budget and contract. (YLB)

VOCATIONAL EDUCATORS' HANDBOOK FOR ECONOMIC DEVELOPMENT

By

Krishan K. Paul

Ellen A. Carlos



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Foreword

The Vocational Educators' Handbook for Economic Development is an outgrowth of a project funded by the U.S. Department of Education, Office of Adult and Vocational Education. The project, entitled "A Study to Identify and Promote Linkages Between Vocational Education and Job Creation/Development" is aimed at improving the role of vocational education in the economic development of our communities and states. The project was designed to meet three objectives:

- To conduct a nationwide search to identify and assess innovative vocational education programs that support economic development i.e., job creation/development.
- To disseminate information about the important features and characteristics of selected successful programs.
- To provide technical assistance to encourage the development of new programs, which will expand linkages between vocational education and economic development.

The research conducted for this project has great implications for the field of vocational education and vocational education policy. As we enter a new decade, we look forward to the reauthorization of federal legislation. With this in mind, the role of vocational education in economic development deserves the sort of probing inquiry undertaken in this project.

We believe that this Handbook will be a valuable resource to AVA members and other vocational educators as they consider the role of economic development in their activities. We are especially grateful to the U.S. Department of Education for enabling us to conduct this project, and in so doing, expand our services to AVA members and their partners in economic and community development.

GENE BOTTOMS
Executive Director
American Vocational Association

ACKNOWLEDGEMENTS

In a project of this size, dozens of people besides the staff make significant contributions. The most important guidance on the project was provided by the Advisory Committee for Vocational Education and Economic Development, comprised of representatives of federal agencies, national associations and leaders in vocational education, economics and economic development. A complete list of names and address of members of this committee is shown in Appendix A.

Special thanks go to Richard DiCola, the project officer, and Mary Siebles of the U.S. Department of Education for invaluable advice throughout the research and developmental process resulting in this *Handbook*.

Sincere appreciation goes to Pauline Peverly, University of Illinois, Urbana, who gave much help and information, providing major input into the group of selected readings in Section V.

Seventeen model sites were visited by the staff in an effort to gain better familiarity with the needs of the clients of the *Handbook*. The administration and staff of these sites freely offered their time and expertise when the project staff sought to identify effective linkages and the strategies used to develop such linkages.

The sites included:

Calhoun County Area Vocational Center, Battle Creek, Michigan
Chehalis Indian Reservation, Shelton, Washington
Hostos Community College, New York City, New York
Industrial Services Leadership Development Program, Jackson, Mississippi
Kershaw County Vocational Center, Camden, South Carolina
Keystone Central Vocational Educational Program, Lock Haven, Pennsylvania
Louisiana Industrial Training Program, Baton Rouge, Louisiana
Mid-State Technical Institute, Wisconsin Rapids, Wisconsin
Middlesex Machine Training Program, Hartford, Connecticut
Portland Community College, Portland, Oregon
Pratt and Whitney Industrial Training Program, North Berwick, Maine
Rugby High School Vocational Agribusiness and Natural Resources, Rugby, North Dakota
State Fair Community College, Sedalia, Missouri
State Special Schools for Industrial Training, Stillwater, Oklahoma

Upper Valley Joint Vocational School, Piqua, Ohio
Vision in Action: Media Workshop, Natick, Massachusetts
Westchester County Community College, Westchester, New York

While many people reviewed drafts of the document, the *Handbook* particularly benefitted from the input of Lyle Sorum, training manager for the First Bank System in Minneapolis, Minn.; Beverly Joder, occupational vocational coordinator at the Maricopa County Skill Center, Phoenix, Ariz.; Jan Staggs, executive director of the Illinois Occupational Information Coordinating Council; and Merle Bodine, Wisconsin Board of Vocational, Technical and Adult Education, Madison, Wis. Useful help and information were also provided by Joe Berney, National Alliance of Business, and David Bushnell, Director, Center for Productivity, American University, both in Washington, D.C.

Within the American Vocational Association, much advice and information was received from Gene Bottoms, Roni Posner, Bill West, John Shemick, Vicky Lytle and Jim Vincent. Their suggestions aided in the content and design of the entire *Handbook*.

K.K.P.
and
E.A.C.

VOCATIONAL EDUCATORS' HANDBOOK FOR ECONOMIC DEVELOPMENT

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Introduction

An exciting and challenging role for vocational education is emerging in the final decades of the twentieth century. Beset with economic decline and mounting unemployment, many states and communities are launching extra efforts to revitalize industries and to help businesses to create new jobs. On the other hand, shrinking tax revenues and inflation are taking their toll by reducing budgets for state and local programs. Vocational education, during the 1980's, is being called upon to play a role in industrial revitalization by training an industry's workforce with significantly reduced budgets. And that will be a challenge.

Many states discovered in the 1970's that investments in economic development paid handsome dividends. These states went out of their way to make industry welcome within their jurisdictions. Although the methods used were sometimes highly controversial, the efforts bore results. Starting with textile, furniture and other labor intensive industries, southern states started attracting high technology and capital intensive industries. The trend continued into the late 1970's when, combined with other economic factors such as foreign competition, excessive regulations, and labor problems, the shift to the "Sunbelt" became a major movement on the American industrial scene. Faced with losing industries, jobs and population, the northern states have mounted an extensive effort to counter the challenge from the sunbelt states.

One factor that spelled success for the southern states in their quest for new industries was "customized vocational training." By assuring the new industries that their labor would be trained strictly according to their specifications, these states were able to lure many industries which might not have come otherwise. Customized training has now been institutionalized in many southern states and is finding new advocates in the northern and midwestern states.

Vocational education did not play a leading role in early development of customized training. By the early 1970's, however, vocational education was providing support to economic development, through customized training. In a few states it had even assumed the lead role in providing customized training towards the economic development effort. But in most states, the full potential of vocational education's participation in economic development has not been fully realized.

The extent to which vocational education is involved in economic development is largely up to vocational educators themselves. In states, and even in some communities, where public vocational education willingly collaborated and worked closely with the private sector and other agencies, it proved to be a valuable partner. In other states, where vocational education opted to remain uninvolved; it was bypassed, and other agencies and institutions took over the job of customized training. Those states that did take a chance and developed vocational education customized programs are now in the forefront of the movement which portends to sweep the nation in the 1980's. After all, training will occur. Whether vocational education is a part of it is up to vocational educators to decide.

The Vocational Educators' Handbook for Economic Development is a "how-to" manual designed specifically for the vocational educators who want to become involved in the economic development/job creation process. The content is organized so that the novice business and industry liaison or coordinator can become familiar with the basics of economic development and the role vocational education can logically and effectively assume. The coordinator can then proceed to specific strategies for planning and implementing industry services programs.

The handbook may be used in total or in parts, depending upon the reader's previous experience with specific concepts or depending upon the particular interest or need at any given time. The broad base of information presented, along with the specific strategies, are by no means comprehensive and should not be interpreted as limiting. Rather, they should be viewed as "interest generating" and used as a springboard for customized and creative ideas and solutions to specific problems in individual situations. When working together to improve the "quality of life" for a community, the key actors should be limited only by the range of their innovative abilities to create solutions

Section I outlines the economic development and job creation process and emphasizes the importance of vocational education's involvement as a service institution to both of its client groups: students, (potential employees) and employers. The roles of vocational education and other principle actors are identified, and the benefits of economic development to the general citizenry and participating groups are presented. Section I also highlights the political aspects of the economic development climate. The concept of service to clients is expanded and operationalized.

Section II develops the teamwork approach to the economic development and adapts change theory into action planning. This section deals with assessment of economic development needs, model descriptions and identification of models. Strategies for joining the economic development team or for putting a team together are presented, along with a profile of a linking agent.

Section III goes into the basic ingredients of putting a special services program together from beginning to end. Included are parts on contractual agreements, trainee recruitment, capacity building, public relations, curriculum development, instructor selection, teaching methods, program and trainee evaluation, placement, follow-up and other topics of interest to the linking agent.

Section IV highlights sources of funding and technical assistance, including federal, state and local resource development.

Section V is an annotated list of resource readings easily available and specifically selected because of their practical usefulness to a vocational educator assuming the role of linking agent.

Throughout the handbook, two major themes emerge: service and teamwork. Service to clients through cooperative efforts with the private sector and others in the community is stressed. In economic terms, vocational educators supply skilled workers and the private sector buys (hires) their product. In any well-run business, the producer must forecast consumer needs, and then produce the goods and services demanded in the most cost-effective and efficient manner. The analogy holds for vocational education as well. The best service vocational education can provide the industry is assessing its needs and then training individuals to meet the needs.

Unlike a business, however, vocational education has another client or customer. That is the individual who wants to be trained for a productive and satisfying work life. Meeting the industry needs without sacrificing the interest of the individual is a challenge which vocational educators must face. The handbook provides an insight into the role of vocational education that allows it to serve the industry and individual simultaneously to their mutual benefit.

Successfully assessing and meeting the client needs requires a collaborative effort among many individuals and groups. Since no one group can do it alone, a teamwork approach is essential. And when vocational education's role in the context of economic development is considered, teamwork becomes mandatory. Without teamwork, economic development and job creation will not happen. The *Handbook* illustrates and outlines the strategies that can be used to improve teamwork among individuals and agencies. It emphasizes how vocational educators can play as team members without infringing on other's sensitivities and prerogatives.

Definition of Terms

Agencies refers to all agencies, organizations and groups, public and private, with special interests in training and related services to business

and industry, such as Chambers of Commerce, service organizations and clubs, Job Service, Human Services, industry/education councils, etc.

Client refers to an individual, agency, business or industry which the linking agent serves.

Economic development refers to a set of planned interventions within the normal economic process designed to improve the quality of life in a state or community. This concept will be discussed in great detail in Section I.

Economic development climate is an environment in which businesses and industries feel secure and are encouraged to make new investments.

Industry Services Programs are partnerships among business and industry, vocational education, and agencies which have a delivery system for training and related services such as recruitment, pre-employment assessment or placement.

Infrastructure are the necessary public services to attract and support business enterprise and the consequent growth of population and households, including energy and power, water and sanitation, transportation facilities, police and fire protection services, education, recreation, etc.

In-plant training is instruction that is carried out in an industry's plant or facility.

Job creation is the expansion of work opportunities through the forming of new businesses or the expanding of existing opportunities.

Job development is the change or modification of existing jobs by changing production methods, product lines, or procedures. It may also include expansion of work opportunities by redefining a job description into two or more positions or by convincing an employer that an additional person is needed for some reason.

Job preservation means saving existing work opportunities from extinction or from loss by relocation. "Job creation" will be used to encompass the above two concepts; that is, job development and job preservation.

Linkage is a working relationship between individuals or groups who share a related interest in training.

Linking agent - Business and Industry Liaison or Industry Services Coordinator or Economic Development Coordinator/Director refers to a person who facilitates the formation of linkages among vocational education, business and industry, and agencies.

Resources are people, things and intangibles (time, skill, service and so forth) which can be used to improve linkages or training services to meet the needs of clients. A resource system is an interrelated set of people and organizations capable of providing resources.

Section I

ROLE OF VOCATIONAL EDUCATION IN JOB CREATION

At 7:30 one August evening on the outskirts of Ponca City, a small town in Oklahoma, classes were just getting started in what looked like a large old house. In one of the big rooms the personnel director of a rather large company was explaining company policy and the wage and benefit structure to a group of job seekers. Outside in the atrium, another company official was helping a smaller group of young hopefuls with their application blanks. She was explaining the job opportunities at the company plant, which was scheduled to start production in a few weeks.

No, this was not a scene from an industry recruiting office. It was one of the training programs offered by the Special Schools Division of the Oklahoma Department of Vocational-Technical Education (Vo-Tech). Preparation for the training class described above started several months before when Huffy Corporation decided to locate a bicycle manufacturing plant in Oklahoma At that time, Huffy management entered into an agreement with Vo-Tech to train the labor force at or near the site of their planned plant in Oklahoma. Subsequently, curriculum specialists from Vo-Tech visited the other Huffy plants, had a series of meetings with plant managers, foremen and workers in order to assess specific training needs of the new plant. Armed with the information collected, they designed a curriculum, a plan of instruction and even an assembly line to simulate exact working conditions in the plant, which was already under construction. A large house near the plant was leased and converted into classrooms with active and willing cooperation from Huffy who contributed the training materials and some equipment.

For Ponca City it would mean at least 1,000 new jobs. The Oklahoma economy would be richer by several million dollars in sales, services and related ancillary industries. For Vo-Tech, it would mean successful completion of yet another project. And, for some 800 Oklahomans it would mean well-paying jobs which wouldn't be there but for the efforts of economic development and Vo-Tech.

The scene and the sequence of events described above is repeated hundreds of times each year in a number of states where vocational educators work shoulder to shoulder with economic development officials to increase job opportunities. Methods and key actors may differ from state to state, but they all provide training sources to new and expanding industries at little or no cost to the employer. Most states consider the service as an investment which brings in handsome dividends in terms of new jobs, economic activity and tax revenue.

Examples of states and community investments in training, similar to Oklahoma's, are not difficult to find. In Maine, the Department of Education's investment in training was a part of the deal offered to Pratt and Whitney Aircrafts to establish a plant in Portland. Over a thousand people employed at the plant are generating millions of dollars in wages, business for the local stores and tax revenue for the local and state government. In South Carolina, Louisiana, Wisconsin, Oregon and other states, similar investments are being made by local and state governments to attract new industries and businesses.

Economic development is defined as a planned sequence of programs and activities designed to improve the "quality of life" in a region or community. It is the process of expanding the productive capacity and improving the overall welfare of the citizens (Ledebur, 1977; p. 5; Winnie, 1977; p. 139). Economic growth, which usually means an increase in employment opportunities and earnings, is a necessary and important condition for economic development. However, most economists agree that economic growth produces improvements in health and security, education, recreational opportunities and a host of tangible and intangible qualities that make a community a better place to live and work. Economic development and economic growth are used together with the belief that if economic growth takes place, economic development will follow.

The creation of new employment opportunities is a central theme of all economic development plans or activities. That is why new industries and businesses are so intensively sought by states and communities that millions of dollars are spent by way of advertisements, recruitment efforts and tax incentives every year. All jobs, almost any jobs, are considered worth competing for. However, the most prized jobs are those that:

- Pay, at entry-level positions, higher than minimum wage rate;
- Offer advancement opportunities;
- Are reasonably safe; and
- Provide satisfaction and rewards to those who work hard for them.

Such jobs are often in high technology, chemical, machine building and other capital-intensive industries that require a highly skilled workforce.

In the United States, most of the jobs are created by and in the private sector. Between 1970 and 1979, non-agricultural private-sector jobs

increased at the average rate of 1.5 million jobs a year. The corresponding rate for the public sector was only about 300,000 jobs a year (U.S. Bureau of the Census, 1980). Also, between 1975 and 1979 the growth rate of new job creation has been significantly higher in the private sector, (18 percent as compared with six percent in the public sector). This is one of the reasons that almost all economic development efforts are concentrated in the private sector.

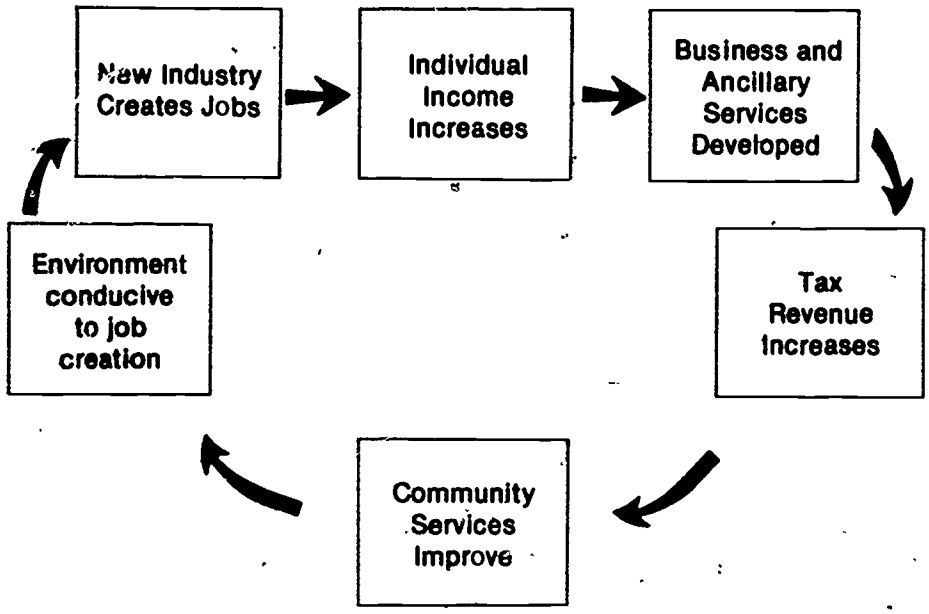
Please note: Federal, state and local investments in planning and preparing for economic development include building and improving the infrastructure (roads, communications, water and sewage treatment plants, etc.) and research. The Economic Development Administration of the U.S. Department of Commerce has granted billions of dollars to state and local governments to "prepare" them for economic growth and development. The Departments of Agriculture, Housing and Urban Development (HUD), Education, Environmental Protection Agency (EPA), and Energy are some of the other departments and agencies which grant funds for building and improving infrastructure. These investments, including the matching funds from state and local budgets, are considered support for economic development.

It has been estimated that a dollar invested in manufacturing generates approximately 14 dollars worth of additional investments and services in a community. Additional investments include ancillary industries and services, services to the workforce, wholesale and retail businesses and public sector jobs such as teachers, policemen, and firemen. Because of the greater effect on local and state economies, competition is concentrated on manufacturing plants rather than on business establishments. And they call it economic development.

Effects of Economic Development

New jobs, higher income for the individuals and higher tax revenues for the local and state governments are the most obvious effects of economic development. Higher taxes for the local and state government usually mean improved services that make living in the community better—essentially improved quality of life. If there were no other constraints, a community that offered better quality of life would attract more businesses and industries, and thus more jobs, creating an ever expanding circle of jobs and community services. Figure I-2 illustrates a simple model of interrelationship of job creation, community services, and economic development. In real life, economic development is neither so simple nor so easy. An industry or a business does not locate its plant because of "conducive environment" only. Other important factors such as market (demand) and the access to the production needs (land and raw

Figure I-1. A Simple Economic Development Model



materials, energy, finance, labor, etc.) set limits on expansion. Other limiting factors on the growth of an area are the physical capacity of infrastructure (land usage, water and sewage plants, buildings, etc.) and the social problems associated with population increase, often a consequence of economic growth. For example, some are growing so fast that the expansion of services has not been able to keep pace with the population increase. The lag between services and the demand on them by the larger population has created an envionment in which not every company would like to locate a new plant.

The Politics of Economic Development

Economic development is both an *economic* and a *political* process, which involves practically every facet of a community. Economic development decisions affect the daily lives of people in and around the community. Choices between manufacturing industries or commercial development, downtown renovation or suburban development, houses or factories, large firms or small firms, attraction of new business or strengthening existing industries are alternatives that are very political in nature. They are made by an established political process deeply rooted in the tradition of the area. Despite seeming differences however, the political process is essentially democratic at the state or local level. Since the

choice to create new jobs requires considerable investments by the community in improving facilities that are attractive to industries, the political system sometimes fails to respond, thus constraining the economic development efforts. On the other hand, a political system that encourages economic development is very attractive to industry. Communities that have built a political constituency for economic development have benefited by attracting new industries and businesses.

The competition for new jobs among communities and states is very keen, because the number of new jobs created each year is limited due to market and economic conditions. Sometimes, even after the best efforts of all concerned, a community or a state can do no more than substitute its own employment with another community's unemployment. However, in the spirit of free enterprise, those involved in economic development do bid against others and offer competitive advantages to industries that are willing to locate within their jurisdictions.

In the highly competitive market of industry recruitment, states do not hesitate to use their political muscle. It is not uncommon to hear or read about a governor visiting a large corporation headquarters or entertaining industry executives in the gubernatorial mansion. State and local legislatures express their appreciation of a new business or industry by offering tax abatements and remissions or by offering facilities and financing at substantially lower than market rates. In exchange for jobs, states offer considerable tax and financial advantages to new industries. Wherever the bargain has been struck, both the industry and the state come out ahead—higher profits for the industry and more jobs for the state's citizens.

Training and Vocational Education

The competition for industries among states and communities is such that the range of financial incentives to new industries has become more or less standardized throughout the country. According to an annual survey of all fifty states published in *Industrial Development*, at least 46 states had some system of offering local and state tax exemptions to new and expanding industries in 1979. In addition, 46 states (not necessarily the same states that offered tax exemptions) offered city or county revenue bond financing to aid industries. From this survey result, it seems that the practice of offering financial and tax abatement aid to new industry is fairly widespread among states. (Industrial development, 1980; pp. 4-5). Some states even offer to match the tax and financial incentives of any competitive state, if the industry would agree to locate a plant within their boundaries. However, industry training is the area where competition is now increasing. Many states have found, (and have used

the knowledge to their advantage) that industry is attracted to communities where suitably trained manpower is available at competitive wages, and routinely offer training assistance to new and expanding industries. The availability of trained workforces has acquired greater importance because of the current shortage of skilled workers in metal trades and high technology occupations. The quality and the extent of training, however, differs considerably from state to state and depends largely on how the service is delivered and who delivers it. Not surprisingly, vocational education plays a role in the delivery of training service in most states.

Some states depend on vocational education agencies and institutions to plan, design, and deliver training services to client industries while others only use vocational education facilities such as schools, machine shops and labs. Whatever the level of participation, vocational education does assist economic development and new job creation.

In states and communities where vocational education plays a more direct role in economic development, vocational education representatives are included in the "marketing" teams that recruit industries. Vocational educators are included because it is considered necessary to assure industry that training service will be provided whenever needed. Georgia, Mississippi, Oklahoma, South Carolina are among the states which use vocational educators as "sales" team members while on industry recruiting missions. Battle Creek, Michigan and Sedalia, Missouri are examples of communities where vocational education is used as an incentive for the industry to locate within their jurisdictions.

In states and communities where vocational education does not play a direct role in marketing, it assists the economic development efforts by providing the pre-employment and classroom training to industrial clients. Louisiana and Tennessee are two such states where the department of economic development assure training service to industrial clients using their own personnel and resources. However, in most cases, the vocational education institutions provide the support network that is essential for delivery of training services.

Existing Industry Service

Retention of existing jobs is another way vocational education is helping economic development. While the competition for new industry plants and businesses is as fierce as ever, states have started realizing the necessity to retain their existing industries. Work done by David Birch (Birch, 1979) and other economists suggests that job creation due to new plants or relocation of industrial plants is small as compared with the new jobs created through expansion of existing industries. When offered

special services, many companies contemplating relocation elsewhere can be dissuaded from doing so. This has been demonstrated successful by many communities, such as Miami County in Ohio and Portage County in Wisconsin.

Providing adequate services to businesses and industries pays dividends in terms of retained jobs. Vocational education and training is one of the most important services offered by communities to the existing industries. Many vocational institutions and some states (Oklahoma, for example) have recently appointed existing industry coordinators to streamline the delivery of training service to industry. Almost all successful programs (see examples in the Appendix) of service to existing industry exhibit a close linkage between vocational education, community colleges and the state and local economic development agencies.

Small Business Assistance

Small business development is an area of economic development that has promise of becoming important for creating new jobs. At this time not many economic development agencies provide adequate services to small businesses or to the self-employed person. The Small Business Administration and Minority-Business Enterprises are the two federal agencies that provide such support. Some states have started support-services to assist small businesses to survive their initial two years, which are the most difficult. Community colleges and more recently vocational-technical institutions have started training services for the benefit of small businesses. The Small Business Encouragement and Rescue Programs in Westchester, New York and Hostos Community College Minority Small Business Assistance Program in Bronx, New York are two such programs that help small business to survive. Staples, Minnesota offers vocational programs to high school and post-secondary students training them to be small business owners or operators. So far, the small business programs are few, but highly successful.

Advantages of Economic Development to Vocational Education

There are a number of advantages economic development programs can offer vocational education. They include:

1. Given the mission of vocational education to train youths and adults for gainful employment in existing or expected job opportunities a logical extension of the mission is to help increase the number and quality of job opportunities for vocational students. The latter is especially true in areas where job opportunities are limited due to economic or social reasons.

2. Increasing the total number of jobs will help vocational institutions to place more students.
3. Participation in economic development efforts will make vocational institutions more responsive to labor market demands.
4. Since the introduction of new industries in a community generally brings in new technology, participation will afford vocational education an opportunity to keep current with the changes in the workforce.
5. Participation in the economic development effort is a politically sound effort. It helps to create a constituency for vocational educators among the business community and the economic develoment agencies, which generally fare well in state and local government.
6. Participation in economic development helps the on-going vocational programs since the capacity to deliver services for industry can also be used to support existing in-school programs.
7. Participation in economic development increases coordination and cooperation with other state and local agencies. This builds better relations within state and local government and within communities.
8. Participation in economic development efforts builds a better image for vocational education and boosts its prestige in the community.

Principal Actors

An amazing number of individuals, agencies, and organizations are included and must work cooperatively to make an impact on the economic growth of a community or a state. The degree of success in economic development is directly proportioned to the degree of coordination among the involved agencies in a state or community. The following is only a partial list of principal actors in the arena of economic development.

1. Governor and State Legislators

As chief executive of a state, the Governor plays a leading role in the economic development efforts. The Governor is principal salesperson for the state and will not hesitate to use the position to influence the decisions of a corporate management. Although it may be possible to have economic development without the Governor's active support, the chief executive's participation makes the task much easier.

Support from the state legislators is one of the key elements of the "economic development climate" so essential for successful job creation and development. Tax and financial incentive packages and liberal budgets for economic development and training programs will not be possible without the backing of state legislators.

2. State and Local Economic Development Agencies

Each state has at least one state-level agency providing leadership for economic development. The agency may be a department of the state government or a division in the governor's office. In either case, one of the major functions of the agency is to coordinate development efforts between state and local agencies. Other functions include research, planning and promotion of business and industry in the state. At the local level, the economic development function is performed by a large variety of agencies both in public and private sectors.

3. Chambers of Commerce and Employer Organizations

Business and industry organizations such as the National Association of Manufacturers, other trade associations, banks and utility companies have a vested interest in the development of their communities and states. Consequently, they work diligently for economic development and job creation.

4. Vocational Education

Although the role of vocational education in economic development is less well-defined in most states than that of individuals and agencies listed in the preceding sections, more and more states are finding it profitable, in terms of economic development results, to utilize vocational institutions and personnel. States such as Georgia, Florida, South Carolina and Oklahoma have established industry training programs that are designed to serve the training needs of new and expanding industries. In these states vocational and technical schools, community and technical colleges and vocational skill centers play a significant role in promoting economic development and attracting new business and industry to their communities.

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Section II

PREPARING FOR INVOLVEMENT IN ECONOMIC DEVELOPMENT

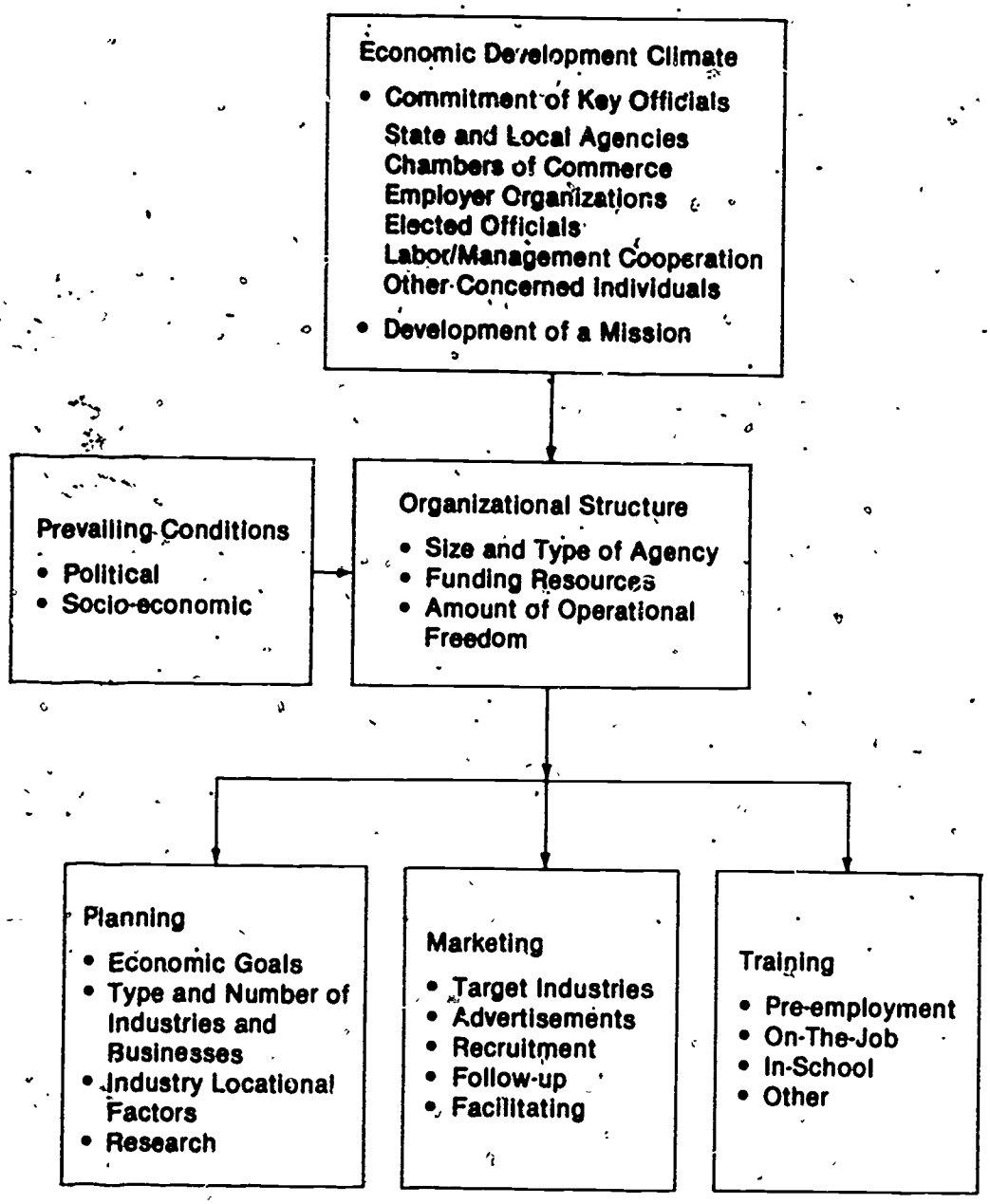
As the preceding section emphasizes, successful economic development programs cannot be planned or implemented in isolation. Even in places where an organization is given a lead role, no single agency, individual state or community can effectively plan or create effective conditions for job creation or economic development in isolation. A variety of public and private agencies, individuals and employers must work as a well-disciplined team to generate conditions where economic development can take place. This section will explore the process of planning for economic development and will examine what role vocational education can play in fostering the pace of economic development in a community or state. Figure II-1 presents the plan for organizing for economic development as described in this paper.

Creating an Economic Development Climate

One of the most important steps in planning for economic development is to establish an economic development climate in the state or community. A positive climate implies a stable political system, reasonable assurance to employers that they will be able to operate their businesses and industries without hinderance or undue harrassment by governmental agencies and individuals. It does not, however, imply that businesses or industries will be freed from their financial obligations or environmental and health regulatory requirements. Essentially, the economic development climate is an invitation to industry to be *equal partners* in the development of the state and the community, with all the privileges and obligations thereof.

A location can have a negative economic development climate just as it can have a positive climate. A recent article in the *Washington Post* (August 16, 1981), cited a survey of business attitudes in the District of Columbia. The survey found that many firms believe that the sales advan-

Figure II-1. Organizing for Economic Development



tages of a strong District market are outweighed by the liabilities of "high rents and taxes, burdensome regulations, parking shortages, excessive workmen's compensation costs and an 'antibusiness attitude' in the city government."

One factor which economic development planners are seldom able to change is the political structure. However, the support of state and local leadership is essential for any successful attempt at economic development. Political leaders can, and do, play a major role in assuring that the relevant public sector agencies work together toward economic development as a common goal. Their budgetary and taxation policies send out signals to both industrial and governmental agencies signifying their interest in economic development. The first step, therefore, for anyone to launch an economic development effort is to develop a constituency and win the support of political leadership both at the state and local level.

The extent to which key actors work together towards the common goal of economic development determines the degree of success they are likely to achieve. Coordinating committees, intra- and inter-government planning committees for economic development, inter-agency staff detailing and executive direction are some of the methods used by state and local governments to break down bureaucratic barriers and to convince public and private agencies to work together for economic development.

Vocational educators have a vested interest in being involved in the economic development planning and implementation. The interest, of course, is their professional obligation to current and potential vocational education students. Every student of vocational education must be assured of a reasonable job opportunity at the completion of training. This commitment remains an empty promise when the number of graduates far exceeds the available job opportunities. However, improved economic activity opens up new job opportunities, thereby increasing the rate of job placement of vocational students. Economic development also allows vocational educators to extend vocational services to out-of-school youths and adults.

The private sector's active participation in the early planning stages of economic development is critical for the achievement of significant results. The private sector is more willing to invest its time and resources if it has participated in planning and policy formulation. Valuable support can be acquired by inviting the private sector to coodination and planning meetings for economic development.

Developing A Mission

The development of a mission or an overall long-range goal for the state or community to achieve is an important part of creating a positive

economic development climate. The mission could be in terms of (1) raising the per capita income of the citizens; (2) bringing about a diversification of economic activity within the area by encouraging new types of industries and businesses, and/or; (3) improving the quality of life by increasing expenditures for social services, education and recreational activities. In terms of actual results, each of the three missions results in a healthier and more diverse economy, with more job opportunities, better income, more taxes for the state and local governments and thus more funds to improve social services, education and recreational facilities. Whatever the mission, the support of citizens in general and state and community leadership in particular must be won. It should gain a concensus to become a mobilizing force for the area.

Legislative support for the mission is not absolutely essential, but it certainly can help to convince different agencies and organizations to adopt the mission. However, neither legislation nor regulation and enforcement will change prevailing attitudes, and economic development will not be achieved unless attitudes change. That is the compelling reason for winning general support for the mission from the leaders and citizens of the states and communities. Change in attitudes can be brought about through education which has an impact on public opinion. A highly targeted media campaign is an effective strategy. Commitment of leadership, rather than legislative mandates, achieves far better results in winning support for economic development, job creation and training.

A relevant mission for vocational education will be a better and more flexible service to existing and new industries. In order to incorporate the mission into classroom programs, the support of the school board members and the craft and general advisory committees must be won. As with the private sector, the members of the board and of advisory committees must be involved in the early planning stages. Approached this way, most members will be willing to support the allocation of resources towards economic development efforts.

Vocational education's mission of service to both students and industry must be emphasized. It underlines vocational education's legislative mandate to train youths and adults for "existing and expected job opportunities." At the same time, the mission of service highlights vocational education's important role in maintaining the economic health of the country. By providing service to the industry and business, some of the imbalance in the supply and demand of highly trained workers could be corrected, resulting in overall efficiency and increased productivity. By encouraging a mission of service to industry among vocational educators at all levels, the economic role of vocational education can be increased in importance without sacrificing the social role (service to students, promo-

tion of social equality, etc.). It can be accomplished by the commitment and dedication of leadership both in and out of vocational education systems.

Organizing for Economic Development

All states and some cities have established agencies for economic development planning and implementation. The organization of these agencies is one of three types: line agency, staff agency or autonomous agency.

Line Agency—An economic development department under a single administrator who holds a cabinet-level position in a state or a department chief in a city. Although a line agency tends to be better coordinated with other agencies, it tends to move away from key policy makers. It also generates some rivalry among state and local departments because it competes with them for the budget dollars.

Staff Agency—Usually located in the governor's (or mayor's) office and responsible for coordinating several economic development activities in line agencies. A staff agency is more vulnerable to political pressures and changes; however, it tends to be close to the policymakers.

Autonomous Agency or a Board—Generally a semi-independent body with many developmental functions managed by an executive officer. The board, or the governing body, is usually composed of several governmental agency heads, and a few private sector representa-

tives nominated by the governor or mayor. This type of organization is generally less vulnerable to political pressure and change, but may be more remote from the chief policymakers.

Any one of the three types of organizations can be adapted to lead the economic development effort in a state or local community. The final selection should depend on political realities and prevailing conditions. Whatever the final selection, the agency will need to be provided with an adequate budget and sufficient personnel to plan and implement effective economic development programs.

Three major functions of economic development are performed, either by the agency designated to do so, or by sharing among the state and local agencies. The three functions are *planning, marketing* and *training.*

Economic development *planning* involves an assessment of state and community needs, the study of existing conditions in different parts of the state, and the setting of targets within the framework of the overall economic goals of the state or community. The function of planning may be entrusted to an agency other than the one responsible for implementing the plans, but close working relationships between planning and implementation must exist if effective results are to be obtained.

The economic development program implementation function can be called *marketing* because it involves "selling" the state or the community to the businesses and industries in order to increase the pace of new investments. Successful economic developers provide the following services to their clients:

- Information about states and communities;
- Assistance in the selection of suitable sites for plant location;
- Assistance to communities to prepare for new industrial plant locations;
- Assistance in obtaining necessary licenses, permits and clearance from regulatory agencies;
- Assistance in preparing financial packages—loans, bonds, etc.;
- Acting as liaison between new industries and communities;
- Acting as liaison with existing industry to provide services similar to those to new industries.

Industry *training* is essentially a guarantee to a prospective business or industrial client that a trained work force will be made available to the industry at little or no cost to the latter. In some states this function is performed by the development agency; in others, it is delegated to the vocational education agency.

Identifying Models of Industry Training Programs

Once you have studied the political and administrative structure vis a vis economic development in the state or community, you may want to

study some models that would best fit your needs. Models in this section relate to industry training programs only and imply the existence of an economic development program either already in place or in an advanced planning stage. Close coordination between economic development and industry training programs is also implied. The models described in the following paragraphs are a classification of existing industry training programs based on the prevalent system of administration and governance of vocational education. Your situation may not match with any of the models, in which case you will have to develop or adapt your own system. In any case, a knowledge of what exists gives you an opportunity to concentrate on a strategy best suited to your needs.

The classification method used to identify the four models determines when, but not who, the following important functions are performed:

- Initial contact with prospective clients and assessment of their needs;
- Design of a training program;
- Planning and delivery including space, instructors and training materials;
- Evaluation and monitoring.

Although possible combinations of the four functions could result in a fairly large number of models, in reality only four types of programs were found to be successful. Over fifty programs were identified by the research program at the AVA, and seventeen of the programs were studied in detail. Case studies of the seventeen programs will be published by the AVA: Brief summaries may be examined in appendix B. The four models are described in the following terms:

1. **The State Control and Delivery Model.**
   One or more of the State agencies (vocational education may or may not be one of them) coordinate, design, deliver, and evaluate the industry training service. In most cases only state funds are used to support the training programs which include selection of training sites, contracting with the clients, hiring instructors and purchasing or leasing training equipment. In some states, local vocational education institutions make their facilities and equipment available and/or participate in the delivery of training services. Responsibility in every case, however, remains with the state agency(s).

   Some of the agencies that deliver services in this classification are economic development agencies, community college boards, commerce, higher education, and, of course, vocational education. Some of the states that follow this pattern are Alabama, Louisiana, Oklahoma and South Carolina.

2. **State and Local Partnership Model.**
   In some states industry training has evolved as a partnership between

state agencies and local educational institutions. The distribution of function could vary, but more common practice is in the following pattern: The state agency is responsible for establishing the first contacts with the prospective clients, assessing their needs and sometimes designing the training program. More often, however, after the initial commitment is made by the client industry, the center of activity shifts to the educational institution nearest to proposed location of new plant or business. All other functions are performed at the local level with only advisory or technical assistance from the state agency. Funding and the responsibility for industry training is based at the state agency and the local institution. Mississippi is probably the most outstanding example of this system of industry training programs.

3. **Local Control and Delivery Model.**
Local institutions in some states play a dominant role in designing and delivering industry training programs. All important functions are performed at the local level. State vocational or other agencies may provide some advisory or technical assistance and may share some of the costs. Responsibility from the initial contacts to the delivery of service rests wholly at the local level. The institutions may be community colleges, area vocational schools or a combination of both. More often, the institutions work in consortium with the local chamber of commerce or some other private sector economic development group or organization.

A number of communities in the country follow this pattern. Some of the more notable examples are Sedalia, Missouri; Battle Creek, Michigan; and Upper Valley Joint Vocational School District in Ohio.

4. **Special Programs Model.**
These are programs that defy classification because they deal with specific populations, (American Indians in the Northwest), or with ad hoc situations, (Essex, Connecticut). There is no set pattern to these programs and they are designed and executed in a variety of ways, though usually a combination of state and local agencies share responsibility. Examples of such programs are scattered throughout the country.

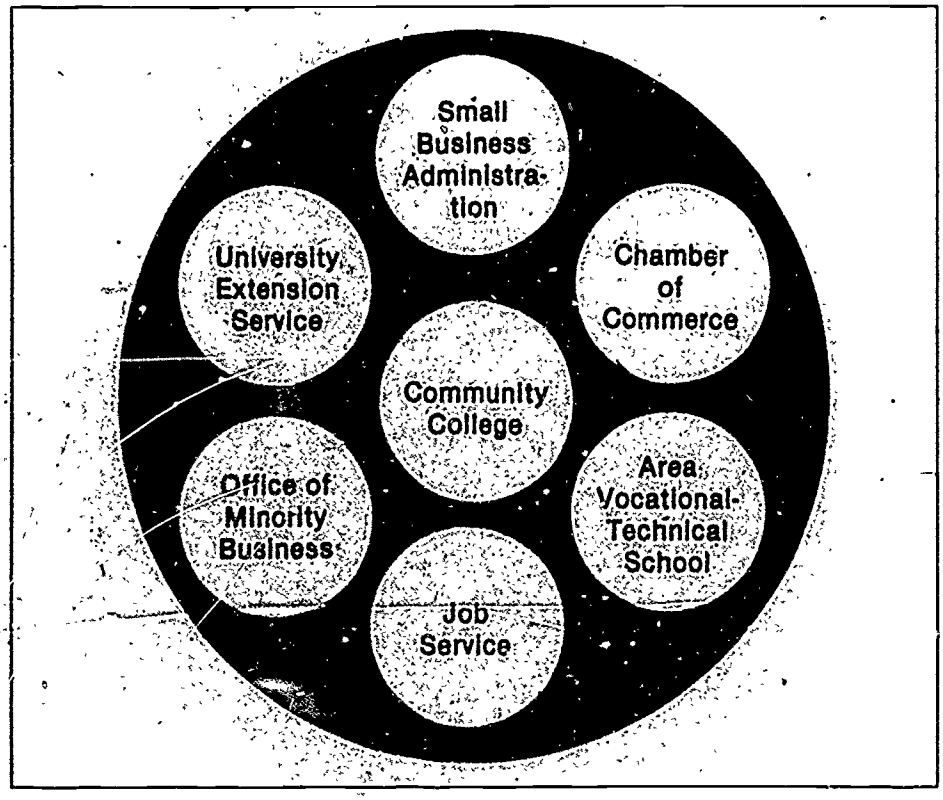
Advantages of the Teamwork Approach to Industry Training

Understanding of available resources and the potential of their combined strengths is one advantage of the teamwork approach to economic development and to training.

The incredible maze of federal, state and local groups, agencies and organizations that have a direct or indirect bearing on industry training is confusing, and often conflicting. Without coordination and cooperation among the principal actors, it is impossible to assess and utilize their capabilities for the common goal of special training programs for employers.

Efficiency is the second important advantage of the teamwork approach. Duplication of services creates an unnecessary drain on declining resources leaving a large area of need unfulfilled. For example, as Figure II-2 illustrates, a community college, a vocational school, the Chamber of Commerce and the Small Business Administration (SBA) and others may each offer courses to help the small business owner in bookkeeping, but none might help the owner with time and money management or appropriate pricing of services to stay in business. In Figure II-2, the large circle represents all needs requiring services; the small circles represent needs being met by services offered by existing organizations; and the dark area represents needs which are not yet being met by existing agencies. Elimination of duplication would free available resources to fill in the gaps in the services offered.

Figure II-2. Services Needed, Services Offered, and Unmet Needs



Accessibility to training so that no special groups needing training are overlooked is a third advantage of teamwork. Teamwork helps eliminate the possibility that whole groups of potential trainees could be missed by every agency, for example, upgrading and retraining of the present work force or displaced homemakers.

Flexibility in the teamwork approach allows team members to do what they do best while making the best use of strengths of each group. This makes it easier to plan the most appropriate training program for the ultimate user.

For the teamwork approach to be effective, one must accept that no agency has the perfect system, but each has something to offer. Consider the following "givens:"

- Each has a role to play in training;
- No one can do the job alone;
- Each has a variety of goals and objectives to meet, some common to the team as a whole, others unique;
- Each has its own set of regulations to follow; and
- Coordination is possible.

Teamwork requires change. People and agencies often resist change, preferring the status quo over the unknown, even when problems are obvious. Therefore, to become an effective team member, one must also become an effective change agent. The basic principles of the change process and the primary roles of the change agent must be understood. The change process and the linking process must be viewed from the vantage point of those who are changing, as well as from the vantage point of the change agent.

The Change Process

The change process begins with the emergence of a problem. The problem is identified and a decision to do something about the problem is made. Some form of needs analysis is performed. A variety of solutions are found, one or more are selected, and a plan is developed and implemented. The last step is evaluation, after which the problem is either solved or the process begins again.

Primary Roles of A Linking Agent

A linking agent can act in any or all of four primary roles: catalyst, solution giver, planner/facilitator and/or resource linker (Havelock, 1973; pp. 8-9).

As a *catalyst,* the linking agent strives to stimulate interest in changing present practices; encourage community involvement in exploration of alternatives and their feelings toward each alternative; overcome the iner-

tia to maintain status quo; prod the system to be less complacent; start working on problems; and encourage those who attempt to change.

In the role of *solution giver,* the linking agent endeavors to solicit ideas from many different sources; provide information about what alternatives are possible; develop solutions to specific problems; determine when and how to offer them; and help the clients adapt the solutions to their needs.

As a *planner/facilitator,* the linking agent assists the clients, as well as other personnel involved in the training program, in recognizing and defining needs; diagnosing problems; setting objectives; acquiring resources; creating solutions; adapting and implementing solutions; and evaluating progress.

The role of *resource linker* requires bringing people and agencies together to aid communication, negotiation and collaboration; finding and making the best use of resources inside and outside of each organization's system; and managing influence and utilizing power.

These primary roles are not mutually exclusive, and can be performed at the same time. The linking agent can be an insider or an outsider. When working within an organization, the agent can be "line" or "staff" and can work from above or below. However, working from below requires more skill. The key is understanding the process, the points of leverage, the most efficient channels and the best times, places and circumstances.

Profile of a Linking Agent

The following is a profile of a linking agent who would bring about change by persuading agencies and individuals to link together for economic development.

Ideally the vocational educator who plays the role of linking agent in the process of economic development and job creation will be a person in a full-time position with a title indicative of the duties performed such as Industrial Education Liaison, Business and Industry Coordinator or Educational Liaison for Economic Development. However, the linking agent function may be filled by the Director of Vocational Education Programs, by administrators with responsibilities more than vocational educatic or by teachers, particularly in small systems.

The following characteristics have been ascribed to vocational educators who have become successful linking agents in industry services programs: self-confident, innovative, cooperative, understanding, dedicated, respectful, enthusiastic, empathetic, responsible, bipartisan, service-oriented, self-starting, multifaceted, patient, realistic, flexible, helpful and tolerant.

To assume the roles of linking agent, such as catalyst, solution giver, planner/facilitator, and/or resource linker, one must have acquired the following skills:

Leadership skills, including administrative and coordinative skills necessary to assume and delegate responsibility, maintain open channels of communication and instill feelings of trust among the key actors.

Broad knowledge base which includes (1) an understanding of the entire economic development process and the roles of all of the key actors, including the role vocational education can play; (2) an understanding of the bureaucratic process and an awareness as to sources of information, equipment, materials, instructors, funds and other resources essential to a successful program; (3) an understanding of the strengths, weaknesses and constraints of each organization involved in training, including vocational education and business and industry; and (4) planning, implementation and evaluation strategies.

Public relation skills to use in (1) dealing with the media; (2) meeting with prospective industry to sell the community; (3) meeting with existing industry to sell the industrial services program; (4) dealing with other agencies offering training and/or resources; (5) selling the idea of industry services to other school personnel, civic organizations and the community at large; and (6) proving that the program is successful and convincing others that it should be continued and even expanded. Of course, each situation demands individualized promotional materials.

Public relations is only one of the many activities with which a successful linking agent must become involved. Figure II-3 is an example of a schedule for a week in the life of a linking agent. It is a composite of activities either described or attended during the model site visits. While every linking agent will not be involved in every activity listed, the schedule does give one an idea of the diversity and complexity of the job.

Vocational educators face several problems which result from the relative newness of the linking agent role and the ambiguity related to it. They have no clear source of identity and even the job title is far from standard. The work is varied and complex. Supervisors do not know how to evaluate performance. They are unique among professionals concerned with economic development in that they are:

1. Looking at the community decision-making process from a human resource development perspective;
2. Concerned with the structure or organization by which the community looks at problems and makes decisions;
3. Knowledgeable about training methods and procedures but not necessarily extremely cognizant of economic development principles and practices;

Figure II-3. A Week in the Life of a Linking Agent

Monday

AM Briefing with superintendent of schools and vocational director

Meet with company interested in training for supervisors

Submit budget revision request for program extension.

PM Lunch with the Council for Meeting Employment Needs

Meet with Comprehensive Employment And Training Act (CETA) director to jointly answer a Request for Proposal (RFP)

Dinner with development team and industrial prospect.

Tuesday

AM Meet with state officials and submit proposal for a retraining program for an existing industry

PM Lunch with state director of vocational education

Meet with State Board of Nursing regarding certification for a non-traditional course for Licensed Practical Nurses

Wednesday

AM Breakfast with executives from area chambers of commerce, utilities, and transportation companies

Monitor and offer help to in-plant training program

Meet with an instructor of in-plant training program to help with lesson plans and instructional methods needed to clarify presentations

PM Luncheon with Rotarians including a short presentation

Meet with training supervisor to plan training program

Meet with a newspaper reporter doing an article about one of the short-term programs for special populations.

Thursday

AM Breakfast with a state senator regarding commitments of the legislature toward a policy of offering training for any need.

Prepare presentation for school board meeting.

PM Meet with chamber executive and Small Business Administration representative to plan workshops for small business owners.

Meet with in-plant instructor and training supervisor to revise a training program that is not operating at its fullest potential.

Attend school board meeting.

Friday

AM Staff meeting with teachers, media specialists, curriculum developers, and other staff to mutually update each other on status of ongoing and upcoming programs.

Lunch and working meeting with union officials to work out contract details to allow training to union members, accommodating the system of bidding for jobs and seniority.

PM Meet Committee of the local Association of Manufacturers to begin to develop a plan for collaboration with the trade association.

Sit in at a craft advisory meeting for the machine trades as they begin to work out a strategy to meet industry's needs for these hard-to-fill jobs.

Develop a survey to aid in evaluating pre-employment training programs.

4. Concerned with the process by which the community defines problems, sets goals, examines alternatives and takes action; and,
5. Concerned with the way the community uses all technical information available.

Action Plans

The process of linking vocational education and economic development consists of two phases and six steps (see Figure II-4). The first phase involves building support for an industrial services program and includes three steps: (1) assess the existing situation; (2) develop a vision of the ideal situation; and (3) develop strategies to move toward the vision. These are accomplished in cooperation with all organizations with a vested interest in training aspects of economic development. The second phase involves the actual delivery of the services and includes three additional steps: (4) undertake capacity building activities; (5) plan, package, and deliver services; and (6) evaluate, maintain and improve programs. These are accomplished within each organization offering some aspect of training services.

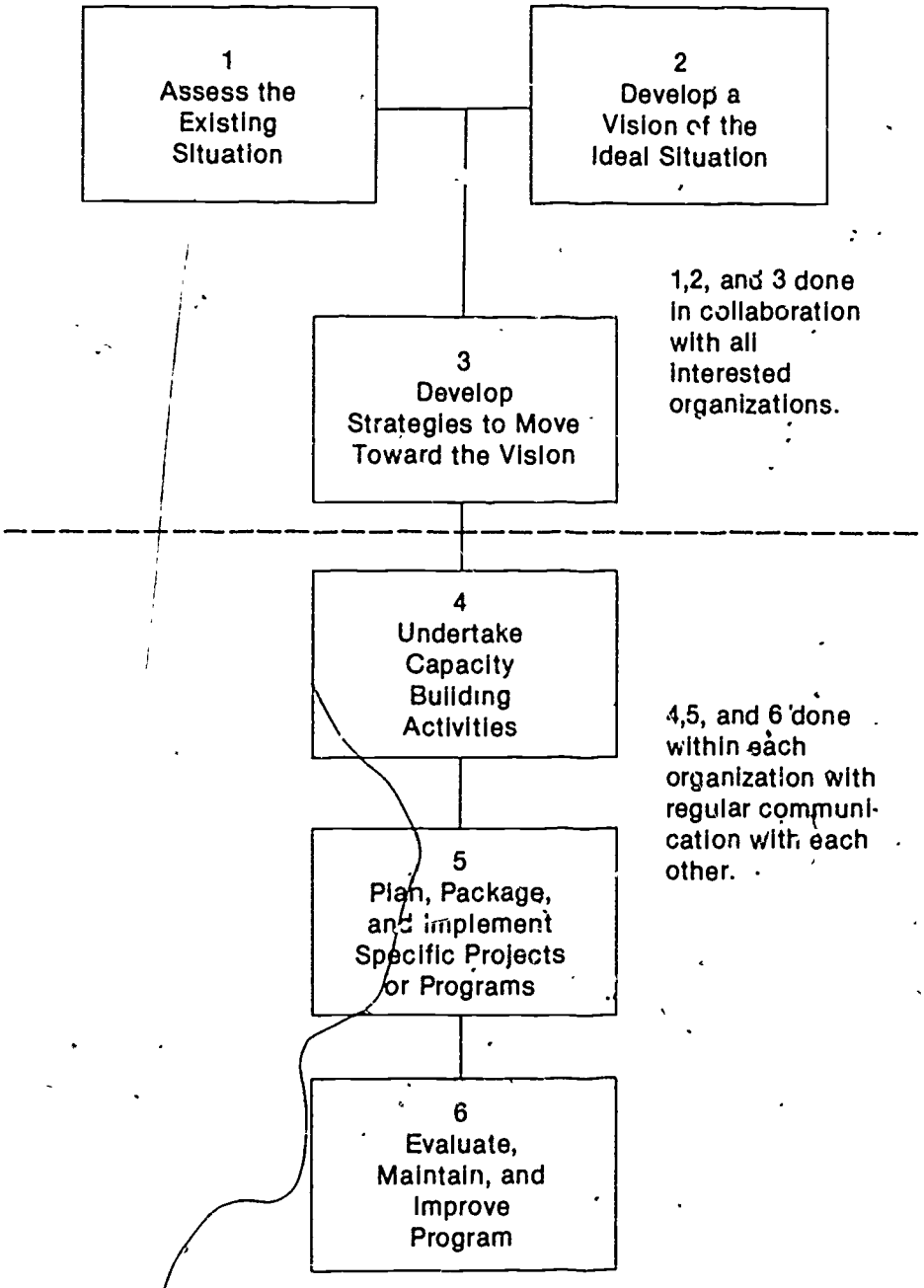
Step 1: Assess the Existing Situation

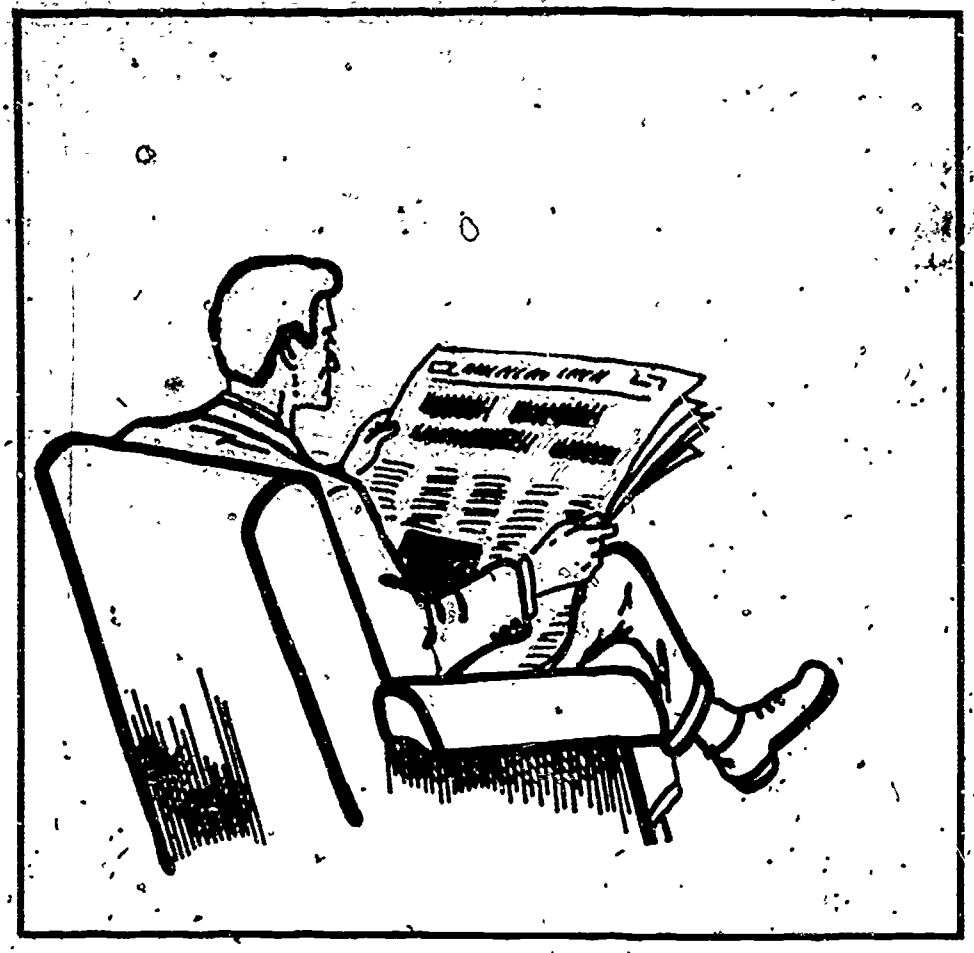
The first step requires the linking agent to embark on a personal awareness program to learn the terminology and to prepare for more intense involvement in the economic development process. The existing situation, related to industry training services, must be determined in its entirety, including the following:

- The economic development/industrial training model for the state;
- Analysis of what exists in the community in terms of policies, problems, opportunities and barriers;
- Procedures, analysis of agency involvement; and, formal and informal power structures.

The linking agent must establish channels of communication directly with local, state and federal agencies and begin learning the ways that each particular bureaucracy operates. At the same time, the linking agent must be developing a general awareness of the local situation, first, by meeting with the administrators and staff of the educational institution, and second, by reading newspapers and reports of economic development groups and Chambers of Commerce in the area. After intra-institutional briefings and meetings, personal contacts should be made with officials from labor unions, business and industry, job service agencies, Comprehensive Employment and Training Act (CETA) officials, human services, other educational institutions, industry/education councils, civic

Figure II-4. Six Steps for Linking Vocational Education and Economic Development for Special Training Services to Business and Industry





organizations, and trade associations as well as elected officials and community leaders.

The meetings should be kept general at first, while a picture of the existing situation is developed and the linking agent's counterparts in other agencies are identified. An open mind is an asset for the linking agent as the relationships among employers, vocational educators and others offering training are explored.

Conducting a survey is a useful strategy for initiating contact with employers, and also for obtaining their input as to their needs and suggested solutions to their training needs. This activity can be sponsored by an interagency council or the vocational institution. (See Appendix C for an example of an employment training and needs survey.) Both the survey and the membership of an interagency council will and must vary with the individual situation.

Step 2: Develop a Vision of the Ideal Situation

After initial contacts are made, the linking agent and his or her counterparts from other agencies should develop a scenario of what could exist under the best possible conditions. These exploratory meetings should be brainstorming sessions out of which a working relationship should develop. Including representatives from all parts of the community will help create a feeling of ownership among the key actors of the program and the community. During the brainstorming, examples of successful programs should be noted for further study.

Communication channels must be kept open and free-flowing at all times. To enhance the chances of this happening, return all calls, answer all correspondence and follow up on all contacts. To further encourage communication, follow through on all accepted responsibilities, treat all contacts fairly and equally and eliminate paperwork as much as possible, maintain a cooperative attitude and express a desire to serve rather than an "I know what's best for you" attitude. Meeting individually with each agency representative to strengthen relationships and to become a face rather than a voice on the phone is the personal dimension on which a successful linking agent operates.

Step 3: Develop Strategies to Move Toward the Vision

Now that it is known what exists and what is possible, the next step is to develop goals, objectives, methods and strategies to bring the two closer together. Again, it is essential that representatives from all groups that have a stake in economic development, especially its training aspects, are involved throughout.

Exchanging seats on planning boards and/or advisory committees, and establishing an interagency council are useful vehicles for communicating on a formal and regular basis. The linking agent should become an active member of an existing council or take steps to initiate a council if none exists. When setting up a council, strategies must be developed to accommodate the variety of goals, objectives, regulations and evaluation mechanisms of each organization. Boundaries of responsibilities should be established and each member should strive to stay within them. In the initial stages, some short term, obtainable goals should be established to provide assurances of success and thus guarantee positive reinforcement for longer term goals.

A goal is the condition which the goal-setters want to bring to pass. Usually a goal is devised to (1) address a specific problem to be overcome; or, (2) fill a void, such as bringing something into existence which was not

previously there. Goals are much like policy statements in that they show the direction in which the goal-setters choose to move. They must reflect the philosophy of the community's citizens and fit their particular vision of what they want their community to become. Without this reflection, the exercise of specifying goals will be fruitless.

Objectives make specific the component actions which will be undertaken to move toward chosen goals. For example, one of the goals might be to "improve industrial training services." Objectives would include:

- Update existing pre-employment secondary and adult vocational programs;
- Collaborate with employers and agencies to develop new vocational programs to meet the specific needs of new and existing employers; and,
- improve job information dissemination.

Objectives must be realistic and achievable. They must be specific and comprehensible (for example, if these objectives were given to another person to implement, could that person determine what should be done?). The objectives should reflect the most imaginative and creative thought available to the community.

When selecting goals and objectives, the needs of the community, as well as the related social and economic benefits and costs, must be considered.

When an objective conflicts with another objective or goal, the community must choose among alternatives and eliminate that objective which is less important, contributes less toward furthering a goal or supports a less important goal.

Methods and Strategies make the foundation laid by the objectives more specific so that projects and programs can be instituted. That is, the amount, location and timing of achievement anticipated for each objective are specified. Resources must be inventoried and commitments made. Whatever projects are proposed must be completed in a reasonable amount of time and then be matched with (1) available resources; (2) supplemental resources which can reasonably be expected from the state and/or federal government; or (3) other resources diverted from current applications to the proposed applications.

Some methods and strategies for the following objective might include:

"Collaborate with employers and agencies to develop new vocational programs for new and existing employers."

1. *Strategy*: Establish a formal structure for communicating with employers and agencies.
   Method: Create an interagency council to meet on a regular basis.
   Method: Develop a needs survey and interview guide for use with employers and agency personnel.

2. *Strategy*: Develop an inventory of available resources.
   Method: Make contact with appropriate local, state and federal agencies.
   Method: Maintain an up-to-date file of resource people, materials and funding sources available from each agency or employer.
3. *Strategy*: Offer training services.
   Method: Based on client needs and available resources, develop a list of training services which could be delivered.
   Method: Develop a campaign to outline the training services.

Step 4: Capacity Building Activities

After developing strategies for improved industrial services, each entity must develop planning techniques and capacity building mechanisms so it will be ready to fill its accepted obligations when the time comes. For vocational education, capacity means physical possibilities, personnel, curriculum, equipment, supplies, financial resources and other necessities for successful training services. The vocational educator as a linking agent must develop cooperative relationships throughout the organization. Intra-institutional help will be needed to inventory facilities, equipment, funds, expertise, support services, and so forth in the system and can help identify those resources made available by the system. This cooperation will be essential in maintaining the delivery system for jobs that already exist as well as in providing support for the new services that will be offered through the institution and the new program.

When instructors are allowed some authority to respond directly to many of industry's needs, and when they are given direct access to the employer, they become an invaluable extension of the linking agent's role.

An active advisory council, representative of the community and business and industry, helps a linking agent expand the capacity of an industry services program. Again, active involvement breeds a spirit of ownership.

Step 5: Plan, Package and Implement Specific Projects or Programs

Planning, packaging, implementing and evaluating special services to business and industry is the heart of a successful program and is covered in detail in the next section of this handbook. Included are parts on contractual agreements, trainee recruitment, capacity building, public relations, curriculum development, instructor selection, teaching methods, program and trainee evaluation, placement, follow-up and other topics of interest to the linking agent.

Step 6: Evaluate, Maintain and Improve the Program

Once an industry services program is operating successfully, the linking agent's responsibilities turn to maintaining and improving the system. Communication channels must remain open, contacts must be renewed periodically, employers must be surveyed to ensure their needs continue to be met and key actors must be briefed regularly. Formal and informal follow-up studies must be done to assure quality of the programs and as an accountability measure.

The most successful programs have been able to maintain stability within the staff which assures consistent and high quality performance. These programs have also set high standards and met them.

A system of rewards and recognition has proven to be an asset. Recognizing a job well done and publicizing that fact goes a long way toward strengthening relationships and assuring that the program is considered an essential part of the community's education system.

Summary

When planning for involvement in economic development through services for business and industry, the linking agent should do the following:

- Help create a positive climate for overall economic development within the existing structure;
- Utilize a teamwork approach to provide services;
- Develop an action plan
  - —analyze existing situation
  - —compare with ideal situation
  - —develop alternatives to bring the two together
  - —build capacity
  - —plan and deliver special services
  - —evaluate, maintain, and improve program.

Havelock, R.G. *The change agent's guide to innovation in education.* Educational Technology Publications: Englewood Cliffs, New Jersey, 1973.

Planning Industry Training Programs

Section III.

Section III

PLANNING INDUSTRY TRAINING PROGRAMS

Some time after your community or state has decided to actively plan and work for economic development, the time will come when a business or an industry takes you up on your offer to serve. It may be a new industry or an existing industry that is expanding. This section deals with preparing you for that moment. We will explore the sequence and procedures of setting up training programs and delivering them to the client companies.

Overall Plan

One of the first tasks to be performed by a training institution or its liaison, when approached by industry or an economic development agency, is to develop an initial framework for production and training schedules.* This will give a general picture of the total operating process; the tasks to be performed, the material and supplies needed, the tools and equipment required, the skills and knowledge desired, projections of resources needed, job classifications involved, company information, rationale for training, and description of the training needs. All should be part of the total plan.

This plan will help determine the extent to which training can be provided by the education agency, and the nature and kind of company resources that would be available. The plan will also determine resources needed by state and local education agencies in providing services to industry. The plan, in essence, will provide a blueprint for carrying out the training program.

Among the information needed will be the company history; product information; expansion or new site plans; plant organizational and product flow charts; job descriptions; overview of production processes; tools, equipment and supplies needed for training; resources available; resources needed; numbers of workers needed in each job category;

*The authors are indebted to Mississippi State University for many of the ideas expressed in this section. For further information, we suggest you read *Industry Services Leadership Development Models*, published by Mississippi State University, 1976.

workers available in local area; personal characteristics required of prospective employees; educational level required; levels of competencies required of prospective employees; prerequisite skills; and the security, stability, comfort and challenge offered by the company to its prospective employees.

Types of Training Programs and Instructional Methods

In the early stages of planning an industry training program, the training administrator and company representative must decide on the type of training, the program set-up and the method(s) of instruction. Among the most common types of industrial training programs are:

- **Pre-employment**—trainees attend instructional classes on their own time, usually without compensation, without a firm commitment of a job, without obligation to accept a job and without any cost to the trainee or the company.
- **Up-grading**—students attend on their own time or in some cases on company time. This type of training is usually provided to current employees of a company to up-grade their skills. Quality control, expansion, normal growth, or adaptation to technological change are all good reasons to offer industry training. The programs are often short-term with tight target dates and small groups of trainees.
- **Post employment**—The training is usually conducted in or near the company plant but in classrooms and labs separate from the regular production facilities. Trainees are hired before participating in this type of training.
- **Apprenticeship**—Requires a great commitment on the part of the student and the client company, since this type of training takes several years to complete. Usually, the related theoretical instruction is provided by the participating educational institution and the work experience is provided by the company.
- **In-plant or on the job training**—Occurs while the trainee is working, sometimes in production work. Instruction is usually provided by an in-plant instructor or a company employee.
- **Entrepreneurial**—Provided to existing or aspiring business people, the trainees often need individualized instructional methods to solve specific problems. The instructor must have access to a wide variety of resources and be available at odd times. Entrepreneurial training is usually suitable only for existing small business owners or those who contemplate owning their own small businesses.

The type of training selected will often dictate the format of the program, which will in turn determine the instructional methods. (See

Appendix D). Program formats are group-paced, individual learner-paced or a combination of the two.

Group-paced instruction assumes that all learners need all the information and need to learn all the skills in the curriculum. The methods chosen may include demonstration, discussion, performance, lecture and recitation. Group-paced instruction is most often used in pre-employment and post-employment training and in classroom instruction for apprenticeship programs.

Learner-paced instruction assumes not all the trainees need all the information and do not need to learn all the skills. The learner takes some responsibility for identifying the knowledge and skills needed. The methods appropriate for learner-paced instruction include programmed self-instruction, independent study, peer training, simulation and performance. Learner-paced instruction is most often used in up-grading, on-the-job training or in the lab part of apprenticeship training.

When choosing instructional methods and types of training, you must keep the following factors in mind:

1. The training must meet the needs of the trainee and conform to company specifications;
2. The training must be in harmony with the resources available so as to keep the cost to a minimum; and,
3. The program must make the best use of instructional time.

Other considerations must include the complexity and nature of the training; elements of time, tools, supplies and equipment; facility availability; qualified instructors and trainee availability; screening of potential trainees; and the availability of instructional materials.

The types of instructional media selected should compliment and support the training method adopted. Types of media include audio/visual, simulation, print and visual aids. Many of these require special equipment and skills to produce or use. To ensure the smooth operation of the instructional program, the industry training program must assist the instructor to become proficient in the use of both methods and media.

Budgets

The development of a well-organized budget with factual, realistic information and data is an essential planning tool. Efficient use of resources is in the best interest of any training program. The training administrator is usually responsible for budget preparation. The budget is reviewed by the client company, the local director or superintendent of the training institution, and any federal, state or local agencies providing

funds or other support. The curriculum developers and instructors should be consulted for lists of their needs. Final approval must be obtained from the funding sources, often the state director of vocational education or the director of industrial services.

The major categories which should be included in the budget are:

- **Cost of facilities**—Rent or cost of building or renovating; utilities, including installation requirements; and the cost of meeting Occupational Safety and Health Administration (OSHA) and other safety and health requirements.
- **Administrative costs**—Salaries of administrators and coordinators; staff travel to visit client and parent companies, visits to training sites, and to state and local agencies; testing and counseling of applicants; cost of office space, office supplies and supporting materials.
- **Staff costs**—Salaries for instructors, secretaries and curriculum and media specialists, including fringe benefits.
- **Instructional costs**—Major and minor equipment, tools, materials, and supplies; their transportation and set-up costs: training simulation equipment; and printing and media supplies.

The budget should be broken down according to basic categories and detailed prices and costs given, rather than lump sum amounts. All data such as major items, quantities, descriptions and total costs, should be recorded as accurately as possible. Whenever possible, relate the current budget to previous budgets, comparing prices and explaining differences. State the request clearly, use charts and graphs for clarification, keep the presentation simple and substantiate line items with supportive materials, including methods used for calculating costs. Avoid trivial items. (A sample budget format is included in Appendix E.)

When submitting the budget for approval, include a statement on the aims of the program and present evidence that the program is progressive. That is, show that there is economic value in industrial development, that the program is needed as noted in accompanying letters and testimonials, that the personnel were carefully selected and that the program will improve efficiency and productivity. Follow up the request with a visit or phone call to supply additional materials and to clarify misconceptions.

Training Agreements

A written agreement is not always appropriate for some industrial services programs, but whenever possible a written agreement of understanding between the company and the training administrator should be obtained. The necessity and the degree of formality will have to be determined by the liaison person or by the policies of the educational institu-

tion or client company. In any case, the training institution and the client company must come to some formal or informal agreement which should detail, among other things, the following:

- **Instructional staff**—Who is responsible for selecting, hiring, paying and training the instructors? What are the wage or salary levels and what are the reimbursement procedures? How much involvement will the instructor have in developing curriculum and training materials? How will the instructor be evaluated?
- **Trainees**—How many persons will be trained and who will recruit and/or screen them? Information on sponsoring agency, tuition requirements (if any), insurance and liability, workmen's compensation (if applicable), tests and assessments, termination criteria, obligations of trainees to prospective employer or vice versa (if any) should also be a part of this section.
- **Schedule**—When will the training start and when will it end? In case there are more than one sections or grades, time-lines of each should be specified.
- **Physical facilities**—Who will provide the facilities for the training program? Who will be responsible for renovations, utilities, classrooms and work stations?
- **Equipment**—Who is responsible for selecting, obtaining, transporting, and installing special equipment for training purposes? Who will assume maintenance responsibilities? Who will design equipment layouts and floor plans? May the equipment be used to produce items that will eventually be sold? What will happen to the equipment when the program is terminated? Who will assume responsibility for the loading, unloading, transporting, and storage after the closing? The liaison or training institution should make a list of equipment available to industry for training, monitor the use of the equipment to insure use conforms to agreements, and make the equipment available for a specified amount of time. The client company must agree that the equipment provided by the state or the training institution is public property and is on loan to industry for training purposes only, that the equipment is to be utilized only during the training period, that it is to be freed immediately when the training ends, and that a representative of the training institution will have free access to monitor the use of equipment for training purposes.
- **Supplies**—Who is responsible for selecting, purchasing, handling inventory, and storing supplies? Will the client company provide the supplies at cost?
- **Other factors** to consider for inclusion in agreements—Will the client company allow and assist in trainee follow up? May trainees

be interviewed during and after training? May photographs and videotapes be made of work stations? Will the company provide a qualified consultant during the planning, implementation and evaluation of the program? May the training institution and the state vocational education division use the program in advertising campaigns? Will the company provide the liaison with a letter as to the success of the program? Who will do the necessary paperwork to obtain reimbursement for the training program?

Agreements should consist of facts written in as few words as possible, easily interpreted, highly visible and easily retained. The responsibilities of all parties concerned should be thoroughly described in clear, concise and unambiguous language, with the time and cost factors for each responsibility clearly identified. (See Appendix F for a sample contract).

Time-Lines

Realistic time-lines and start up dates, jointly developed and approved by all parties concerned, are essential to the success of industry training programs. The key actors in time-line development will most likely include representatives from the client company, curriculum specialists, the liaison from the local training institution, the state industrial services coordinator, representatives from the state and local employment service and representatives from all other agencies and organizations contributing to the specific training program.

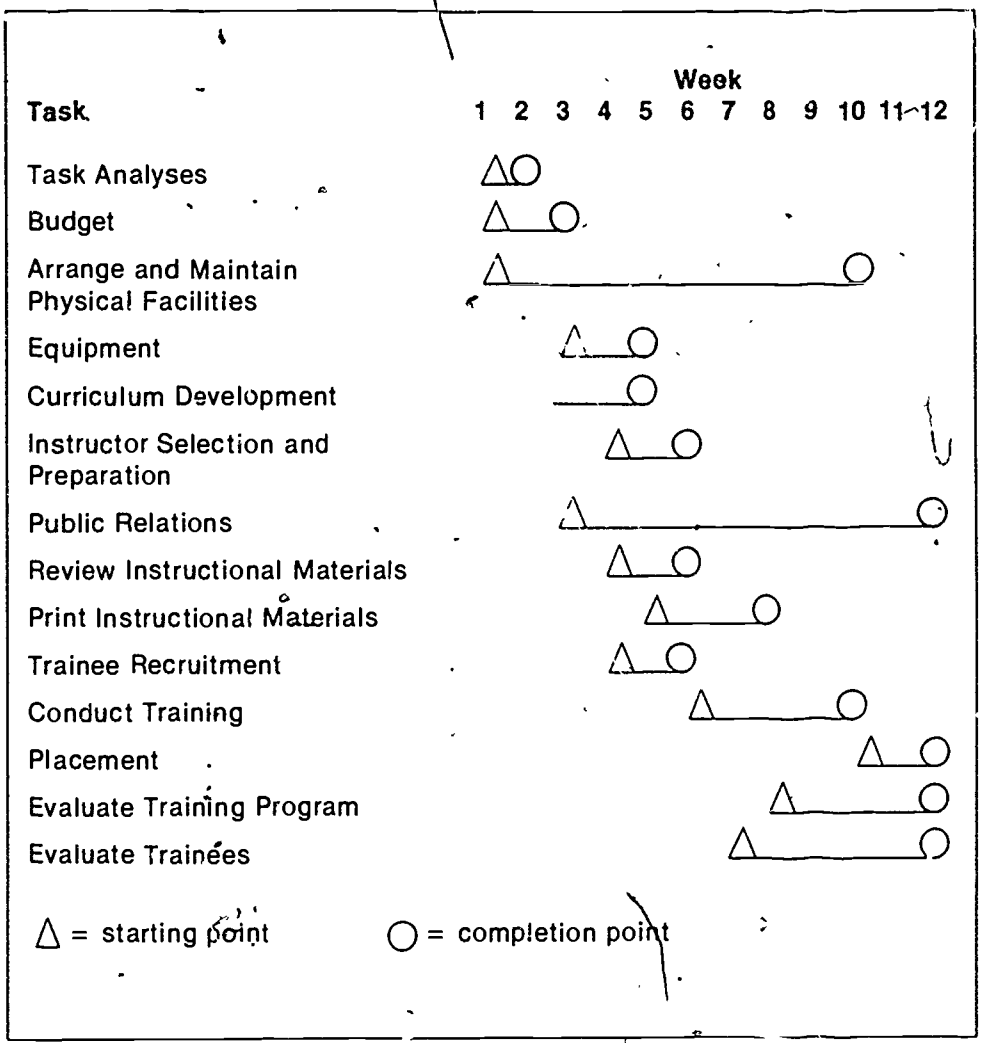
The final schedule should detail various activities to be accomplished and when and by whom the activities must be started and completed (See Figure III-1). It is helpful to develop a schedule of all responsibilities sequenced in a logical order, and also a second listing of activities grouped by type of assistance and agencies responsible (See Figure III-2).

Some of the activities which should be included are planning and informational meetings; public relations activities; overall planning and development of the program; preparation and review of instructional materials; selection and training of supervisory and instructional personnel; recruitment of trainees; selection of training site; arrangement of tools, equipment and supplies; printing and distribution of training materials; conducting the training; and evaluating the training program and the trainees.

Task Analyses

The stage is now set to design and develop the instructional program as agreed with the client company. The first step that is often used for curriculum development is occupational or task analysis. Task analysis is performed to determine the nature and extent of skills, knowledge and

Figure III-1. Sample Format for Time-Lines Activities



information a trainee must acquire to perform well on the job. The job content is reviewed and used as a basis for developing performance objectives and for planning curriculum for the training program.

A task analysis includes procedural and technical information needed to perform a task; tools, equipment and supplies needed to aid the task performance; and a sequencing of tasks to complete a job. The information is compiled from job descriptions, interviews with present employees and observations of work in progress. Collection and compilation of task analysis information usually involves one or more trips to the company parent

Figure III-2. Sample List of Responsibilities of Key Actors

Curriculum Specialists
- Perform task analyses
- Develop curriculum
- Print instructional materials

Vocational Linking Agent
- Coordinate program
- Recruit trainees
- Select and prepare instructors
- Get equipment and supplies
- Secure physical facilities
- Handle public relations
- Evaluate training program
- Evaluate trainees
- Develop budget

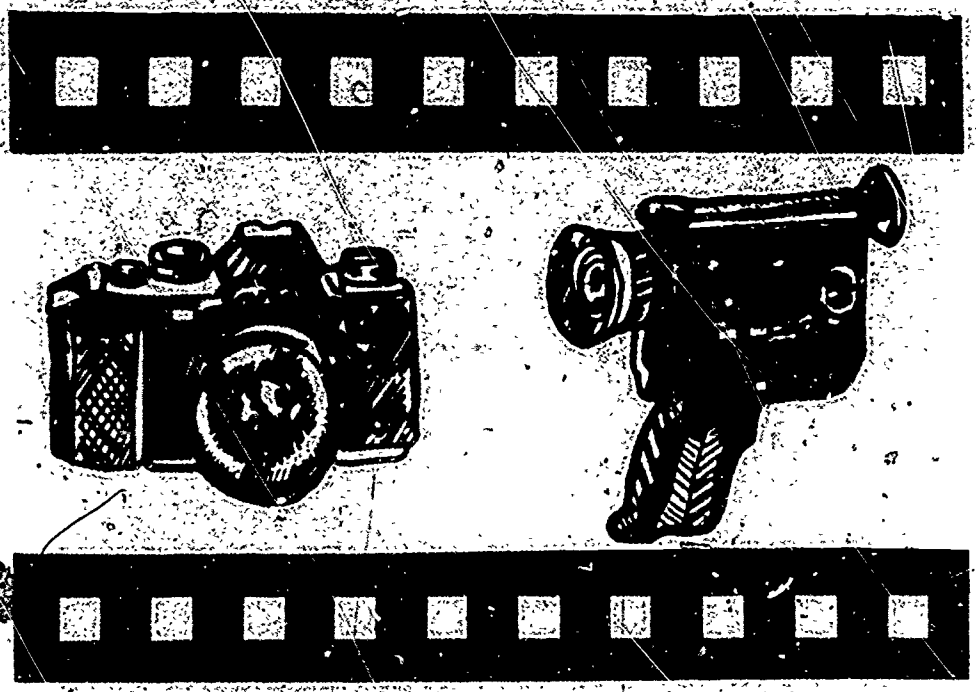
State Industrial Services Coordinator
- Secure physical facilities
- Get equipment
- Develop budget
- Handle public relations

Industrial Representative
- Approve training site
- Get equipment and supplies
- Review materials
- Handle public relations
- Select and/or approve instructors
- Evaluate training program
- Evaluate trainees

Agency Representative
- Receive applications
- Recruit trainees
- Assess trainees
- Place trainees

Team of Key Actors
- Plan program
- Review drafts of training materials
- Finalize plans
- Evaluate parts and entire program

plant (or to a plant where similar jobs are being performed) where interviews and observations are made. Still and motion picture cameras, and videotaping equipment are some of the tools used by the task analyst to



make observations and to supplement the information collected from interviews with the workers. Additional information is collected from supervisory and technical staff of the company.

Several related tasks that comprise a significant portion of the job make up an instructional block. The related tasks are organized in a logical sequence from simple to complex. Tools, equipment and materials used in performing the tasks are essential parts of the observation and grouping procedures.

When sequencing the blocks of related tasks, the following should be taken into consideration:

- Order of difficulty and sequence of performance;
- Use of tools and equipment;
- Frequency of the task performed to complete the job;
- Relative importance of the task to the total job.

Production-oriented tasks should be sequenced in assembly-line patterns similar to those on the job. Basic skills and knowledge needed to perform each task will need to be specified.

In each task analysis, the tasks should be organized by duties. Each task statement should be a separate and distinct unit of work and result in a product or service. Task information is directly related to the task statement, as are the conditions under which the tasks are performed. Tools, materials and supplies must be clearly specified. Quality control standards must also be clearly identified.

The performance objectives developed on the basis of the task analysis must have three clear parts: a specified observable performance, specified conditions under which the task is performed or learned and a standard or criterion level necessary for the performance to be considered acceptable. (For a further description of task analysis, see *Occupational Analysis of Educational Planning,* by Paul Braden and Krishan K. Paul, Charles E. Merrill Publishing Company, Columbus, Ohio.)

Curriculum and Instructional Materials

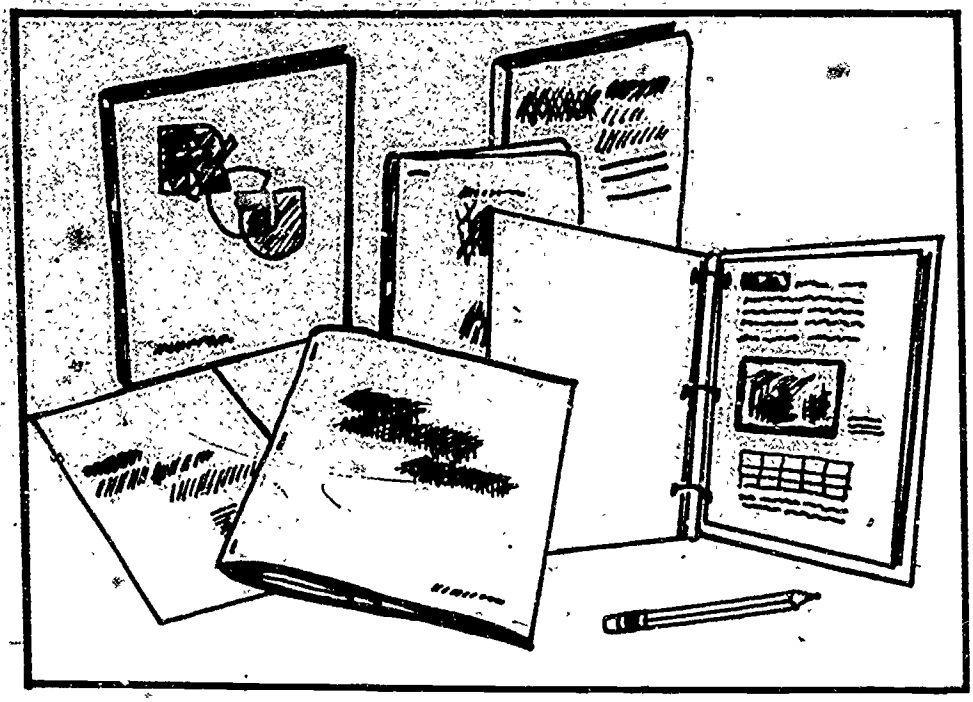
After the task analysis and performance objectives have been identified, the next step is to develop instructional materials. This usually entails preparing a training manual which reflects the general philosophy of the client company and sets the achievement and skill levels required for job performance.

Following is a list of some helpful hints that make a good training manual:

- Collect and compile the content from task analysis;
- Synthesize company or other applicable materials;
- Conduct additional task analyses, if necessary;
- Formulate training objectives;
- Choose a title incorporating company name, if possible;
- Outline the intent and nature of instructional procedure;
- Sequence learner activities and illustrate with supporting materials;
- Divide the manual into self sustaining units of instruction;
- Edit manual;
- Review manual with the company;
- Make changes or revise as necessary.

The manual will be easier to read if it is broken into small elements (not long paragraphs), and if professional technical editors perform the final editing. The manual should have clear and concise directions, be free of typographical errors, follow a standard format throughout and be free of trite or unrelated information.

Additional tasks related to the development of training manuals include printing, binding and presentation to the company.



Instructional Staff

While developing the instructional program, instructors must be selected. In most cases, the training agreement and the selected instructional method determine the source and nature of instructional staff. Pre-employment and in-plant training often require that the instructor(s) be company employees in which case they are selected by mutual consent of the company and the training administrator. Certification procedures for company employees to teach vocational education (industry training) classes differ from state to state. However, due to the short duration of the training programs, and the qualification and industrial experience of the employees, temporary certification is rarely a problem. In some cases, though, the employees may need some extra assistance before they are put before a class of trainees to teach.

Following are some of the areas of teaching technology which could be selectively used to upgrade the teaching skill of the instructor.

- Establishing objectives centering on tasks and responsibilities performed in industry, including the selection and sequencing of the tasks;
- Establishing an agenda and hour-by-hour lesson plans to guide the instructional process, including topics, resources and time allotted, basing them all on performance objectives;

- Learning to use teaching aids prepared for the program including procedure manuals, instructor guides, reference units and the use of audiovisual equipment;
- Learning how to plan for teaching in the classroom and individual operation skills in the plant. This should include both psychomotor or manipulative skills and affective and attitudinal skills such as safety, quality assurance and human relations;
- Developing evaluation devices and techniques for testing knowledge and skills for reinforcement learning and as check-out criteria.

When the agreement calls for the training institutions to provide instructors, available faculty in vocational schools and skill centers provides a ready resource of qualified instructors. Many states and communities have used retired trade teachers and college professors very successfully for this purpose. In order to make use of a similar resource in your community, develop a roster of retired teachers, professors and private industry executives according to the area of their expertise. This will prove very useful when an instructor is needed. Open market recruitment is advised only for those programs that are longer in duration than a typical industry training program. For open market recruitment, go by the advice of the personnel department.

Trainee Recruitment

The objective of successful recruitment of trainees is to attract into the training program those with skills or aptitudes to perform certain jobs. As in other aspects of industrial services programs, industry likes to have some control over the selection of trainees. In fact, in some instances, the company maintains complete control, doing the recruiting themselves with no outside help. In practical terms, trainee recruitment by training administrators is required only for pre-employment training programs. In all other cases, the employer is solely responsible for trainees availability.

For pre-employment training, most companies like to do recruiting or screen the applicants before they enter the training program. Screening by companies may involve anything from a perfunctory interview with a company employee to elaborate testing by the company personnel department. In any case, pre-employment training involves at least some recruiting by the training institutions.

State and local employment offices are good sources of trainee recruitment. Other sources include vocational schools, skill centers, CETA prime sponsors, labor unions, chambers of commerce and other community-based organizations. In some cases radio, television or newspaper advertisement for volunteer trainees is advisable but only after clearance with the company. The ad campaign should always be coordinated with the employ-

ment offices who have budgets for such activities.

Usually testing or assessment of the applicants is not required beyond ascertaining that they possess the basic qualifications for entry into training and to the job. Whenever assessment is required by agreement with the company, such effort should be coordinated with employment services who have the facilities and the budget for testing and assessing applicants. The employment offices also maintain employment and career counselors on their staff who should be used whenever possible.

Some institutions have developed their own testing programs. For example, the Career Assessment program at the Upper Valley Joint Vocational School in Ohio uses tests and work samples to identify vocational abilities, interests and work behavior of individuals.

This program consists of the California Ability Test Battery, Career Occupational Preference Survey and the Singer Vocational Evaluation System. A trained vocational counselor evaluates the test batteries and actually allows the individual to perform work which would be required in a variety of common jobs.

Other test batteries may be utilized to evaluate and assess specific abilities. These tests may be used to select, predict and help business and industry find the best employee for a position in their company.

Tests are conducted in sample work stations which simulate the actual work setting. Behavior and performance are evaluated against standardized norms. The tests help individuals determine what they can do and what they prefer.

The linking agent should work closely with CETA prime sponsors, chambers of commerce and local human service agencies to locate and identify technically qualified applicants on the one hand and to persuade the employers to accept them on the other.

Equipment

Obtaining appropriate equipment is an essential element of a successful program. The linking agent and the company representative must determine equipment needs, taking into consideration the current skill of the trainees; the type of training planned; the number of trainees to be served; the planned schedule that trainees will follow; and the size, weight and the shipping mode of the equipment. Key actors in equipment procurement may include the state directors of vocational education in charge of reimbursement, the local vocational directors, the training institutions, and the client company representatives.

Only equipment that can be reused in more than one training program can be justified for purchase with public funds. Specialized or exotic equipment needed for training workers for client employers only, should

be either furnished by the company or leased with substantial help from the company.

If state-owned equipment is used for in-plant training, agreements detailing the use, maintenance, and return of the equipment must be signed by the company. Usually, the use of state-owned equipment to produce marketable products is prohibited even when used for in-plant training. Some sources of training equipment include: transfer from other vocational schools, purchase by a local institution, lease from the client company or other similar source, purchase from government surplus property agencies, state equipment pools or warehouses, Defense Industrial Plant Equipment Centers (DIPEC) or even outright gifts or donations from industry.

In practice, usually only general types of equipment and instructional materials are provided by the training institution with the company providing any special equipment.

Trainee Certification

Some occupations such as nurses, dietitians, machinists and so forth require that the entering employee have some form of certification, either from state regulatory agencies, or from their respective unions. The training institution, if involved in training for the jobs in these occupations, must take responsibility for assuring that the training programs meet the standards of certification. The training administrator must work closely with the certifiers to obtain legitimate certification for trainees who successfully complete the program. This certification is often necessary for apprenticeship, childcare and health-related occupational programs.

Physical Facilities

One of the most convenient places to hold training programs is in vocational-technical complexes, community colleges or other educational centers. However, careful coordination is required when sharing these facilities with regular vocational programs, especially when used by other than regular instructors. When these facilities are not available, there are many other options from which you can choose.

The use of community facilities is another option to be considered, especially when school facilities are not available or accessible to trainees. These may include abandoned schools, warehouses, garages or fairground buildings. You may have to negotiate with the local political and community leaders for a site to rent, lease or borrow.

Mobile facilities are available in some states. These are portable classrooms and laboratories set up in vans, trucks or mobile homes. They can

be set up at or near the school or near the client company plant for a training program and then moved and reused in other programs at other sites.

A more expensive, thus less used, option is constructing new facilities especially for a single training program. This option is used only when the training program has potential to run over many years supplying skilled labor for a very large company on a continuous basis. Usually, the contract in these types of programs has a clause turning the building over to the nearest vocational center when the program is terminated.

When considering a site, review training requirements, develop an appraisal based on those requirements, tour the proposed site and determine if it is suitable and ready to make necessary alterations.

Whether the facilities are rented, leased, borrowed, renovated or accepted as a donation, the following considerations should be taken into account.

- Tools and equipment located in the facility, are appropriate for the program and are in good condition;
- Additional tools and equipment, if needed, are available and installation requirements are met;
- The facility has adequate wiring, space, storage, lighting, ventilation, electricity, water and other necessities;
- The facility meets OSHA standards and is in compliance with other regulations;
- The location is cost effective, near the area where the plant will locate, accessible to a majority of the trainees, readily available and is such that flexible scheduling is possible;
- Equipment can be installed meeting appropriate space requirements, outlets and wiring are adaptable, loading and docking facilities are available, and doorways are wide enough to accommodate the equipment.

Any modifications are usually financed through the local vocational institution if located there, or are negotiated between the institution, the client company, the community and the state. Help in renovation may be gotten from vocational students if the work is related to their program of studies, or from the client company's maintenance staff.

Placement Activities

It is to the advantage of the industry training program, as well as of the client company, to place as many trained persons as possible. Not only does it fill the major goals of the program, but high placement rates will impress the community with the sincerity of the industry in helping local citizens and will also help to improve the image of the local vocational-technical institute. This will establish the reputation of the company in

the community and will work for lasting relationships between the company and the training institution.

Even with these advantages, some companies may not offer employment to all individuals who complete the program. Most programs admit a few more trainees than needed in order to take care of normal attrition. When less than expected attrition takes place, all persons completing the program may not be offered jobs. Trainees are, or should be made, aware of this. They may not receive offers because they do not show appropriate interest, or they do not adjust to the training program. On the other hand, the trainees may have misunderstood the nature of the work, and may not be able to perform the required work. Lastly, the client company may experience a slowdown in production due to economic and market conditions and thus may be unable to offer jobs to all completers. In all such cases, completers should be assisted in securing jobs in other companies.

Closing a Program

Prior to closing a training program the training administrator, in consultation with the instructor and the company representative, should determine the exact termination date. Determine the status of borrowed and rented equipment, and decide upon a possible user for the unneeded purchased equipment.

In closing a program, plan and conduct a graduation exercise if appropriate and award certificates of completion or achievement. Assist in the placement of the trainees, and assess the program with instructors and company representatives. This is also a good time to discuss future training needs.

After the program is closed, return rented or borrowed equipment, restore the facility to the desired condition, complete records and financial obligations and interview and observe former trainees on the job.

Evaluation

Evaluation can be effectively used as a vehicle for change and as a monitoring device during the operation of a training program. Evaluation can also provide a basis for upgrading program personnel and for identifying alternative training strategies. Other reasons for evaluation include determining if a program is cost effective and insuring the accountability of expenditures. However, evaluation is always in terms of the goal or objective you want to achieve from the activity or the program. The first step, therefore, is to state your program goals and objectives in as specific terms as possible. Remember, the effectiveness of evaluation is directly proportioned to the specifications of your goals or objectives.

Techniques for evaluation differ greatly with different purposes and focus. Among the most common techniques are:

- **Performance testing**—measurement of competencies achieved by the trainees through written or oral tests.
- **Follow up**—contacting individuals after their participation in a training program to elicit their opinion about the program, or to collect information about their jobs, wages, work environment and so forth.
- **Employer survey**—obtaining performance ratings of former trainees, and suggestions for improving the program by interviewing or surveying employers.
- **Expert opinions**—a group of experts, perhaps an advisory council, study the program or activity and express opinions about its effectiveness.
- **Cost/Benefit analysis**—the cost of the program is compared to its benefits (to individuals and society). This technique is more effective when the objectives are specific and benefits can be quantified.

As you select evaluation techniques, beware of informal procedures which may lead to haphazard or unreliable information that has little purpose or direction. Evaluation should serve as a guide for future programs, as well as satisfying immediate and temporary needs of accountability. Evaluation must have strong support from those involved in the program, and must consider all aspects of the program, from start to finish.

Monitoring

Monitoring is keeping an eye on the program as it is conducted or implemented. The objectives of monitoring are mostly implied rather than stated. For example the existence of a budget implies that, (1) all expenses are accounted for; and (2) all expenses remain within the specified limits. Thus, monitoring of the budget means keeping a check on the expenses and watching for any major variations. Other functions of the program that need monitoring are the following:

- **Work progress of the trainees**—Are they developing desired attitudes towards, and skills appropriate for, the jobs? Does their progress match the schedule of the program?
- **Progress of instructor**—Are the methods and techniques of the instructor effective? Are lessons well prepared and presented? Is learners' progress evaluated? Are learners assisted when they need help? Is every available resource utilized?
- **Classroom management**—Are the trainees participating in class activities and cooperating with the instructor and fellow learners? Are resources sufficient in quality and quantity, properly used and

well maintained? Are attendance records up-to-date? Is guidance available for chronic absenteeism, and are potential dropouts recognized and counseled?

- **Purchasing**—Is discretion used in purchasing tools, equipment and supplies, especially if they are not reusable? Are proper records maintained? Are requisitions followed through to alleviate slow downs in delivery of goods?

These and other questions will help you discover problems as soon as they arise. When a problem does come up, study it carefully, obtain input from all those involved, determine a solution, clearly identify changes to be made and determine who is responsible to make the changes, and develop a time-line for implementation of the changes. The training administrator should provide assistance whenever there is a problem that needs resolution.

Summary

Planning for specific Industry Training Services begins with a request for training from a client industry, and proceeds as follows:

Develop Overall Plan
- Training Agreements
- Instructional type and method
- Budget
- Time-Lines

Design and Develop Program
- Task Analyses
- Curriculum and Instructional Materials
- Equipment Needs

Delivery System
- Facility Arrangements
- Instructional Staff
- Equipment
- Trainee Recruitment
- Certification
- Placement

Evaluation
- Monitoring and Evaluation
- Closing Procedures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Section IV

SOURCES OF FUNDING AND TECHNICAL ASSISTANCE

Funding and technical assistance is often available from the same source. Even in these times of reduced spending, a community will have resources of people, materials and money currently available to it. However, creative combinations of these resources may be necessary. These resources may be available to the public through local, state or federal governments or they may come from the private nonprofit system.

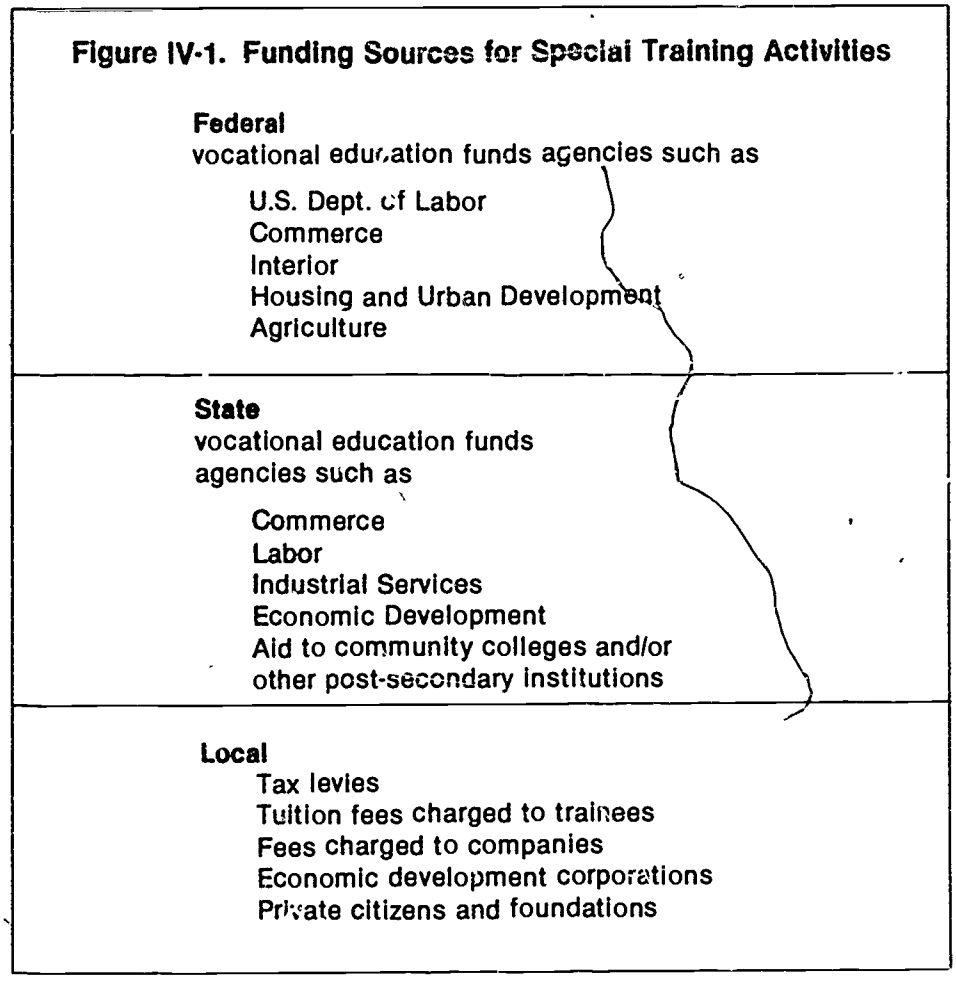
Using the services, talents, contacts and abilities of people within the community can be a great source of resources. Involvement of local people increases the degree of acceptance the program will have. Look for ways to secure these resources through low-cost cooperative arrangements or through donations. As the first step, identify the resources which already exist within the community and ask: "How can these be used to help solve the problem?"

For example, would a local architect donate design plans for a project? Would a graduate student at a state university write a dissertation on bringing new industry to the community? Can usable materials from a condemned structure be recovered for the project?

One source of equipment and materials at low cost is the federal government, through its surplus property program. Local government people can steer you to the nearest office of the General Services Administration which sells surplus property.

Some sources of funding and technical assistance are listed in Figure IV-1. Federal vocational education funds are obtained from state departments of occupational or vocational education. State funds set aside for customized training might be obtained from departments of vocational education, labor, commerce, industrial services, economic development or other agencies so designated. Other possible sources of funds include state aid to community colleges or other postsecondary institutions, tuition fees charged to trainees or companies, local tax levies, or private foundations.

Figure IV-1. Funding Sources for Special Training Activities



Federal Agencies

Federal agencies provide more than funds. They can be very valuable sources of technical assistance in program planning, implementation, and evaluation; curricular and instructional materials; resource people for advice and information; and sources of guidance and empathy in learning to deal with the bureaucracy. Keep in mind that they are paid by tax dollars, and are there to serve.

The key to locating federal government resources is to find someone to do the locating—someone who knows the "system". Write to your congressperson or to the regional office of the appropriate federal department (for example, Labor, Agriculture, Education) for help. The U.S. Government Printing Office provides many publications free or at minimum costs. Write for a publication list on the topics of interest to you.

The standard reference to consult is *The Catalog of Federal Domestic Assistance.* (The *Catalog* is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The 1981 price for a one year subscription, including updates, is $20.00.) Published by the U.S. Office of Management and Budget and updated annually, this is the one official government document that attempts to list every single source where a community or individual may seek federal funds for a desired program or project.

The listings of the *Catalog* contain the following sorts of information:

1. Name and identification number of the program;
2. The agency administering the program;
3. The purpose of the program;
4. The kinds of costs that can be met from federal program funds;
5. The local matching share requirements, if any;
6. General requirements which must be met to qualify for assistance;
7. How much money the program has had available in recent years;
8. The application process;
9. Post-approval requirements;
10. How to get information about the program.

The Federal Assistance Program Retrieval System, (FAPRS) contains much of the information in the *Catalog of Federal Domestic Assistance* in a computerized form. FAPRS is a computer operation which allows for a search of over 600 federal programs and provides a printout of those program numbers and titles which fit the particular category of assistance you select. FAPRS is programmed to print out only information on available grant programs which fit a specific need you are trying to meet. The land-grant university in each state has this service. The county extension office can make a request to the institution for you.

State Agencies

State agencies are excellent sources of information. Information systems can be found in States' Occupational Information Coordinating Committee (SOICC), as well as, through the Bureau of the Census, the Bureau of Labor Statistics, Educational Resources Information Center (ERIC), National Technical Information Service (NTIS), and FAPRS.

The importance of information can not be overemphasized. The successful linkage development and delivery of services to business and industry, as well as, to the community will depend greatly on the accessability of reliable, timely and detailed information on labor market demand and supply for skilled workers, training institutions and programs. One of

the first steps in searching for such information should be your SOICCs.

Your SOICCs provide access to much of this information, either directly from within their system, or indirectly through guidance to another appropriate agency's information system. Although SOICC's vary from state to state, many have exemplary systems designed to (1) meet the common needs for planning and operation of occupational training and employment programs in the state; and (2) to improve coordination in the use of occupational information for program planning.

One model system is the Maine SOICC's occupational information system, in which administrators can dial up its interactive computer system from anywhere in the state. An administrator could tell the computer, "I want to set up a class to train 20 adults who do not have high school diplomas. The training can last from six to 12 months, and it must prepare them for a job which pays a minimum of $5 an hour. What programs would be best to offer?" After printing out a list of programs that would fit that criteria, the computer then can provide supply/demand data and a list of employers seeking workers with those skills.

While every SOICC does not have a computerized data bank, they all have access to information that can help a coordinator plan.

OIS STRUCTURE CONTENT AND DATA SOURCES

Page 1 of 10

1 Occupational Information Category	2 Source of Data	3 Reference Page: A Text	3 Reference Page: B Appendix	4 Importance of Data to Users	5 Frequency of	6 Available in State	7 Responsible Agency
I OCCUPATIONAL DEMAND							
A Current Occupational Demand	Census	20-25	A2-3				
1 Current employment	OES	25	A28-33				
a Industry	CES	29	A4-5				
b Occupation	CPS		A7				
	LMI Core Products		A22-25				
	ES-202	29	A39-40				
2 Job openings	ESARS	25-26	A12 13				
a Current job vacancies	Job Bank	26	A18 19				
	LMI Core Products		A22-25				
B Projected Occupational Demand							
1 Projected employment	OES	27	A28 31				
a Expansion	LMI Core Products		A22 25				
b Reduction							
2 Replacement needs	Table of Working Life						
a Deaths	Vital Statistics						
b Outmigration							
c Labor force separations							
d Transfers to other occupations		27 28	A38				
	OES	25	A28 31				
	Census	28	A2-3				

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Professional Organizations

Professional organizations like the National Association of Counties, National Association of Development Organizations, National Association of State Development Agencies, American Vocational Association and National Manufacturers Association can also serve as resources. Many states are currently forming economic development associations. Consider professional journals and associations such as the American Institute of Architects, the National Association of Industry Education Councils and dozens of other organizations. Knowing people who work for a professional organization may be the key to locating resources within a professional organization.

Colleges and Universities

Colleges and universities provide help for some programs through research coordination units, curriculum development centers, and research and practical application projects. The Research and Curriculum Unit (RCU) for Vocational-Technical Education at Mississippi State University is an excellent example. The RCU has developed an Industry Services Leadership Development (ISLD) program consisting of 33 self-paced modules. Each ISLD module is a complete learning unit containing industrial training information, self-test, practice learning activities, and instructions for performing the industrial services and a guide for using the self-paced modules in preparing personnel for industry services leadership roles.

The land-grant universities and other institutions of higher learning have faculty members who are "experts" in economic development. One of the functions of land-grant universities is public service—to help communities in their state. Both the Extension Service and the Experiment Station of land-grant universities can assist you in finding experts, publications and good advice.

Other Vocational Educators and Education Administrators

Those educators involved in special training services for industry are probably the best resource of all for helping plan and implement a successful program. Find out how others have tackled the same problem. Check the communities nearby or within the state to see if they have recently undertaken a project similar to the one being considered. Much can be learned from other people's successes and failures. New approaches to existing problems may be found. A realistic appraisal of how much different programs cost, how long they take to achieve and how they could be evaluated can be made.

Other Sources

Other sources of technical assistance may have to be purchased on a retainer or consultant basis. If federal funds are involved, the sponsoring organization must insure that the money is properly accounted for and that there is a sound audit process. Among the costs of dealing with federal money is the price of public scrutiny. As educators you are already accustomed to this kind of scrutiny. Especially in politically conservative areas, "controversial" projects are usually attacked on the grounds that "taxpayers' money is being wasted." The only defense against such a charge is a good accounting system that can withstand any challenge by federal inspectors or auditors. Good legal talent is also often necessary for the successful implementation of a training program particularly if complicated contracts or loan agreements are involved.

Selected Readings and Bibliography

Section V

SELECTED READINGS AND BIBLIOGRAPHY

The following list of annotated publications represents a resource for people in education to assist them in becoming more familiar with economic development, job creation and how the processes can fit into vocational education. These readings represent an introduction and overview of a complex process Many of the suggested readings have more complete bibliographies in them. The items have been chosen because they are comprehensive yet not so technical as to discourage the person new to the field of economic development. Many are small, easily readable bulletins. Available ordering information has been included for ease in obtaining materials.

These readings have been divided into the following areas: (1) Vocational Education; (2) Economic Development Process; and (3) Change Theory. A more comprehensive annotated bibliography was compiled by a project funded by the Illinois State Board of Education, Department of Adult, Vocational and Technical Education and conducted by the University of Illinois at Urbana-Champaign. Copies of this bibliography are available from Dr. Robert E. Nelson, Director, Job Creation Project, University of Illinois at Urbana-Champaign, College of Education, 346 Education Building, 1310 South Sixth Street, Champaign, IL 61820.

VOCATIONAL EDUCATION

Vocational Education and Training: Impact on Youth by John T. Grasso and John R. Shea. The Carnegie Foundation for the Advancement of Teaching, 437 Madison Avenue, New York, N.Y. 10022, 1979. 243 pages.

This report examines 1. choice of high school curriculum; 2. relation between curriculum on one hand, and aspirations, occupational information, and highest year of school completed on the other; 3. psychological reactions to the high school experience of those who have followed various "tracks," and 4. the early labor market and further

training experiences of former vocational students as compared with their general program peers with equivalent years of schooling.

The work is based on an analysis of data through the 1970s of two representative national samples of young men and women. An Executive Summary provides an overview of the study.

Developing the Nation's Work Force edited by Merle E. Strong. American Vocational Association, 2020 North 14th Street, Arlington, VA 22201. 1975. 347 pages

This book "is not only about vocational education in the public sector, but views the preparation of manpower wherever it takes place: in other public and private schools, in industry, in the military, in all settings." Several chapters deal with work force projections, planning and preparation; others comment upon providing equal education and employment opportunity to the total population. "It is suggested that the volume would be of value for all persons working in the field of manpower . . ." (p.7)

The Planning Papers for the Vocational Education Study by the National Institute of Education. U.S. Government Printing Office, Washington, D.C., 1979. 336 pages.

This volume contains 14 papers commissioned by the NIE. The planning papers speak from a variety of perspectives on a diverse set of topics relating to vocational education. The authors in this volume express varying views of what vocational education should be. The papers are divided into four major sections, each section beginning with a brief introduction of the policy issues raised.

Part Four "Selected Aspects of Vocational Education Policy" is especially pertinent to economic development and vocational education. Chapter 10 deals with vocational education's role in national employment and training programs while Chapter 14 deals with eliminating poverty through vocational education.

Job Training and the Schools: A Community Guide to Vocational Education. The National Urban Coalition, 1201 Connecticut Avenue, N.W., Washington, D.C. 20036, 1980. 32 pages.

This booklet describes the fundamental characteristics of vocational programs. It also discusses the growing ties of vocational education to the employment and training programs operated by the U.S. Department of Labor under the Comprehensive Employment and Training Act (CETA). Opportunities for collaboration between the community and

the school are stressed. Guidelines for coordination between community and education are given for the national, state, and local levels.

From School to Work: Improving the Transition. National Commission for Manpower Policy. U.S. Government Printing Office, Washington, D.C. (#040-000-00364-9), 1976. 309 pages.

This report was prepared as a result of the efforts by the Commission's Youth Task Force to gather information concerning the employment problems of American youths. In addition to obtaining working papers from selected specialists on youth unemployment, the Commission worked with three large national employers—in communications, manufacturing, and retailing—who cooperated in sharing their experiences concerning young employees. This book provides a broad base of information and suggestions for improving the employment opportunities of young people. Chapter 7 deals with linkage between community and education.

The Role of Vocational Education in Economic Development by David S. Bushnell. American Vocational Association, 2020 North 14th Street, Arlington, Va., 22201, 1980. 87 pages.

This paper is the state-of-the-practice report for the project called "Identification and Dissemination of Model Programs for the Involvement of Vocational Education in Economic Development."

Three state-wide job creation and development models are outlined and vocational education's role in each is illustrated. How public and private organizations have worked out mutually beneficial relationships is then discussed. Those few systematic attempts to evaluate vocational education's part in regional economic development programs are summarized and their implications traced.

The impact of existing federal agency programs is discussed. Programs concerned primarily with minimizing the effects of cyclical unemployment are contrasted with those which focus on alleviating structural unemployment. The development of a region's human resources by means of vocational education programs and services is portrayed as one of several strategies that states and local communities have adopted.

The report concludes with a forecast of vocational education's potential role in job creation and development in the 80's.

ECONOMIC DEVELOPMENT PROCESS

The Private Economic Development Process. U.S. Department of Housing and Urban Development and U.S. Department of Commerce. Washington, D.C., 1979. For sale by U.S. Government Printing Office, Washington, D.C. 20402, Publication #HUD-PRD-482. 33 pages.

This guidebook is one of a series of three. The companion guides are *Economic Development: New Roles for City Government* and *Local Economic Development Tools and Techniques.* This booklet provides insight into how private investors and developers make decisions. It is good background reading for educators interested in becoming involved in the economic development process.

Economic Development: New Roles for City Government. U.S. Department of Housing and Urban Development and U.S. Department of Commerce, Washington, D.C., 1979. For sale by U.S. Government Printing Office, Washington, D.C. 20402. Publication #HUD-PRD-484. 60 pages.

This booklet contains a wealth of material about economic development and the role of the city. Cases are cited and samples of needs assessment surveys are included. A section on dealing with the bureaucracy is included. The topics covered are parallel to those covered in *A Guide to Economic Development Planning and Implementation* but go into greater depth.

A Guide to Economic Development Planning and Implementation. National Community Development Association, 1620 Eye Street, N.W., Suite 503, Washington, D.C. 20006, 1976. $5.00 (Limited supply). 50 pages.

This booklet surveys a number of important factors which ought to be considered in planning and implementing a successful program of economic development. It has a good section on financial tools that are available to the local community that can be applied to encourage economic development projects. Though designed to serve local public officials, it also serves as a general introduction to local economic development policy-making and programming for the lay person.

The Transformation of the Urban Economic Base by Thomas Stanback, Jr. and Matthew Drennan. Special Report No. 19. Washington, D.C. U.S. Government Printing Office, 1978. 71 pages.

The objective of this monograph was to provide insights regarding the nature of urban economic systems and their growth processes which will be useful in formulating development policy. The monograph analyzes metropolitan growth and examines major trends in suburbanization, regional shifts and demographic structure. It illustrates the dif-

ferences among cities in terms of economic organization and opportunities and suggests priorities in formulating developmental policy.

Bridges to the Future: Forces Impacting Urban Economics by Gail Garfield Schwartz. The Academy for Contemporary Problems. Single copies free; limited supply. Order from Publications Department, 1501 Neil Avenue, Columbus, Ohio 43201, 1978 (reprinted April 1980). 35 pages.

A good overview of factors and policies that affect urban economies, this booklet is good background reading for anyone interested in community and economic development. Garfield states that work is the passport out of poverty and that urban social problems will not be solved without either changing our mores, or giving the disadvantaged access to work.

Rural Development Programs, The Center for Community Change, 1000 Wisconsin Avenue, N.W., Washington, D.C. 20007, (202) 338-6310. $1.50. August 1979.

This guide for rural development programs is easy to read and stresses how to find money for local programs from the federal government. An index of key federal programs referred to in the guide is most helpful. An interesting discussion of how to create jobs in rural communities is included on pages eight to nine.

Studies in State Development Policy edited by Michael Barker. Published by the Council of State Planning Agencies, Hall of the States, 444 North Capitol Street, Washington, D.C. 20001, 1979.

1. **State Taxation and Economic Development** by Roger J. Vaughan. #3614. $9.95
2. **Economic Development: The Challenge of the 1980s** by Neal Peirce, Jerry Hagstrom and Carol Steinbach. #3610. $9.95
3. **Innovations in Development Finance** by Larry Litvak and Belden Daniels. #3612. $9.95
4. **The Working Poor: Towards a State Agenda** by David M. Gordon. #3611. $8.95
5. **Inflation and Unemployment: Surviving the 1980s** by Roger J. Vaughan. #3618. $8.95
6. **Democratizing the Development Process** by Neal Peirce, Jerry Hagstrom and Carol Steinbach. #3616. $7.95
7. **Venture Capital and Urban Development** by Michael Kieschnick. #3613. $8.95

8. **Development Politics: Private Development and the Public Interest** by Robert Hollister and Tunney Lee. #3614. $8.95

9. **The Capital Budget** by Robert Devoy and Harold Wise. #3615. $8.95

This series of publications is a result of policy research by the Council of State Planning Agencies which has been associated with the National Governors' Association since 1975. It covers a wide range of topics that are of interest to persons involved in economic development.

The vocational educator involved in or thinking about getting involved in economic development will find Volume 2, *Economic Development: The Challenge of the 1980s* and Volume 7, *Venture Capital and Urban Development* particularly relevant.

The authors of *Economic Development: The Challenge of the 1980s* stress that most jobs are created in existing small industry and in brand new industries. State plans for economic development require the active backing and support of the governor. Realistic plans should be coordinated to bring together the many state-funded programs that affect economic development.

Volume 7, *Venture Capital and Urban Development* will be of particular interest to state officials in developing policy about small business. A survey of the nature of new small businesses in four cities was made and some interesting conclusions are reached. The work represents a preliminary search for public policies designed not merely to provide advantages to new and small firms, but to remove unjustified barriers in those situations where the job and income producing potential of small firms is not being fully realized.

The Boundless Resource by Willard Wirtz. The New Republic Book Company, Inc., 1220 19th Street, N.W., Washington, D.C. 20036, 1975. 205 pages.

In this book, Wirtz provides detailed and practical suggestions aimed at private and public policy makers involved in bridging the gap between education and work. His suggestions for bringing the worlds of education and work closer together include: 1. establishing collaborating processes within the community and the school for developing and administering education-work policies; 2. increasing public interest in the effort resulting in broad community membership; and 3. extending education-work policy to the adult years, especially to women, racial minorities and other disadvantaged persons.

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Creating Jobs: Public Employment Programs and Wage Subsidies, by John L. Palmer. The Brookings Institution, 1775 Massachusetts Avenue, N.W., Washington, D.C. 20036, 1978. 379 pages.

The conference papers and formal discussions included in this volume examine issues concerning job creation. In the first chapter, Garfinkel and Palmer present a broad assessment of job creation policies concluding: "Current policies in the United States heavily favor public employment programs. A more balanced approach, with wage subsidies applicable to regular public as well as private employment, is likely to be more fruitful." (p.42)

Understanding CETA. The National Urban Coalition, 1201 Connecticut Avenue, N.W., Washington, D.C. 20036. 32 pages.

Vocational educators need to know the contents of the Comprehensive Employment Training Act. This booklet gives a summary of each of the eight titles. It also includes addresses of regional offices and a list of organizations at the national level which can act as resources about CETA.

Partners: CETA, Education, Youth. Youth Employment Education Unit, Division of Special Services, Minnesota Department of Education, St. Paul, Minn. February 1979. Order with prepayment of $2.00 from State of Minnesota, Documents Section, Room 140 Centennial Building, Minneapolis, Minn. 55155. 64 pages.

Though this book is about CETA programs in Minnesota, it has much that applies to any state. There is a very good section on cooperation between CETA programs and the educational system written for CETA personnel with an excellent chart (p.8) showing the various levels where linkage and collaboration can occur between CETA and education. To someone unfamiliar with CETA acronyms, the "Guide to CETAnese" will be most helpful.

Job Creation Through Enterprise Development: CETA and the Development of Local Private Public Enterprises. The Corporation for Enterprise Development. U.S. Department of Labor, Washington, D.C. 1979. 164 pages.

This report includes a summary of the findings and recommendations presented by representatives from 25 states at the National Conference for Developing Local Private-Public Enterprises held in December 1978. The consensus was "that the accelerated development of local, private-public enterprises was immense and unrealized potential for large-scale, targeted job creation." (Executive Summary) The interaction of CETA and the enterprise development approach to job creation is reviewed.

Industry Services Leadership Development Program, (ISLD), Research and Curriculum Unit for Vocational-Technical Education, Mississippi State University, Drawer DX, Mississippi State, Miss. 39762. Thirty-three modules of 25-35 pages each.

The ISLD program consists of 33 self-paced modules designed to train state and local leaders for roles in industrial training. The ISLD modules were prepared by persons with extensive experience in conducting training programs for new, expanding, and existing industries. Each ISLD module is related to an actual task which must be performed by a leader of industrial training activities. When used as a set, the ISLD modules cover the major tasks which must be performed in planning, developing, conducting, and evaluating industrial training programs.

The ISLD modules are designed to be used by any person who will perform one or more tasks in designing and conducting industrial training programs. The modules are compilations of information on how to perform industrial training assignments. The information includes procedural guides and case studies of industrial training activities. Thus, each module will serve as a valuable reference on industrial training activities to be completed and how to complete them.

CHANGE THEORY

The Change Agents Guide to Innovation in Education by Ronald G. Havelock. Educational Technology Publications, Englewood Cliffs, N.J., 1973.

This handbook couples practical steps with illustrations regarding how individual or team "change agents" can establish a relationship with a "client system," then can aid that client in diagnosing needs, acquiring knowledge resources, choosing a course of action, gaining acceptance for that course and then renewing oneself so that innovation does not become inflexible.

Planning for Innovation Through the Utilization of Scientific Knowledge by Ronald G. Havelock. Institute for Social Research, Ann Arbor, Mich., 1971.

Under a federal grant, Havelock and his associates analyzed thousands of pieces of literature on planned change. They identified with three general strategies: Research and Development (R&D), Social Interaction (S-I), and Problem-Solver (P-S). Havelock's attempt to synthesize these rather different approaches he called linkage which has become the foundation for recent planned change models. One of the

best ways to get a grip on planned change theory and research is to read Chapter 11, then branch out from that synthesis.

Making Change: A Guide to Effectiveness in Groups by E. Guthrie and W. S. Miller. Interpersonal Communications Programs, Inc., 300 Clifton Avenue, Minneapolis, Minn. 55404, 1978. $6.95 in paperback.

The authors, one a community development consultant and the other a former community development teacher and now studying the dynamics of change from a human energy ecology point of view, have combined their talents to write this book about process politics. It is cleverly written and illustrated. Though the examples are of community development situations, the change theory could be applied in any situation where individuals and/or groups must work together to reach a common goal.

Coping with Conflict: Strategies for Extension Community Development and Public Policy Professionals. North Central Regional Center for Rural Development, Iowa State University of Science and Technology, 108 Curtiss Hall, Ames, IA 50011, 1979. (Single copies complimentary)

Educators involved in the interagency cooperation and collaboration required for economic development and job creation need to know about managing conflict. This series of papers by authors with a background in the Cooperative Extension Service provide a starting point based on theory and practical experience. An excellent resource section lists organizations which deal with conflict professionally and an annotated reading list.

Appendices

Appendix A

ADVISORY COMMITTEE FOR VOCATIONAL EDUCATION AND ECONOMIC DEVELOPMENT

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Appendix B

CASE STUDIES OF SEVENTEEN MODEL SITES

The brief summaries of 17 case studies reported on the following pages resulted from the field work undertaken as a part of the project. The 17 sites were selected from the responses received from state directors of vocational education, state directors of economic development and state CETA prime sponsors. The three officials in every state were requested to nominate a site—if any—in their areas where vocational education was providing training support for economic development. Sixty-two responses were received out of which 17 were selected.

The selected sites represented the following:

Regions	
Northeast	6
South	4
Midwest	4
West	3
Urban/Rural	
Statewide	4
Local	13
Urban (population of more than 50,000)	4
Urban (population between 10,000 and 50,000)	7
Rural (population less than 10,000)	2
Special Considerations	
Cooperative education	1
Entrepreneurial training	2
Minority population	2
Delivered by CETA	1
Delivered by Chamber of Commerce	1
Delivered by Community Colleges	4

Field Work

All 17 sites were visited by the project staff. Interviews were conducted with vocational and economic development leadership, program participants and industry representatives, and other selected officials of different agencies involved in economic development, job creation or community development. The objective of the interviews was to determine if there were any common factors that made the programs successful.

Creation of new jobs and the endorsement of users were the only two criteria used to determine whether programs were successful. No effort was made to differentiate between grades or levels of success of any program.

The following five factors were found to be common to all programs which met the above criteria:

1. Clear mission and commitment of the community to support vocational education's role;
2. Strong leadership;
3. Flexibility in program offerings;
4. Close coordination between vocational education and other local and state agencies.
5. Adequate capacity of vocational education to deliver services.

The summaries on the following pages give only a brief description of the programs that were observed at the 17 sites. Full texts of the case studies are available in another AVA publication entitled "Vocational Education and Economic Development: Seventeen Case Studies."

MIDDLESEX COUNTY, CONNECTICUT

Faced with an acute shortage of skilled machine workers around the Middlesex County area in Connecticut, the Middlesex County Development Council, along with the Chamber of Commerce and the State Department of Labor, started a basic machine training program to serve small industries. The first three programs proved very successful. By 1980 efforts were afoot to expand the program to other selected areas of the state.

Organization

The Basic Machine Training program in Essex is funded by the Connecticut Department of Labor. It is managed and coordinated by the Northern Middlesex Chamber of Commerce. In 1980, the program's third year, it enrolled and trained 12 persons in basic machine tool operation.

The sponsoring companies (all machine building or electrical machinery companies) screened applicants referred to them by the local employment security office to hire the trainees for the program. After a day of orientation with their employing companies, the trainees attend classes for six weeks at the Vinal Regional Vocational-Technical School to learn fundamental math and communication skills, basic machine operation, use of hand and machine tools and a fundamental course in safety. In addition to learning basic skills, trainees also develop an identity with their employing company and learn good work habits. Trainees needing remedial work or counseling are provided additional services by the Vocational-Technical School, which also provides their instructors and supervisors.

At the end of six-week initial training, trainees spend four weeks of on-the-job training in their respective companies. During this period instruction is provided by the designated company employees while the project staff regularly monitors the progress of each trainee. Any trainee requiring additional classroom instruction or counseling continues to receive these services from the Vocational-Technical School. At the end of the ten-week training period, trainees graduate from the program and enter full-time employment at their sponsoring companies.

An important feature of the program has been the involvement of the sponsoring companies. All trainees were hired by the companies before they entered the program. As such, every trainee who completed the program was assured a job. This feature was very popular with the trainees as well as with the companies.

Results

Since its start, the program has trained 43 persons all of whom were still working at the time of the site visit The program has been popular with small companies, and there are some plans to extend it to other areas of the state.

STATE OF LOUISIANA

The start-up training program in the Louisiana Office of Commerce and Industry was initiated in January, 1976 to keep the state competitive in the high-stake game of industrial development. Within four years the program has developed a nucleus of training professionals and delivered training services to a large number of new and expanding industries.

Organization

Overall supervision to the start-up training program in Louisiana is provided by the assistant secretary with the Office of Commerce and Industry of the Department of Commerce. The program is conducted by a three-member team headed by the Director of Training. The only formal liaison between the start-up program and vocational education, the Comprehensive Employment and Training Act, and local agencies is through representatives on boards and advisory committees. All services offered to industry are through contractual arrangements with schools, industries and private individuals.

Funding of start-up programs is entirely from state resources with no federal or local funds used for training. However, in many local programs CETA funds are used to supplement the available budget, and in-kind contributions are provided by local school systems and chambers of commerce.

When the need for training by a new or expanding industry is established, the training director meets with company officials to work out an agreement. Such agreements outline the number of persons to be trained for specific jobs; the amount of resources, space, equipment and personnel to be made available; and the contributions, if any, to be made by the company.

After approval of the agreement by the commerce secretary, the training director hires a qualified professional to analyze the jobs and processes important to the client company. The consultant develops a course of training and other necessary supporting materials and helps the instructors develop training materials and other instructional aids. The instructors are company employees, reimbursed by the Department of Commerce at a rate agreed by the company.

For pre-employment training, the trainees are not guaranteed a job at the end of the training though most are offered jobs.

Results

A good example of coordinated linkages between vocational education and other state and local agencies for economic development was

provided by the Shreveport project. The four main parties to the coordinated efforts were: the Department of Commerce, the Shreveport Chamber of Commerce, General Motors and tne Shreveport/Bossier Vocational-Technical Institute.

As of January, 1980, a total of 704 persons had been trained. Few had been hired by General Motors, however, as soon as the plant started production, most of the trainees would be hired. Of the persons trained about 50 percent were black, about 30 percent were female and some were handicapped.

On a statewide basis, according to the director of training, start-up program training was provided to 3,100 persons in 1979. Of the persons trained, 75 to 80 percent were placed on the job with employers for which training programs were conducted.

STATE OF MAINE

The Maine State Department of Education's Bureau of Vocational Education responded to an out of the ordinary request when Pratt and Whitney (P&W) Aircraft Group of United Technologies Corporation decided to build a new plant in Southern Maine. The resources of vocational education along with many other state agencies, and the legislature were part of a package of incentives used by the governor to attract the industry to the state.

Organization

A special state staff position and office was created on the campus of the Southern Maine Vocational-Technical Institute (SMVTI). The project director, a full-time staff member of the Bureau of Vocational Education, was given authority to plan, implement and evaluate the training program. The project director assumed all responsibility for management of the project including staffing, procurement of supplies and equipment, maintenance of equipment and facilities, financial and activity reports, liaison with governmental and educational agencies and constant communication with management. The operations supervisor assumed responsibility for the day-to-day operation of the in-plant components, evaluation of program and trainees, liaison with company supervision, requisitions for company supplied materials and equipment and overall supervision of instructional staff regardless of training location.

The curriculum for each of the courses provided by the project was developed by the instructors and was based upon company job descriptions and task assignments of its employees. The initial seven instructors worked with operators and inspectors in the North Haven, Connecticut plant to familiarize themselves with the machines and operations being transferred to the North Berwick plant. This hands-on time was supplemented by three weeks of classroom training conducted by staff of the Department of Industry and Technology of the University of Southern Maine.

Results

Until P&W obtained a full force, every production employee hired at the Maine plant went through the training program. The process in general was as follows: all applicants began at Job Service in Biddeford, then were interviewed at the plant personnel office. The person was hired and went immediately into a training program appropriate to his or her anticipated job, after which she or he joined a production line in the main part of the plant.

The P&W plant had more than 1,000 employees, more than 500 of whom had gone through the training program. About 10 percent of the production trainees were learning skills for nontraditional jobs. Very few minorities were involved due to the low percent in the general population. The total number of jobs created was anticipated to be 2,000.

As of June 30, 1980, the program had given 86,922 training hours. Out of 504 admissions, 438 graduated and were on line production, 11 were transferred to other programs, and five terminated their training before graduation. The remainder were still in training programs. All trainees were paid above minimum wage and placed in jobs such as quality controller, grinder and machine tool operator. The average cost per trainee is $3.75/hour (the cost of the building renovation and major equipment is not included, however, the cost of five months of planning is included).

NATICK, MASSACHUSETTS

Since its beginning in July 1979, the Media Workshop has dedicated itself to the development of good employment opportunities which were accessible to and desirable for the targeted youth. A major objective of this program was to overcome the barriers youth face when seeking employment. Students learned hands-on media-related skills and the entrepreneurial skills needed to run a successful business.

The media focus was chosen for this profit-making cooperative-type venture because (1) young people were attracted to the recreational aspects of media work; (2) the vocational opportunities in media and related fields ranged from the professional and technical to the semi-professional; and (3) the instant projection of the self through the production of visual arts enabled participants to deal with issues of self-image and personal responsibility as they emerged through their work.

Organization

The media workshop was an extension of a media training program, both sponsored by Vision in Action (VIA) and funded by CETA. The project director assumed responsibilities for the overall management and monthly reports to the Department of Manpower Development (MDM) and the subgrantee (Marlboro CETA Consortium). He also supervised weekly skill training in media areas, conducted and coordinated training in entrepreneurial and business management skills, and conducted weekly counseling and remedial education with project enrollees. He was given decision-making authority and was responsible to the administrators of Vision in Action. VIA administrators were in turn responsible to DMD and the subgrantee.

Marlboro CETA Consortium was responsible for services including assessment and testing, vocational guidance and exploration, remedial education and personal counseling, as well as monitoring the project.

Eight students selected from the media training program and the director started the commercial venture, working toward the following objectives:

- To participate in and complete the 18 week course of entrepreneurial and media skill training;
- To become involved in the research, design and marketing of commercial silk screened goods, the sale of which would generate program income;
- To conduct a feasibility study, market analysis and comprehensive business plan for the enterprise, with the assistance of local technical resources and with the input of all participants;

- To establish a separate production facility for the entrepreneurial project and to incorporate a private small business employing the project participants.

Results

As of August 1981, the Media Workshop is still in business and planning to incorporate and become self-sufficient by the end of September 1981. Profits are up 50 percent over last year. The four permanent employees, the director, and the business manager, have supplied a work training situation for six CETA trainees for the summer. A manual detailing the entire experience of the Media Workshop will be available in October.

BATTLE CREEK, MICHIGAN

Recognizing that a properly trained workforce is of critical importance to new or expanding industry, the Calhoun Area Vocational Center (CAVC) intensified its economic development efforts in 1978, when it assumed the role of catalyst.

Organization

A master plan restructuring the existing delivery system of the major agencies involved with employment and training needs was developed with the following mission: "to improve existing techniques and to demonstrate the effectiveness of an area-wide employment service and training service model that will be integrated into the area's economic and development delivery system. Such a model will provide members of the community with ready access to area-wide employment and training services through the utilization of a coordinator service source and complementing funding."

The following goals were developed:

- **Employment Services**—Provide employment services needed by existing and new businesses and industries through one coordinated source;
- **Training**—Provide training services which will include vocational-technical skills and intercultural skills needed by existing and new employers, employees and the community at large through one coordinated source.

A coordinated program including all available resources was formulated and put in place to be utilized by business and industry. The component members of this program included: the Vocational Center, Kellogg Community College, Battle Creek Unlimited (an economic development group), Michigan Department of Labor, Calhoun County Employment and Training Administration and the Michigan Employment Security Commission.

The above groups and about 15 other agencies and organizations voluntarily joined into a collaborative body called the Council for Employment Needs and Training (CENT). The Council brought together people representing the area's businesses and industries, labor, education and service agencies and others to discuss issues related to employment and manpower training needs of the area. Through cooperative effort, the Council helped to maximize the utilization of the area's education and training resources. Council goals included the implementation of an area wide Manpower Needs Survey; development of an assessment process to

aid individuals seeking career goals; establishment of an employability curriculum to help people in gaining and keeping employment; and the establishment of a communication mechanism between all service agencies and educational institutions serving the people.

Results

More than 35 contacts were made involving CAVC, Battle Creek Unlimited and prospective employers during 1979-81. More than 20 presentations have been made to more than 300 industrialists in Calhoun County to explain the CAVC's willingness to help them with economic development plans. Approximately 30 employers were trained in two-day workshops on how to work effectively with handicapped employees. The Battle Creek Board of Education (operating school district) and the Calhoun Intermediate School District (owner) approved the center's involvement with start-up programs for the Stouffer Hotel involving 150-300 trainees.

Since 1979, industry specific training and apprenticeship programs have been conducted for six companies and planned for five more. More than 150 graduates of these programs are now employed by the involved companies.

STATE OF MISSISSIPPI

Since 1975, Mississippi has developed a network of state and local coordination that ensures a trained labor force to all new and expanding industries in the state.

Organization

To deliver training service to industry, Mississippi has a three-tiered system: State Department of Education, Vocational and Technical Education Division (Vo-Tec); Research and Curriculum Unit (RCU); and the local vocational and technical centers and junior colleges.

At the state level, a coordinator of new and expanding industry works with the economic development professional throughout the state to promote both Mississippi and Vo-Tec among industries contemplating new plant locations. The coordinator also maintains liaison with the existing industries to determine their needs if and when they decide to expand their operations.

Once the decision to locate a new plant in Mississippi has been made, the focus of operation shifts to an industrial training supervisor. That person coordinates with the Research and Curriculum Unit and local vocational center to ensure that services are delivered to the satisfaction of the clients.

The Research and Curriculum Unit at the Mississippi State University provides program design support and instructional aids under a contract with Vo-Tec. Training services are usually delivered in the vocational center or junior college nearest to the client company.

An Example

When Wayerhaeuser decided in 1979 to locate its large chemical and paper plant in Mississippi, Golden Triangle Vocational Technical Center in Lourdes County was selected to provide the training services. The Center was asked to provide pre-employment training to more than 400 workers. Post-employment training was provided by Daniel's Construction Company, the firm which built the Wayerhaeuser plant in Mississippi. After post-employment training, the trainees were to be hired on skilled jobs ranging from electricians to boilermakers to millwrights. Seven separate training programs were required. Small pre-employment classes in two house trailers had already started near the construction site while plans were developed to construct a semi-permanent facility, also near the construction site. After the construction phase, the facility can be used for providing pre-employment training to Wayerhaeuser employees.

Results

Between 1975 and 1980 a total of 18,928 trainees completed industrial start-up training programs in Mississippi. Out of these, 16,123 were placed on jobs for which they were trained, providing a placement rate of more than 85 percent. In 1980 alone, 5,061 persons were enrolled in industrial training programs with 4,702 completors at an instructor cost of $385,538. At that rate, instructional costs are estimated at less than $100 per completor. No estimate of "other costs", including material, equipment and support services were reported.

SEDALIA, MISSOURI

Since its inception in 1968, the State Fair Community College (SFCC) has been actively involved with economic development interests in the community. To meet the needs of the community, SFCC has amassed a unique set of programs and linkages both within the institution and within the state.

A county-wide coordinating agency for all industrial development activities, the Sedalia Department of Economic Development (SDED) has consistently found the college responsive and flexible. SFCC provided both general and specialized industrial training in the classroom and in an industrial facility setting. In addition, it provided the personnel to articulate the services available to new and expanding industries as the need arose.

Organization

In Missouri, community colleges are governed locally by an elected governing board. At SFCC, a seven-member Board of Trustees represented a two-county area and were highly respected by the community. Each member carried clout and brought a wealth of contacts into the positions. The staff at SFCC favored this type of governance and felt the community college would lose much if it were governed by a state board of community colleges. (In other words, bigger is not better.)

The members of the board were actively involved in their policy-making roles, each taking the responsibility seriously. The administration and staff were of SFCC and carried out the board policies that were set.

Programs at SFCC were concerned with upgrading, as well as preemployment and start-up training. Program leads came from board members, instructors, administrators, agencies, organizations, students, advisory committees and directly or indirectly from business and industry. After obtaining a lead, the administrators and staff at SFCC immediately followed-up to establish the need and to begin the planning phases of the proposed program.

The Vocational-Technical School (VTS) was on the site and the administration was through the same office as SFCC, although the budgets were kept separate. This allowed for a very high level of articulation between secondary and postsecondary services.

Three SFCC staff people were designated as official industrial training liaisons. One of them was the contact person for each industry and vice-versa. They were responsible for needs assessment, funding proposals and articulation with ongoing educational programs.

Immediately after receiving a lead about the need for a new program,

a business or industry, one of the three liaisons assumed responsibility for following-up and initiating the planning phase of the program. Administration and staff members worked directly with representatives from industry and faculty members in related fields of instruction to determine specific needs, perform trade analyses and develop curriculum. Simultaneously, another administrator was pursuing funding for the special project.

Results

SFCC and Business and Industry have collaborated on many special training programs over the years. Many others are in various stages of planning. Seven of these projects represented $81.5 million in investments and 1,650 jobs opportunities. Each project also took advantage of SFCC services in more than one program, in most instances. Among the 15 special training programs conducted for local industries in 1979, 271 people were trained.

NEW YORK CITY, NEW YORK

Most small businesses fail in the first two years of their operation. For the minority communities it is even harder to make a success of a small business. Eugenio Maria de Hostos Community College, Bronx, N.Y. has been operating a training program that provides management and businesses skills to minority businesses to help them through the initial difficult period.

Organization

The training program, which was funded by the New York Department of Education, allowed the Hostos Community College to offer seminars and workshops to owners and would-be owners of small businesses. The trainees learned skills such as bookkeeping, business management, small business incorporation and business taxation. In addition, the project offered consultant services and a limited amount of counseling to small business entrepreneurs to help them solve specific problems.

Located in an area with majority of residents from minority communities, the program was specifically aimed at helping minority small business owners. In 1980, 65 percent of the participants were Hispanic and Puerto Rican, 20 percent were black and approximately half were female. The program was designed to help 500 minority business persons per year.

The approach to training was based more on common sense than on theory. With the exception of seminars on accounting and bookkeeping, all other courses, workshops and seminars were conducted by successful small business owners or minority business executives. Often, the instructors were also community leaders and thus enjoyed the confidence of participants. The instructors also helped in the counseling part of the program.

The program at Hostos Community College was coordinated by a project director who was responsible for its management. He was assisted in this task by an advisory committee. Advisory committee members were drawn from the community as well as from the federal and state agencies involved in small business development and minority community services organizations.

Results

Although empirical data on the number of small businesses helped by the program were not available, the program was considered "successful" by participants, community leaders and the government agencies that

participated in the advisory committee. In New York City the program was considered a model and was recommended for other cities with a sizable minority population.

WESTCHESTER, NEW YORK

Faced with the facts that over 50 percent of all small businesses fail within the first two years and that over 90 percent fail within ten years, the Small Business Encouragement and Rescue Program was formed. Its purpose is to provide an easier route to success for the self-employed. Prospective and current business owners were offered a selected curriculum designed to meet expressed small business needs and to improve chances for successful operation of small business. The program is operated out of Westchester Community College (WCC), the Northern Westchester Technical Center and the State University of New York (SUNY) Educational Opportunity Center. It provides the optimum use of human and economic resources at a wide range of facilities.

Organization

The program director was responsible for all aspects of the program. She was considered an employee of both the Westchester Community College and the Putnam and Northern Westchester Board of Cooperative Educational Services (BOCES). As a result, she had access to the administrative and support services of both institutions. The coordinators of the College and the Center have "sign-off" authority for the program activities. The project was funded by vocational education money with state grants administration funds for Minority Business Rescue.

The program staff assumed the role of coordinators since the success of the project depended on the following key ingredients:

1. No duplication of services offered by other agencies/organizations;
2. Individualized treatment of clients;
3. Optimum use of resources;
4. A local base;
5. Working relationships with other agencies;
6. Cooperation among the educational institutions;
7. Counseling and assessment of education and small business/self-employment skills;
8. Follow-up of clients;
9. Convenient location for obtaining services.

Over 50 agencies and organizations had a role in the planning and/or implementation of the program.

The following procedures were typical for meeting client needs: the client determined the need for assistance; program counselors identified

areas of deficiency; the clients were then advised to take course work, attend seminars, consult with another agency or whatever was most appropriate to meet their specific need.

When a need was perceived that could not be met by an existing program or service, special curriculums were designed by the project director in consultation with experts in the problem area. Courses, seminars, workshops or other group learning experiences were offered, as well as home study lessons, consultations with small business experts, technical assistance, computer services and a linkage with a network of agencies and groups that were supportive of small business enterprise.

Results

Although the program was designed to serve 100 clients, through optimum use of resources more than 798 people had enrolled in the program as of January, 1981. The participants have attended and completed courses, workshops and/or experiences suggested by the program staff.

Profit increase for the business owners versus the individual's costs will be measured. The quantifiable measure will be limited to those who are in business for at least a year and who have been able to provide accurate data over this period. At least one full business cycle is necessary before a small business can be analyzed effectively. Preliminary results indicate that in 1980 of 22 business owners surveyed, 91 percent reported an increase in business profits as a direct result of the program.

PIERCE COUNTY, NORTH DAKOTA

In a small community in North Dakota, cooperative vocational education programs are an important feature of the Rugby High School curriculum. Vocational education is providing locally marketable skills to high school students, thereby helping the youths as well as the local economy. The school works with the local businesses, most of which are agriculturally based, to determine their needs. It then plans the vocational programs to serve the needs.

Organization

Local businesses and the high school work together to meet the workforce needs of the community. The vocational director oversees all vocational training programs, of which agriculture and agri-business programs are the most popular. However, which programs are offered is determined by community needs. These needs are assessed by a survey of all business and industry in and around Rugby, North Dakota. An important feature of vocational programs is the strong emphasis on cooperative vocational training. Almost all businesses and industries participate in the cooperative programs, thus providing a valuable experience to all vocational education students. Most students after graduation take jobs with the companies they worked for as students.

Another distinguishing feature of the Rugby program is its adult education. The high school allows both youths and adults to attend vocational education courses together during the day as well as in the evening. This not only allows the adults to acquire basic and upgrading skills but also helps the school to offer a greater variety of training programs that would otherwise not be possible. The local businesses and industries cooperate fully in the adult education program by sponsoring their employees for additional training.

Results

Due to the cooperative and mutually beneficial relationship between the high school and the businesses and industries in the district, most graduates find jobs in the local area. Unemployment is very low and has stayed that way for a number of years. This speaks very well for the rural community and for the vocational training programs that it supports.

UPPER VALLEY
JOINT VOCATIONAL SCHOOL, OHIO

In November, 1978 the director of vocational education for the state of Ohio came to the Upper Valley Joint Vocational School specifically to discuss the type of industrial services needed to insure growth and expansion. This meeting included a representative group of local industrialists. It led to the development of the Industrial Training Program (ITP), which was designed to combine classroom and on-site instruction for client-industries.

Organization

The Upper Valley Joint Vocational School (JVS) is a separate school system from the other schools in the area, with its own Board of Education and superintendent. It is jointly owned by and operated for the citizens of 15 towns and the surrounding areas. Adult education, with its Second Day School, makes up a major part of the organization with 25 full-time and 120 part-time staff members. The Industrial Training Program (ITP) coordinator is responsible to the director of adult education.

ITP is a plan to provide training and related services for a flat fee. Usually the fee is $600.00 per year but it is often adjusted for the size of the participating companies. Once a business subscribes to the plan, any of its employees can take courses (retraining, upgrading, vocational or whatever) offered by JVS without paying additional tuition fees. The JVS also provides upon request training programs for groups of employees without additional fee or expense.

As one of the first steps in establishing the ITP, the industrial training coordinator identified and organized a functioning advisory committee of interested business or industrial people. With their help, a group of prospective clients was identified and an enrollment contract and materials needed to inform and orient client industries were developed. The coordinator performs the role usually assumed by an in-house training supervisor in industries large enough to justify the cost. Consequently, through the ITP many small industries can obtain the similar services at a cost they can easily afford.

Among the services offered to employers through their participation in the ITP were the following: vocational counseling with fully certified counselors, career assessment and exploration center services, vocational evaluation, testing center services, task analysis (on-site), curriculum development and planning, vocational instruction for skilled and semi-skilled areas, in-service instruction for management and skilled areas, instruction to upgrade personnel, on-site video taping to facilitate train-

ing, apprenticeship training, audiovisual equipment support, technical learning resource material support, classroom facilities available (days, evenings, weekends, one year), equipped laboratory facilities (days, evenings, weekends, one year), training contracts for specialized training programs, food service for seminars or workshops, proficiency certificates, continuing education units (CEU's), job placement, follow-up job readiness skills, other services defined by the client-industry as the need for services is identified.

Results

The JVS Second Day School has continued to grow both in program offering and in numbers of participants. In its first year in 1975, 97 adults were enrolled; in 1979, 8,731 adults were enrolled. From July 1, 1979 to June 30, 1980, 1,078 adults participated in specialized training classes, 1,614 assessment tests were administered; 1,881 people attended workshops and seminars; 735 attended short term classes; and 1,192 enrolled in full-time continuous vocational training courses.

STATE OF OKLAHOMA

The Division of Special Schools for Industry Training is one of the best examples in the country of a statewide training service provided by vocational education to new and expanding industries. The Department of Vocational and Technical Education in Oklahoma plays an important role in the economic development efforts of the state by preparing and offering special training programs. The programs are specific to industry needs and are flexible enough to be tailored to an individual company.

Organization

The Department of Vocational and Technical Education (Vo-Tech) maintains a close liaison with the development activities by maintaining two industrial coordinators in the Department of Economic Development. This affords the Vo-Tech the opportunity to establish contacts with industries at an early stage of their contemplation to expand their business in Oklahoma. By explaining and demonstrating the range and extent of training services available to industries, the industrial coordinators reinforce the economic development efforts. These efforts are initiated by the Department of Economic Development, state and local chambers of commerce and other professionals who "recruit" industries to locate their plants in Oklahoma.

Over the years, Oklahoma has acquired a reputation for delivering training services to industries efficiently and on time. The training service provided by the Special Schools Division is coordinated by a team of professionals who perform the following tasks:

1. **Employer training needs assessment.** The tasks required to determine how many persons need to be trained for what kind of jobs. Also to determine the training schedule, and the resources—equipment, instructors, and so forth—needed to deliver the training.
2. **Training program development.** The jobs for which training is required are analyzed to determine the training objectives. Task analyses, curriculum development and production of instructional materials, are important parts of this task.
3. **Delivery of training.** Most of the machines and equipment are acquired from the state equipment pool while the facilities for training are located at a site convenient to the employer. Recruiting (for pre-employment training), screening and instructor training are some of the activities prior to the delivery of the training program. Monitoring the progress of trainees during the program and evaluation of skill training at the end are some of the other activities.

4. **Post-completion follow-up.** The Special Schools Division is required to keep close liaison with the client industry at least six months after the delivery of the program. Any problem areas are identified and solutions found to solve the problems

Results

Since 1968, Vo-Tech has trained approximately 37,000 persons out of which 28,000 persons were placed in new jobs in new and expanding industries. In all, the Department serviced 270 industries that located new plants in Oklahoma.

PORTLAND, OREGON

One of the most successful partnerships between a CETA prime sponsor, a community college and a foreign manufacturer was born in 1977 in Portland, Oregon. After much negotiating, a Memorandum of Understanding was drawn up between the Portland Community College (PCC), the City of Portland (CP), and Wacker Siltronic (WS). The memo stipulated that WS would agree to sign a sole source training agreement with the city. In turn it would agree to contract with PCC's vocational education training program.

Organization

On January 3, 1979, a contract was signed with the City of Portland. In this agreement, the city agreed to provide the funds for the overall program. They were to conduct the task analyses needed to identify the skills, knowledge and abilities acquired by the trainees; and they had the responsibility of recruiting, screening, and assigning trainees to the PCC program. The city also assumed the responsibility for covering the costs of supplies and materials for the training program. The specialized training equipment, crystal slicers, growing equipment, polishing machines, and other materials were to be provided by the WS Corporation.

The contract included a detailed training schedule and was designed to accommodate three groups of trainees and three phases of training. The first phase covered such topics as basic metric measures, the history of silicon wafers and so forth. Phase II covered the job training itself in a laboratory setting, which enabled the trainees to develop hands-on experience with the actual tools and equipment provided by WS. Phase III of the training was then carried out at the new plant itself.

A facility located at the site of an abandoned shopping center in southeast Portland was acquired and remodeled to accommodate the simulated production line. The training equipment was installed by WS engineers assigned by the parent company in Germany.

The staff of the training program consisted of a project manager, a curriculum developer, nine instructors (qualified engineers), nine assistant instructors, two maintenance technicians and one maintenance helper. A unique feature of this program was the agreement between WS and PCC that the instructors would ultimately be hired by WS as managers of the trainees for whom they were responsible. Initially, 12 instructors were recruited and immediately assigned to six weeks of observation and curriculum planning in Burghausen, Germany.

Results

Initially, out of 1000 or so CETA-eligible trainees screened, 734 were referred for training. They came from all walks of life: displaced homemakers, minorities and ex-offenders. Of these, 480 were actually able to complete all three phases of the training program and 450 were eventually hired by WS.

The return on the initial investment of approximately $3.5 million of federal, state and local monies was probably substantial. Not only were several hundred new jobs added to Portland's economy but opportunities opened up for suppliers and builders, and other service companies were added as well. For those trainees who were able to move from the ranks of the unemployed to positions with a growing company, the opportunity meant considerably more than just another job.

CLINTON COUNTY, PENNSYLVANIA

The vocational program of Keystone Central School District in Clinton County, supported by the Pennsylvania Department of Education's Bureau of Vocational Education, has been a valuable asset to the community's economic development since 1972.

Organization

The industrial training programs are part of the incentives package presented to new industry and, even more, a very important part of existing industry's decisions to expand. The special programs are the responsibility of the Director of Vocational Education.

Entering into collaboration with business and industry to provide training was preceded by the vocational education director's personal visits to obtain consent and advice from them. Employers would not allow outsiders to dictate to them. Rather, they would work together with the vocational director to assess their training needs, develop customized programs and provide necessary personnel, technical assistance, special equipment and so forth. To be of greatest service to industry in Clinton County, vocational education had to be flexible, had to require a minimum of red tape and had to be designed to fit labor contracts, particularly in the closed shops. In closed shops (where workers must join the union), the recruitment was open to any employee who wanted the training. In some shops, the union also demanded control over instructional staff and bidding on jobs.

Results

One example of collaboration is the relationship between Piper Aircraft and vocational education. For years Piper took care of its own training on the job. It was reluctant to use the services of vocational education at first. After all, Piper officials reasoned, "What can a high school teach our highly trained people?" "Is it worth the hassle?" "We can't force anyone to take the course." "What about union problems?" "Incentives?" and on and on.

The director worked with company personnel to address these concerns. After much consultation, they decided to try a training program. He took care of all the paperwork. The first classes were made up almost entirely of "hopefuls" and those with the lowest grades. The classes were successful and the trainees had additional techniques, thus their jc were easier or they advanced faster. The trainees sold the program to the

others. (There are still a few holdouts—less than 10 percent—who will not take a course).

Over the years, the classes have gotten into more depth. Piper managers became staunch supporters of the program and provided materials for it. A supervisor was freed to do the instruction, and the curriculum was in a continuous state of updating. Subsequently, many special small classes were developed and run to teach special customized techniques, which the company previously subcontracted to other companies. With the help of vocational training, they now do it themselves, increasing profits substantially. More than 500 people have been trained for new jobs at Piper since vocational education became involved in special training.

Berwick Forge and Fabricating Company, an industry which renovates and builds railroad cars, has utilized vocational training programs while expanding its workforce. One hundred and fourteen people were trained in two welding courses and one railroad car building course. They were subsequently employed in newly created jobs.

In another special industrial training program, D and G Manufacturing received 41 trainees from a power sewing program.

Champion hired 95 percent of 130 trainees when first opening a carburetor rebuilding plant. It has continued to utilize these training programs and is currently developing the training programs necessary for a new plant to be opened shortly.

STATE OF SOUTH CAROLINA

In South Carolina, the State Development Board is the primary agency for economic development. In 1954, the legislature charged the Board to establish a statewide planning and economic development program to stimulate economic activity and develop the potential of the state. The governing board was and is still appointed by the governor with the consent of the senate.

The training segment of economic development is focused on two aspects: (1) undergirding the labor force with a flow of young trained people; and (2) training and retraining adults. Sixty-two percent of the manpower supply has been trained in a vocational program. The two major components which provide training are the 55 Vocational Centers and the 16 Technical Education Centers (TEC).

Organization

Special Schools for Industrial Training—Under the auspices of the State Board for Technical and Comprehensive Education, the Special Schools for Industrial Training provide much of the pre-employment training for new and expanded industries. Special Schools receive a separate line-item legislative appropriation, separating their budget from those of the post-secondary institutions. They are administered through a separate division of the state board—the Industrial and Economic Development Division.

Fourteen in-field industrial consultants work with the training programs and maintain constant contact with industries in their service areas. They as well as the rest of the special schools' staff people develop training materials, locate training sites, recruit trainees, hire instructors and arrange for payment of all training costs.

Vocational Centers—When special customized training is provided by the vocational center, the director of the center must determine the need and write a proposal outlining the project. After receiving approvals from the superintendent, school board and office of vocational education in the state department of education, the director assumes responsibility for instructors, curriculum, physical facilities and so forth.

The Kershaw County Vocational Center located near Camden, S.C. is particularly adept at serving business and industry as well as the community. The area does not have ready access to one of the Technical Education Centers, so the Vocational Center has collaborated with more than 35 local and state agencies in meeting the special needs of local employers. Initiated under a federal grant, "Operation Job Impact" is bringing education and local industry into a close working relationship.

An important objective has been to assess the potential capabilities of vocational students both secondary and adults and match them with future job requirements. The program collected basic data on students and jobs and then used computer banks to match job skills with vocational achievements. Special advisory groups comprised of representatives from the world of work, education and government played an important role in this process.

The outstanding reception of "Operation Job Impact" by employers has continued even after the federal funding ceased. Over the years, the vocational center has developed linkages which helped to produce numerous innovative and exemplary programs, including industrial contract training, college extension services, comprehensive skill training, adult literacy training, developmental education labs, programs for handicapped, disadvantaged and suspended students, summer school, career orientation for youth and job fairs.

Results

More than 800 secondary and 2,000 adult students have benefitted from "Operation Job Impact" in 1980. Well over 10,000 have participated since the program's inception 10 years ago. Formal contract training agreements have been made with: DuPont, E.I. DeNemours and Company; Goodrich, B.F. Engineering System Division; Kendall Company; Kershaw Memorial Hospital; Kershaw CETA program and Skyline Manufacturing Company.

THE CHEHALIS INDIAN RESERVATION, WASHINGTON

Launched in 1973, the Indian Action Program (IAP) of the Bureau of Indian Affairs, provides funding and technical assistance to approximately 156 tribes around the country. Its aim is to improve the standard of living and to provide economic opportunities among Indian people on reservations and in Indian communities. The Confederated Tribes of the Chehalis Reservation, located near Oakville, Washington, invested part of their IAP contract monies in the formation and equipping of the Chehalis Indian Tribal Enterprises (CITE). The principal purpose of CITE is to train young men on the reservation in construction trade skills. As a result, some ten to twelve tribal members are now qualified to work at various building trades on and off the reservation.

The events leading up to the formation and operation of CITE did not happen by chance, nor did the program get implemented without some struggle. The achievement, however, reflects what can be done even in rural areas when a dedicated group of leaders adequately plan and find support for their long range goals.

Organization

Every two years the tribal members elect a Business Committee whose responsibility it is to oversee and manage all tribal property, administer contracts and enforce tribal ordinances. This five member committee oversees the Tribal Community Center, its day care and Headstart programs and its construction company (CITE). Founded in 1977, CITE proved to be an important adjunct to the Tribal Council's self-help effort.

By passing a special ordinance establishing a separate board with bonding authority, the Tribal Council put CITE in operation. A Small Business Administration (SBA) bonding authority helped it to obtain bonding. Sixteen trainees were recruited and a superintendent of construction (and full-time trainer) hired. Construction projects on and off the reservation were bid on and won. Projects on the reservation served as the primary vehicle for on-the-job training (OJT). CITE's initial projects consisted of constructing tool sheds, a concession stand, a quonset hut, and miscellaneous small projects such as tool boxes, picnic tables and so forth. Classroom instruction was offered during periods of "leaves of absence" at which time trainees received no pay, a concession to IAP, which does not permit the co-mingling of private and public funds.

Results

By the end of September, 1978, CITE had successfully completed $77,000 worth of on and off-reservation projects and were underway with another $220,000 of externally funded projects. Some 2,000 hours of OJT experience were logged by ten trainees in addition to approximately two years of classroom training. Most trainees have been certified as blueprint readers, business math grads and so forth, by a local community college. The program continues to this day to be a highly successful and profitable economic development effort.

WISCONSIN RAPIDS, WISCONSIN

Businesses, industries and communities have found that investment in human resources pays dividends in terms of a more productive work force. This linkage and investment has had an impact on Wisconsin's economic development. To facilitate these linkages, the Business and Industry Liaison (BAIL) program was initiated about five years ago. The program was created to meet the needs of community economic development activities and the needs of existing employers and business people for technical assistance.

The BAIL coordinator at the Mid-State Technical Institute (MTSI) in Central Wisconsin works with top-level management in business and industry in amplifying vocational education and its potential to serve employers. She also works with entrepreneurs and small business people and with the educational institutions. She works to provide assistance on a one-to-one basis or in-plant training when formal on-going courses are not appropriate solutions.

Organization

In Wisconsin, colleges and universities are responsible for bachelor and advanced degree programs, and technical institutes are responsible for associate degree programs. Economic development activities are viewed as the responsibility of the technical institutes since training for labor demands is usually hands-on, technically related and less than four years in duration.

Mid-State Technical Institute is involved in the economic development process in a variety of ways including:

- Providing full-time associate degree and vocational diploma programs that are technically current and in demand;
- Providing in-plant training for workers already employed by existing industry;
- Providing pre-employment training that is conducted for prospective employees before a new plant opens or an existing one expands or relocates;
- Providing retraining of employees to update them for changes resulting from technological innovations;
- Providing training programs, courses, and seminars to aid business owners/managers in the marketplace;
- Expanding and upgrading employment opportunities by providing technical assistance to business and industry;
- Providing training and support services to inventive, creative, and/or innovative entrepreneurs;

- Making the existing data base available for local business and industry as a central source for referrals and assistance.

Results

The economic development programs at Mid-State Technical Institute is an integral part of development in central Wisconsin. Specifically, linkages and cooperative efforts have involved a great many individuals and groups, including:

- Wisconsin Rapids Area Chamber of Commerce—Recruitment for four industries; served as linkage between entire business community and MSTI; Co-sponsored training sessions serving 180 people during 1980.
- Central Wisconsin Chamber of Commerce—Co-sponsored programming that attracted 200 persons in 1980; industry retention visits with chamber and 36 businesses in 1980; industry recruitment efforts for four industries.
- Marshfield Area Chamber of Commerce—Co-sponsored activities for 28 persons in 1980.
- University of Wisconsin Extension—MSTI joint brochure for business offerings mailed to 2,000 persons; Small Business Administration/Service Corps of Retired Executives/Active Corps of Executives (SBA/SCORE/ACE) Prebusiness Workshops, co-sponsored activities attracting 80 people in 1980.
- Economic Development—Provided one-to-one technical assistance to seven businesses in 1980; provided training in Community/Economic Development for 300 persons in 1980.

Appendix C

EMPLOYMENT TRAINING AND NEEDS SURVEY

Report full time (or full time equivalent) jobs by occupation. This survey concerns only jobs requiring high school, vocational, community college, apprenticeship or on the job training (not professional or managerial jobs)

EMPLOYMENT AND TRAINING NEEDS SURVEY

If you require assistance or have questions regarding this survey please contact Douglas Vesher at 965 3931 Ext 217

Name of Company ______ Address of Company ______ Principal Product or Service ______ Total number of employees ______ Name and title of person completing form ______ Name of Personnel Director ______

CRAFTS AND KINDRED OCCUPATIONS	1 Number now employed	2 Number vacancies		3 Estimated number needed in next 3 years		4 Is this a (check all which apply)			5 Required training level (check one)					6 Would you be interested in working with local educational institutions and service agencies? (check all which apply)			
		Current	Projected openings in 6 months	Expansion	Replacement	Hard to fill job?	High Turn over job?	New Emerging job?	On the job	Vocational	Technical 2 year degree	Apprentice	4 year degree	To develop curriculum for training	To develop on the job or apprenticeship program	To develop on site class training to upgrade skill levels of employees	As a source of hiring for trained employees
CONSTRUCTION CRAFTS WORKERS																	
bulldozer operators																	
carpenters																	
electricians																	
excavating & grading machine operators																	
painters construction & maintenance																	
plumbers and pipe fitters																	
other construction crafts workers																	
METAL CRAFTS WORKERS (EXCEPT MECHANICS)																	
job and die setters metal																	
machinists																	
millwrights																	
molders metal																	
sheetmetal workers and tinsmiths																	
tool and die makers																	
other metal craft workers																	
MECHANICS REPAIRERS AND INSTALLERS																	
automobile body repairers																	
automobile mechanics																	
heavy equipment mechanics incl diesel																	
household appliance mechanics																	
other mechanics repairers & installers																	
PRINTING TRADE CRAFTS WORKERS																	
compositors and typesetters																	
printing press operators																	
other printing crafts workers																	
TRANSPORTATION AND PUBLIC UTILITY CRAFTS																	
telephone installers and repairers																	
other transportation and utility workers																	
OTHER CRAFTS AND KINDRED WORKERS																	
[illegible]																	
stationary engineers																	
other crafts and kindred workers																	

*CAVC Calhoun Area Vocational Center CETA Comprehensive Employment Training Act Mid Counties Employment and Training Consortium KCC Kellogg Community College

ALL REPLIES WILL BE KEPT CONFIDENTIAL

Report full time (or full time equivalent) jobs by occupation. The survey concerns only jobs requiring high school, vocational, community college, apprenticeship or on the job training (not professional or managerial jobs)

EMPLOYMENT AND TRAINING NEEDS SURVEY

If you require assistance or have questions regarding the survey, please contact Douglas Vethek at 965-2531 Ext. 217

Name of Company | Address of Company | Principal Product or Service | Total number of employees | Name and title of person completing form | Name of Personnel Director

OPERATIVES OCCUPATIONS	1 Number now employed	2 Number vacancies: Current	2 Number vacancies: Projected openings in 6 months	3 Estimated number needed in next 3 years: Expansion	3: Replacement	4 Is this a (check all which apply): Hard to fill job?	4: High Turnover job?	4: New Emerging job?	5 Required training level (check one): OJT	5: Vocational	5: Tech. & 2 year degree	5: Apprenticeship	5: 4 Year degree	6 Would you be interested in working with local educational institutions and service agencies? (check all which apply): To develop curriculum for training	6: To develop on the job or apprenticeship program	6: To develop on site class training to upgrade skill levels of employees	6: As a source of hiring for trained employees
[illegible]																	
furnace tenders, smelters & pourers																	
grinding machine operatives																	
lathe and milling machine operatives																	
punch and stamping press operatives																	
welders and flame cutters																	
other semi-skilled metalworking operators																	
SEMI-SKILLED PACKING AND INSPECTING OPERATORS																	
checkers, examiners and inspectors, mfg																	
packers and wrappers, except meat & prod																	
other semi-skilled packing & inspecting																	
OTHER OPERATIVES EXCEPT TRANSPORT																	
assemblers																	
cutting operatives, other																	
filers, polishers, sanders & buffers																	
garage workers and gas station attendants																	
laundry & dry cleaning operatives, other																	
meat cutters and butchers, except mfg																	
painters, manufactured articles																	
other machine operatives																	
other operatives																	
TRANSPORT EQUIPMENT OPERATIVES																	
bus drivers																	
delivery and route workers																	
forklifts and tow motor operatives																	
railroad brake operators and couplers																	
truck drivers																	
other transport equipment operatives																	

*CAVC Calhoun Area Vocational Center CETA Comprehensive Employment Training Act Mid Counties Employment and Training Consortium KCC Kellogg Community College

ALL REPLIES WILL BE KEPT CONFIDENTIAL

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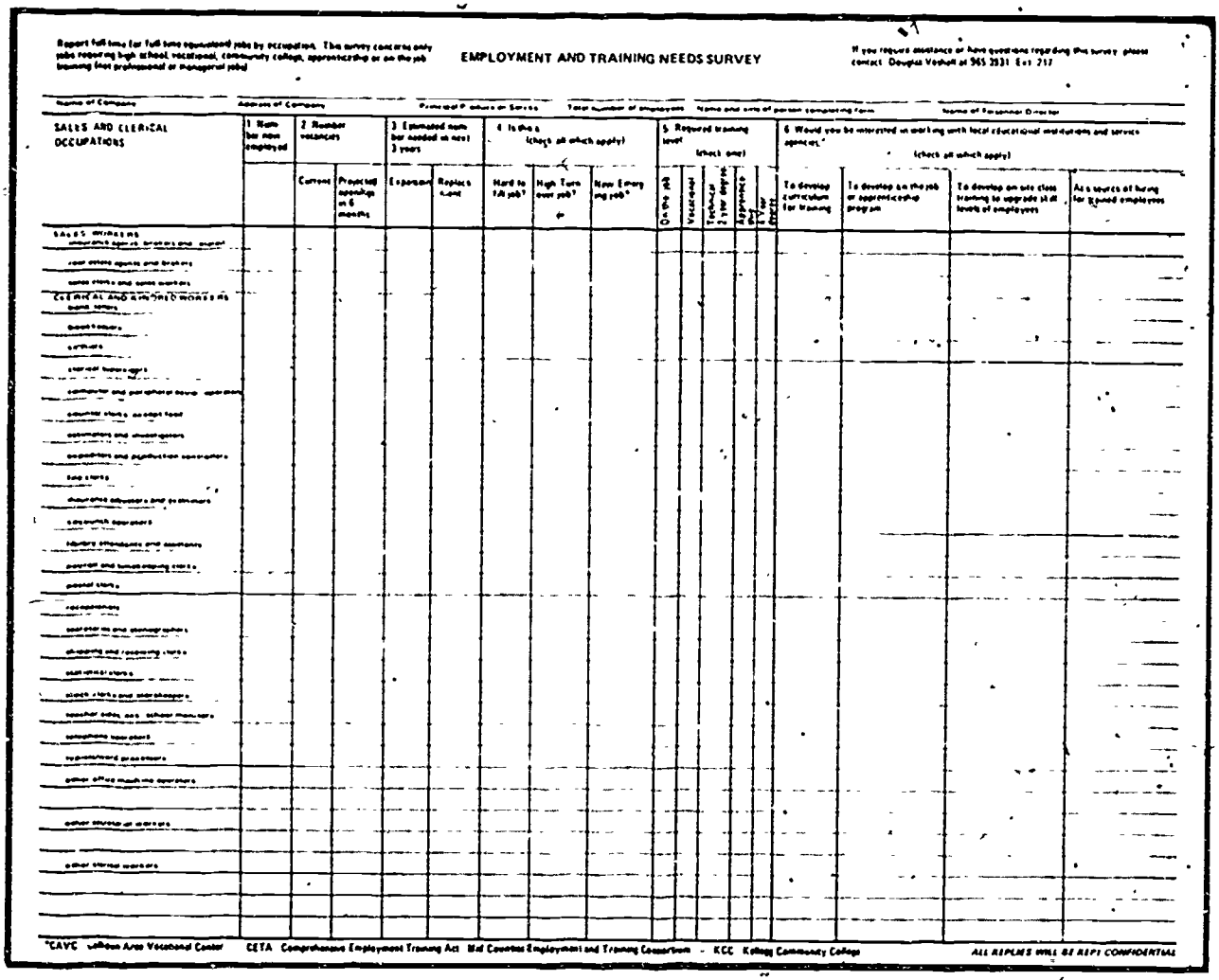

Report full-time (or full-time equivalent) jobs by occupation. This survey concerns only jobs requiring high school, vocational, community college, apprenticeship or on the job training (not professional or managerial jobs)

EMPLOYMENT AND TRAINING NEEDS SURVEY

If you require assistance or have questions regarding this survey, please contact Douglas Voshall at 965 2931 Ext 217

Name of Company | Address of Company | Principal Product or Service | Total Number of Employees | Name and title of person completing form | Name of Personnel Director

SALES AND CLERICAL OCCUPATIONS	1 Number now employed	2 Number vacancies: Current	2 Number vacancies: Projected openings in 6 months	3 Estimated number needed in next 3 years: Expansion	3 Estimated number needed in next 3 years: Replacement	4 Is this a (check all which apply): Hard to fill job?	4 Is this a (check all which apply): High Turnover job?	4 Is this a (check all which apply): New Emerging job?	5 Required training level (check one): On the job	5 Required training level (check one): Vocational	5 Required training level (check one): Technical 2 Year Degree	5 Required training level (check one): Apprentice	5 Required training level (check one): Other	6 Would you be interested in working with local educational institutions and service agencies? (check all which apply): To develop curriculum for training	To develop on the job or apprenticeship program	To develop on site class training to upgrade skill levels of employees	As a source of hiring for trained employees
SALES WORKERS																	
real estate agents and brokers																	
sales clerks and sales workers																	
CLERICAL AND KINDRED WORKERS																	
bank tellers																	
cashiers																	
clerical																	
computer and peripheral equip. operators																	
counter clerks, except food																	
dispatchers and starters																	
expediters and production controllers																	
file clerks																	
interviewers, admissions and examiners																	
keypunch operators																	
library attendants and assistants																	
payroll and timekeeping clerks																	
postal clerks																	
receptionists																	
secretaries and stenographers																	
shipping and receiving clerks																	
stock clerks																	
teacher aides, exc. school monitors																	
telephone operators																	
typists/word processors																	
other office machine operators																	
other clerical workers																	
other clerical workers																	

*CAVC - Calhoun Area Vocational Center CETA - Comprehensive Employment Training Act Mid Counties Employment and Training Consortium - KCC - Kellogg Community College

ALL REPLIES WILL BE KEPT CONFIDENTIAL

Report full time (or full time equivalent) jobs by occupation. The survey concerns only jobs requiring high school, vocational, community college, apprenticeship or on the job training (not professional or managerial jobs)

EMPLOYMENT AND TRAINING NEEDS SURVEY

If you require assistance or have questions regarding this survey, please contact Douglas Voshell at 965-3931 Ext. 217

Name of Company ____ Address of Company ____ Principal Product or Service ____ Total number of employees ____ Name and title of person completing form ____ Name of Personnel Director ____

SERVICE OCCUPATIONS	1. Number now employed	2. Number vacancies: Current	2. Number vacancies: Projected openings in 6 months	3. Estimated number needed in next 3 years: Expansion	3. Estimated number needed in next 3 years: Replacement	4. Is this a (check all which apply): Hard to fill job?	High Turn over job?	New Emerging job?	5. Required training level (check one): On the job	Vocational	Technical 2 year degree	Apprentice Prog.	1 Year CETA	6. Would you be interested in working with local educational institutions and service agencies? (check all which apply): To develop curriculum for training	To develop on the job or apprenticeship program	To develop on site class training to upgrade skill levels of employees	As a source of hiring for trained employees
CLEANING SERVICE WORKERS																	
building interior cleaners, other																	
janitors and sextons																	
lodging quarters cleaners, except private																	
private household cleaners and servants																	
FOOD SERVICE WORKERS																	
bartenders																	
cooks, except private household																	
dishwashers																	
food counter and fountain worker																	
waiters																	
waiters' assistants																	
other food service workers, except private																	
HEALTH SERVICE WORKERS																	
dental assistants																	
health aides, except nursing																	
nursing aides, orderlies and attendants																	
practical nurses																	
other health workers																	
PERSONAL SERVICE WORKERS																	
barbers																	
child care workers																	
hairdressers and cosmetologists																	
housekeepers, except private household																	
school monitors																	
other personal service workers																	
PROTECTIVE SERVICE WORKERS																	
fire fighters																	
guards																	
police and detectives																	
other protective service workers																	
LABORERS																	
construction laborers, other																	
farm laborers																	
freight and material handlers																	
gardeners and groundskeepers, except farm																	
stock handlers																	
vehicle washers and equipment cleaners																	
other laborers																	

*CAVC Calhoun Area Vocational Center – CETA Comprehensive Employment Training Act Mid Counties Employment and Training Consortium KCC Kellogg Community College

ALL REPLIES WILL BE KEPT CONFIDENTIAL

Appendix D

INSTRUCTIONAL METHODS

METHOD OF INSTRUCTION: DEMONSTRATION METHOD

DEFINITION: An accurate portrayal of the precise actions necessary to perform skills or processes.

APPLICATIONS	QUALIFICATIONS
—Use with on-the-job course. —Most useful in teaching motor skills, simple manual skills or processes, and foreign languages or other verbal chains: —To set the standard of performance. —To focus attention upon basic procedures. —To provide overviews or set goals of instruction.	—The demonstrator must be a skilled performer who is able to verbally explain each step being demonstrated. This may require many hours of practice. —Since the student does not perform during a demonstration, you cannot evaluate the student's learning except through questioning.

GUIDELINES FOR USE

Have an expert make demonstration using actual equipment or apparatuses the student will use on the job.

Simultaneously provide simple explanation of the ongoing procedure as it is being performed. Tell the "why" as well as what is being performed. Point out critical aspects of the procedure.

Provide repetition of complex operations.

Immediately follow by supervised practice. If immediate practice is not feasible, ask students to verbally describe the performance or process. (See Performance Method)

Source: "Preparing Training Materials, Determining Types of Instructional Methods and Media VIII-C," Research and Curriculum Unit for Vocational-Technical Education, Mississippi State, Mississippi.

METHOD OF INSTRUCTION: DISCUSSION METHOD

DEFINITION: Interaction between students and/or an instructor in order to analyze, explore, and/or debate an issue, topic, or problem.

APPLICATIONS	QUALIFICATIONS
—Intermediate and final stages of learning. —Use in formal course. —Use as an extension of existing knowledge or to clarify and amplify familiar material. —Use when students must learn to identify and solve problems, and to frame their own decisions. —Use when students need to be exposed to a variety of approaches, interpretations, and personalities. —Use when teamwork is needed.	—Time consuming and limited by class size. —Requires that participants have sufficient background so that they can talk about subject. —Avoid using group discussions in early stages of learning when new material is being introduced; students are new and inexperienced in topic area.

GUIDELINES FOR USE

Know the subject matter to be discussed.

Verbally outline the specific problem or issue or provide a case study of the situation to be read prior to the discussion.

Call upon individuals to clarify, analyze, and summarize.

Guide the discussion; do not lecture!

Be patient with group's slow progress to understanding.

Be alert to group's tendency to wander.

METHOD OF INSTRUCTION: LECTURE METHOD

DEFINITION: A discourse given before a class or an audience for instructional purposes.

APPLICATIONS	QUALIFICATIONS
—Early stage of learning. —Use in a formal course. —Use if time is short and many ideas must be presented. —Use if number of instructors is limited and an instructor is responsible for a large number of students. —Use with all types of courses.	—Limits student participation. The lecture becomes a "telling session" for the instructor. —Checking student learning prior to testing is difficult. —Student attention and interest may wander.

GUIDELINES FOR USE

Prepare an outline or plan in advance.

Organize the material into meaningful topics to promote understanding.

Use visual aids to express abstract concepts or to show relationships.

Allow time for a question-and-answer period to clarify points of confusion.

METHOD OF INSTRUCTION: RECITATION METHOD

DEFINITION: A discourse by the student before an instructor in which the student relates what was learned through previous study.

APPLICATIONS	QUALIFICATIONS
—Intermediate and final stages of learning. —Use in formal course. —Useful for assessment of learning by the instructor. —Useful for providing feedback to the student. —Most useful for verbal content and concepts. —Having to explain or paraphrase information to others, the student is forced to analyze the material at a deeper level.	—Learning for recitation may be rote. —Participation of other students not reciting is limited and their attention and interest may wander. —In correspondence courses, recitation may take the form of written discourse which the student mails into an instructor.

GUIDELINES FOR USE

Tell the students well in advance that they will be assessed by an oral recitation. If students are not prepared to recite, the method has little value.

Be sure that instruction and assignments prior to recitation are at the proper level for the students. There must be some assurance that all members of the class can in fact learn the material prior to recitation.

Allow time for a question and answer session. This allows an opportunity for the student to get feedback on performance and allows an opportunity for you to further assess the student's learning.

METHOD OF INSTRUCTION: PEER TRAINING METHOD

DEFINITION: A student who has completed training acts as an instructor to another student. (During teaching, the student instructor may use any one or more of the several methods contained in this directory, e.g., lecture, demonstration, etc.) Upon reaching proficiency, the trainee also instructs other students in the skills or processes to be learned.

APPLICATIONS	QUALIFICATIONS
—All stages of learning provide a one-to-one instructor-student relationship by using students to instruct other students. A student watches an expert work, gets one-to-one tutoring in the same work unit, and upon passing proficiency performs the newly learned task for the next student and instructs in the work unit. —Use with on-the-job course and formal course.	—Instruction should be spot checked in order to maintain quality control.

GUIDELINES FOR USE

Initially the student watches as an advanced student performs all job duties under supervision.

After familiarization, the student is instructed in the skills necessary to perform the job.

Upon passing all proficiency tests, the student becomes an instructor of a third student.

METHOD OF INSTRUCTION: PROGRAMMED SELF-INSTRUCTION METHOD

DEFINITION: Instructional materials are prepared specifically to employ techniques of programming. Classical programmed instruction variables include small steps, carefully sequenced and cued to reduce errors; immediate feedback; and freedom on the part of the student to vary rate of learning.

APPLICATIONS	QUALIFICATIONS
—All stages of learning. —Use with formal course, correspondence course, or field-training detachment. —Useful in accommodating individual differences in rate of learning. —Useful if scheduling is a problem as students may work through materials when convenient. —To provide uniformity of instruction as all students may progress through same material. May be the sole source of instruction or may supplement other methods of instruction.	—Once developed, programmed materials are difficult to change. Everyone goes through the same sequence and this creates a degree of inflexibility. —Development cost is high. —Some students using programmed instruction object to lack of social interaction.

GUIDELINES FOR USE

Be sure the student has all the material, equipment, or devices to complete the program.

Be sure that the student understands that the program is not a test. Responses made during the program are to help learn and not to provide a basis for grading.

Be available to handle those areas of the progra. when the student is having difficulty.

Periodically check the student's progress.

METHOD OF INSTRUCTION: PERFORMANCE METHOD

DEFINITION: Student practices, performs, and applies, under controlled conditions and close supervision, the skills or knowledges which have been previously explained and demonstrated.

APPLICATIONS	QUALIFICATIONS
—Intermediate and final stages of learning. —Use in on-the-job courses, formal course, and field-training detachment. —To permit the student to apply learning to actual situations. —To allow practice with job-similar conditions, under supervision and guidance. (See Simulation Method) —For verbal learning, problem solving or rule using, performance may be recitation (See Recitation Method) or take the form of a written report.	—It is time consuming because students must be given the opportunity to practice until they reach proficiency. —May require special facilities and equipment which may be expensive and difficult to obtain. Once obtained, equipment must be constantly maintained. —Usually requires a higher student/instructor ratio than other methods of instruction. (See Peer Training Method)

GUIDELINES FOR USE

Plan student skill development from the simple to the complex.

Provide explicit instructions for the student to follow when practicing.

Provide safety precautions for the protection of the student and equipment.

Set up realistic work problems. (See Simulation Method)

METHOD OF INSTRUCTION: SIMULATION METHOD

DEFINITION: Representation of some aspects of reality (either a process, event, or hardware) by symbols or devices that can be manipulated more readily than their actual counterparts. (See also Performance Method)

APPLICATIONS	QUALIFICATIONS
—All stages of learning. —Use with formal course. —To provide analogous circumstance. —To allow practice and feedback under low-risk circumstances. —May be programmed to work as a self-instructional device. (See Programmed Self-Instructional Method) —Allows hands-on learning rather than more mediated forms of learning.	—Developmental costs may be high and time consuming. Special facilities and equipment may be expensive and difficult to obtain. Once obtained, equipment must be constantly maintained. —Usually requires a higher student/instructor ratio than other methods of training. (See Peer Training Method)

GUIDELINES FOR USE

During the early stages of learning a low degree of realism is required. The learner is merely expected to learn nomenclature, identify locations of objects, identify properties of objects, identify appropriate actions for a given situation, etc.

During the intermediate stages of learning moderate degrees of learning are required. The learner is expected to perceive information in larger blocks or patterns and begin to coordinate skills.

During the final stages of learning a high degree of realism is required. The learner is expected to perform as on the job.

METHOD OF INSTRUCTION: INDEPENDENT STUDY METHOD
DEFINITION: Assigned readings or research which the student undertakes without special guidance or instruction.

APPLICATIONS	QUALIFICATIONS
—Final stage of learning. —Use with all types of courses. —As an adjunct to other methods of instruction. —To improve an individual's present job performance. —To prepare an individual for promotion. —To allow a student to pursue a special interest not shared by other students.	—Student must be capable of setting goals and arriving at a means of achieving them.

GUIDELINES FOR USE

Provide the student with a reading list tailored to special needs.

Provide the student with a statement of objectives which specify what to accomplish.

Devise means of evaluating learning, e.g., written or oral tests, performance test.

Appendix E

SAMPLE BUDGET FORMAT

Facilities		
Rent, renovation, or construction	$_____	
Customizing and restoration	$_____	
Costs related to health and safety	$_____	
Utilities, including installation charges	$_____	$_____ Subtotal
Administration		
Salaries and Benefits		
Administrator	$_____	
Coordinator	$_____	
Support Staff	$_____	
Travel	$_____	
Office Operators		
Supplies	$_____	
Furniture and equipment	$_____	
Space rental	$_____	
Communications		
Telephones	$_____	
Postage	$_____	
Duplicating	$_____	
Public relations, promotion, advertising, recruiting	$_____	$_____ Subtotal
Staff		
Salaries and Benefits		
Instructors	$_____	
Aides	$_____	
Curriculum Developers	$_____	
Media Specialists	$_____	
Consultants	$_____	
Materials and Supplies	$_____	$_____ Subtotal
Instructional Costs		
Equipment		
Major: purchase, rent, lease	$_____	
Minor: purchase, rent, lease	$_____	
Tools	$_____	
Audio/Visual	$_____	
Materials and Supplies	$_____	
Transportation and set-up costs	$_____	
Printing and Media Supplies	$_____	$_____ Subtotal
Indirect Costs	$_____	$_____ Subtotal $_____ TOTAL

Appendix F

SAMPLE CONTRACT

UPPER VALLEY JOINT VOCATIONAL SCHOOL DISTRICT
THE SECOND SCHOOL DAY
EDUCATIONAL CONTRACT SERVICE

To provide growth in the occupational competencies of our employees, _____ enters into this TRAINING CONTRACT with the Upper Valley J.V.S. SECOND SCHOOL DAY to provide the educational services described below.

The title of the program shall be _____. The class shall meet regularly from _____ to _____ A.M. ☐ P.M. ☐, on _____ of each week for _____ weeks, beginning on _____, totaling _____ hours of instruction.

The J.V.S. SECOND SCHOOL DAY agrees to administer and supervise the program and provide the following services.

Equipped Training Laboratory	☐	Audio-Visual Equipment	☐	Educational Supplies	☐
Assessment of Achievement	☐	Textbooks & Materials	☐	Curriculum Planning	☐
Certificated Instructors	☐	Classroom Facilities	☐	Support Personnel	☐
Tool Room Service	☐	Other: _____	☐		

The _____ (Company or Organization) agrees to provide:

A. The desired objectives for the training course.

B. The enrollees to form the class.

C. The items identified above, but not checked.

D. Other _____.

_____ agrees to pay $_____ per hour of instruction for each hour the class is in session.

_____ also agrees to pay the cost of the books, the laboratory costs, and other expenses incurred by each enrollee. Yes ☐ No ☐

This contract shall be considered as an invoice upon completion of the program.

Summary of cost as per this agreement:

Cost of Instruction _____ hrs. @ _____ = _____

Cost of Books _____ @ _____ = _____

Lab Expenses _____ @ _____ = _____

Other _____ @ _____ = _____

TOTAL OF THIS CONTRACT _____

SIGNED _____ Name _____ Position _____ Assistant Director, Adult Ed.

_____ Name _____ Position Superintendent, Upper Valley JVSD

Date _____ 19_____

FORM SSD-1