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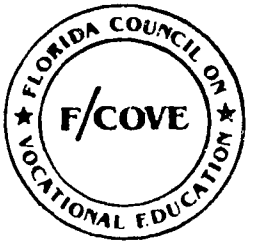
ABSTRACT

A study examined employers' views regarding factors facilitating and obstructing the success of school-to-work transition programs (SWT) programs and ways of facilitating public and private sector participation in SWT programs for Florida's noncollege-bound youth. A literature review and multiple case studies of established youth apprenticeship (YA) programs in Jacksonville and Alabama were conducted. The case studies included reviews of numerous written documents and reports and personal interviews of 10 participating employers, 8 former participating employers, and 9 program administrators currently or previously involved in the YA programs. Of the 18 employers interviewed, 16 considered participation in YA programs a cost-effective method of training employees. Employers also perceived YA programs as a source of good employees and a way of promoting a positive image. Perceived barriers to participation included student workers' immaturity or poor attitudes, lack of retention guarantees after training resources have been expended, time required for paperwork and program development/implementation, and limits of insurance coverage for underage workers. The following actions were recommended as ways of facilitating transition: implement public relations and marketing activities, address immaturity and attitude problems among youth, provide scheduling alternatives, improve student placements, implement employer incentive programs, reform administrative procedures, and reorganize governance. (Contains 56 references.) (MN)

The Potential Implementation of Youth Apprenticeship Programs in Florida



The Florida Council on Vocational Education

June 1994

THE POTENTIAL IMPLEMENTATION

OF

YOUTH APPRENTICESHIP PROGRAMS

IN FLORIDA

FLORIDA COUNCIL
ON VOCATIONAL EDUCATION

June 1994

Copies of this report are available upon request from:

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PREFACE

The Florida Council on Vocational Education (F/COVE) maintains that all Floridians have the right to high quality and effective vocational education programs. The Council provides guidance to the State Board for Career Education on policy matters which will ensure that vocational education programs, services, and activities are available to all persons who need and can benefit from them.

The fourteen members of F/COVE, who were appointed by the State Board for Vocational Education, provide the Council with a broad range of expertise and experience in both public and private sectors.

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 provides state councils on vocational education the opportunity to "make recommendations to the State board and make reports to the Governor, the business community, and general public of the State, concerning . . . initiatives and methods the private sector could undertake to assist in the modernization of vocational education programs; . . . submit recommendations to the State board on the conduct of vocational education programs conducted in the State which emphasize the use of business concerns and labor organizations; . . . recommend procedures to the State board to ensure and enhance the participation of the public in the provision of vocational education at the local level within the State, particularly the participation of local employers and local labor organizations; and . . . report to the State board on the extent to which individuals who are members of special populations are provided with equal access to quality vocational education programs." [Section 112 (d)(2)(C), (5), (7), and (8)]

This study, therefore, was authorized to determine from the perspective of employers what factors contribute to the success of school-to-work transition programs, what factors act as barriers to employers' participation, and what recommendations could be generated to facilitate public and private sector participation in school-to-work transition programs for non-college bound youth in Florida.

It is the desire of the Florida Council on Vocational Education that this paper will aid in ensuring that the educational needs of youth and adults are met in Florida.

The Florida Council on Vocational Education is pleased to extend its appreciation to William E. Harris, Ed.D., who designed the study, reviewed the literature, and conducted the fieldwork on which this project was based. The Council utilized information derived from the study to develop its own recommendations to facilitate school-to-work transition.

THE POTENTIAL IMPLEMENTATION OF YOUTH APPRENTICESHIP TRAINING IN FLORIDA

INTRODUCTION

According to a report issued by the National Center for Education and the Economy, *America's Choice: High Skills or Low Wages* (1990), the United States may have the worst school-to-work transition system of any industrialized nation. Other industrialized countries use comprehensive policies and procedures to assist youth in making a transition into the work force. For instance, Germany and other European countries make extensive use of national systems involving youth apprenticeships to enable youth to perform the school-to-work transition more effectively. The operation of an effective transition system results in enhanced productivity for the youth participants, for business and industry, and for the general economy of the respective nation (U.S. General Accounting Office, 1990).

Origin of the School-to-Work Transition Problem

Although much of the blame for the nation's ill-prepared youth work force is being laid at the doorstep of public education, the business community and state and national governments must all share part of the responsibility for the school-to-work transition problems experienced by American youth.

A national blue ribbon committee of education and business leaders called the Secretary's Commission on Achieving Necessary Skills [SCANS] (1991) completed a recent study and report entitled *What Work Requires of Schools*. SCANS reported that the public education system did not provide youth with sufficient basic skills and identified foundation skills and competencies that are needed by youth in a competitive labor market.

In discussing current instructional delivery systems, the SCANS report concluded (p. xv):

> We believe, after examining the findings of cognitive science, that the most effective way of learning skills is "in context," placing learning objectives within a real environment rather than insisting that students first learn in the abstract what they will be expected to apply.

It must be noted however that "in context" instructional opportunities are not readily available for most non-college bound youth. As of 1987, more than 80 percent of employers in the United States had no affiliation or communication with the public education system, despite a substantial amount of literature available on the benefits of partnership participation (Mann, 1987a).

Blame for the nation's ill-prepared youth work force must be shared by public and private sector employers. As a group, American employers are perceived to be more self-serving and shortsighted than their counterparts in other industrialized countries (Portera, 1987). Here, it is common practice to place entry level youth in dead-end, low-paying jobs and to invest as little as possible in training and developing a competent work force (Hamilton, 1990). The majority of employers are not willing to invest in training youth for career positions. Instead, employers tend to wait until people are in their twenties before hiring them for primary positions, citing a need to acquire employees with maturity and stability (Osterman, 1980).

The majority of non-college bound youth therefore experience a period of struggle with no direction lasting from two to five years without recognition or reward for their education credentials. Studies have shown that this floundering period does little to improve technical and basic skills and may actually have a negative effect on worker values (Greenberger and Steinberg: cited in Hamilton, 1990). Besides the obvious loss of productivity, social problems may also result. While in school, youth are continuously told that if they behave while they are adolescents they will be rewarded as adults. As this promise breaks down, a distrust in society may develop, resulting in a disregard for other values of society (Blyth, 1987).

In addition to the lack of a national school-to-work policy, there has traditionally been little assistance for youth making transitions to the world of work from the United States government. Employment assistance offices in the United States have a history of catering to disadvantaged populations and the hard to employ. Employment offices are, therefore, the last place most employers go to seek employees for potential career positions (Hamilton, 1987).

Research Rationale

An effective school-to-work transition system is beneficial to youth entering the work force, to society, and to the national economy. However, little research has been reported concerning the implementation of effective school-to-work transition programs for typical non-college bound youth in this country. What research has been reported concerning youth transition programs and related areas, such as school and business partnerships, has primarily been prepared from the perspective of government and public education.

In many respects, school-to-work transition programs are more complicated than many other types of partnership activities, since the implementation of a transition program requires a change in the operating procedures on the part of both schools and employers. Research has shown that companies which are generally willing to engage in other partnership activities such as donations of personnel and resources are less willing to allow students and teachers into their work places (Eltinge & Glass, 1988).

In discussing problems related to establishing an expanded system of school and business partnerships, Mann (1987a) observed a widespread lack of private sector involvement at the roots.

> Beyond taxes, no enforceable code of social responsibility for corporations exists. . . . If we wish to stimulate public/private interaction, we must ask the 80 percent of firms that have no identifiable presence whatsoever in the schools, Why not? (p. 125)

There is an obvious need for research in this area. The perceptions of corporate leadership concerning their involvement in education must be identified, as must methods of measuring success that are meaningful to both groups (Levine, cited in Ascher, 1988).

Purpose of Study

The purpose of this study was to determine from the perspective of employers what factors contribute to the success of school-to-work transition programs, what factors act as barriers to employers' participation, and what recommendations could be generated to facilitate public sector and private sector participation in school-to-work transition programs for Florida non-college bound youth.

Defining School-to-Work Transition

All events in a person's life have some effect on all other events. It can therefore be argued that childhood experiences, K-12 education, environment, socio-economic status, adult career choices, and other life activities, all affect the school-to-work transition. However, for purposes of this study the period of life to be considered will be limited to the period during high school through the first two to three years following high school. This view is consistent with the following definition provided by Will (1984).

> The transition from school to working life is an outcome-oriented process encompassing a broad array of services and experiences that lead to employment. Transition is a period that includes high school, the point of graduation, additional postsecondary education or adult services, and the initial years in employment. Transition is a bridge between the security and structure offered by the school and the opportunities and risks of adult life. Any bridge requires both a solid span and a secure foundation at either end. The transition from school to work and adult life requires sound preparation in the secondary school, adequate support at the point of school leaving, and secure opportunities and services, if needed, in adult situations (pp. 6-7).

The primary value of a well structured school-to-work transition program is defined through the benefits derived by the participating students. Hamilton (1990) argues that an effective school-to-work transition program is one that allows students to develop social skills and worker virtues, reinforces school learning, and provides a student with the background and support services necessary to begin a career upon completing high school. He defined career as "employment in positions requiring some specialized knowledge and skill, paying enough to support an independent adult or family, offering reasonable security and benefits, and providing opportunities for progressive advancement" (p. 22).

A recent publication by the Employment and Training Administration of the U.S. Department of Labor (1992) lists the following benefits that school-to-work programs which involve a work experience component provide to students.

1. They provide a second chance to finish school.
2. They allow students to earn income while learning.
3. They provide actual work experience while attending school.
4. They provide access to good jobs.
5. They establish contacts to broaden employment options.
6. They provide a non-traditional setting for hands-on learning.

7. They build self-confidence through experience.
8. They obtain personal attention for education and personal needs.

For the purposes of this study, effective school-to-work transition for non-college bound youth will be defined as on-the-job training or other work experience component, related instruction, and other actives, such that upon completing high school the experience can lead to placement in a job with adequate pay and opportunity for career advancement.

Non-college bound youth will be defined as those students not considered to be special needs students, and who, while participating in their junior and senior years of high school, do not have plans to pursue postsecondary college education.

These students are assumed to plan on entering the work force at the time of graduation and expect to make an adequate living based upon the skills obtained while attending school, opportunity, and what they can learn on the job.

Comparison of Transition Systems in other Countries

The U.S. General Accounting Office (1990) recently investigated weaknesses in the U.S. school-to-work transition system for U.S. non-college bound youth in comparison with systems in England, the Federal Republic of Germany, Japan, and Sweden. It was determined that the U.S. system had evolved in the absence of an overall plan or strategy. In contrast, each of the four comparison countries has definitive national policies concerning induction of youth into the labor force.

The schools and employment communities of these comparison countries are active in orienting students to the world of work and providing guidance throughout the transition from school to work. Employers in these comparison countries were also found to play an important role in providing structured work experiences to secondary students. The report concluded that the U.S. fell short by not preparing general non-college bound youth for employment by not providing the necessary literacy skills, and by not providing an effective system of transition for students from school-to-work. The General Accounting Office recommended that more effective linkages between schools and employers be developed to expand transition programs and better assist youth in obtaining entry-level employment.

In Japan, employers constitute the main source of vocational education. Teacher references and government-supported placement services are utilized for placing young people into career positions (Evans, 1986).

In Germany, employers also bear most of the costs of occupational training for non-college bound youth. Their participation, even during economic downturns, is continued out of national pride and a belief that support of youth training will reap long-term benefits for themselves and the German economy (Hamilton, 1990).

Youths participate in apprenticeship programs, receiving on-the-job training and wages, while attending classes one day a week. Employers list their job openings with government labor offices that provide occupational guidance to clients. It is interesting to note that it is forbidden by German law for teachers to give specific occupational advice to students (Hamilton, 1987).

In the U.S., the transition from school-to-work for most non-college bound youth is characterized by a lack of structured linkage for high school graduates until some later time when on-the-job training becomes available (Blyth, 1987). In general, our society appears to regard the process of youth entering the labor market as their own responsibility. The majority of schools rarely know if their former students obtain jobs, or in which occupations they find work. Without such information, the U.S. General Accounting Office maintains (1990), the educational system cannot respond to change.

While Governor of Arkansas, President Bill Clinton (1991) observed:

> Today we are failing miserably, our non-college-bound young people, because we don't have a real school-to-work system in America. We are laboring under the belief that our kids can get a high school education that is internationally competitive without working as hard as students in competitor nations. . . . The best alternative is to craft an American version of European apprenticeship--not necessarily like the German system, but one that blends vocational and academic education in high school, provides students meaningful work experience and continues their training after graduation. (pp. 22-23)

Status of Secondary Education Programs for Work

Vocational Education. Vocational education is the major system used in the U.S. for employment preparation of non-college bound youth. Nationwide, approximately thirty (30) percent of all high school students participate in vocational education. While there are undoubtedly many excellent programs, vocational education has its critics. Many employers believe that technology in the workplace has out paced the education system's efforts and resources (William T. Grant Foundation, 1988). Other criticisms voiced in the nation include neglect of academic skill development, preparing students for obsolete occupations, use of outdated equipment, and limited placement assistance (Nothdurft, 1990; U.S. Department of Labor, U.S. Department of Education, & U.S. Department of Commerce, 1988).

The implementation of the *Blueprint for Career Preparation* in Florida, with its emphasis on career awareness, applied academics, and individual planning, is dispelling the cause for some of these criticisms. As noted in the report of the U.S. General Accounting Office (1993, p. 18) on innovative transition strategies, the

main objectives of Florida's policy include "increasing students academic performance, enhancing their self-esteem and career awareness, and improving their interpersonal and employability skills." The report further described (p. 21) the Gold Seal Endorsement program as a "unique feature of the Florida strategy . . . which rewards students who obtain technical skills relevant to today's workplace while mastering academic competencies that are prerequisites for higher education." Placement standards and the program review process in Florida eliminate programs that prepare students for obsolete occupations.

However, as long as technological advancement in the private sector continues to outpace funding for equipment in public educational institutions the technology-education gap will continue to exist. It will be wider in some areas, and more narrow in others, as local district priorities vary. Work-based learning can mitigate this difficulty by encouraging participating students to hone their skills on state-of-the-art equipment at the job site.

Cooperative Education. An alternative to the traditional delivery of vocational education is cooperative education. Cooperative education allows secondary students to work in the labor market part-time while they are still participating full-time in school. When implemented correctly, cooperative education provides on-the-job training based on objectives jointly developed by the school and the cooperating employer. As is true with youth apprenticeship, cooperative education has the potential of providing students with opportunities to combine school studies with work experiences, to try out potential careers, and to develop relationships with employers and mentors while earning money and receiving occupational preparation (Nothdurft, 1990).

Approximately half of the students involved in cooperative education remain with the same employer after graduation. Despite this record of positive school-to-work transitions, cooperative education is not widely used as a means of moving students from school programs to related employment (Hamilton, 1990). Nationwide, only about three (3) percent of high school students participate in co-op training programs (William T. Grant Foundation, 1988). One possible explanation for this low rate of participation may be the disturbing indications that some programs do not provide quality training experiences.

Research has demonstrated that cooperative education is only effective in advancing a person in the world of work when the work-based training experience is directly related to the occupation or career in which the student wishes to be employed (Stern, cited in Nothdurft, 1990). In a study comparing CETA (Comprehensive Employment and Training Act) programs, apprenticeship, on-the-job training, and cooperative education, Johnson (1981) found that although students participating in cooperative education enjoyed their learning experience, participation in the program did not significantly improve their job skills.

One problem with cooperative education is that there are no national standards for program organization or content. Arrangements between schools and employers are strictly local, monitoring is uneven, and there appear to be few incentives for employer participation. Many programs exist for the sole purpose of providing students with part-time employment while they are in school with no thought to career-related training for the future. Even with these problems however, this method of instruction is seen by some as having great potential (Nothdurft, 1990).

Youth Apprenticeship. A second alternative to traditional programs in vocational education is provided through youth apprenticeship programs. Both youth apprenticeship and work-based learning have received recent national attention. As a consequence of the *Apprenticeship 2000* study, the U.S. Department of Labor, Employment and Training Administration (1989) is promoting youth apprenticeship and work-based learning as types of occupational preparation to solve America's labor force skill crisis, youth unemployment, and the school-to-work transition problem.

Work-based learning is a generic term which includes within it youth apprenticeship. Work-based learning also includes structured adult on-the-job training (OJT) programs, traditional apprenticeship, and other types of structured on-the-job training programs. Most work-based learning programs are based on partnerships between public education and the private-sector (U.S. Department of Labor, Employment and Training Administration, 1989). In concept, youth apprenticeship and work-based learning systems use a structure very similar to traditional apprenticeship training. Similar features include:

A. Structured OJT under the guidance of a person proficient in the occupational area;
B. Related classroom and laboratory instruction;
C. Competency levels determined and recognized by business and industry;
D. Periodic promotion and wage progressions;
E. Committee oversight, with regular meetings, involving participating government, education, and business representatives;
F. A structured credentialing system; and
G. A written document, agreed upon by all the parties involved, that defines the structure of the program and the responsibilities of each of the parties.

Under the guidance of the U.S. Bureau of Apprenticeship and Training (BAT), federal apprenticeship training representatives help establish and monitor registered youth apprenticeship programs to ensure that the training is comparable to national standards established for traditional apprenticeship. Taking the national standards into consideration, Nothdurft (1990) maintained that youth apprenticeships registered by the BAT, in accordance with the Code of Federal Regulations Section 29: Part 29, which governs the delivery and recognition of traditional apprenticeship training, represent the most consistent, structured school-to-work initiative currently in use in the United States.

Youth apprenticeships differ somewhat from traditional apprenticeship training in that the youths who participate are full-time students and part-time employees. This is similar to secondary cooperative education programs. Furthermore, youth apprenticeship is not restricted to the limited range of occupations traditionally involved in apprenticeship training (Lerman & Pouncy, 1990).

Ideally, following graduation, employers participating in a school-to-work transition program retain the former students in positions that lead to careers. In any event, programs should be such that student workers who are not retained by employers participating in the high school program are able to find other employment and continue career advancement. This also is accomplished in youth apprenticeship programs, along with continued structured training and periodic wage increases (Lerman & Pouncy, 1990).

Employers who have participated in youth apprentice training report that it teaches entry level workers what is expected on the job. Student workers have an opportunity to learn the work ethic, how to cooperate with others, how to think independently, punctuality, and the importance of quality. Employers have also noted that youth apprenticeship training is a valuable means of perpetuating their trade (Kiester, 1993).

Despite steady promotional efforts by the federal government since the mid-1980s, in 1990 there were only 1,500 participants in youth apprenticeship programs in the nation. (U.S. Government Accounting Office, 1990). In Florida, the only registered youth apprenticeship program to be developed by that time was located in the Jacksonville area in partnership with the Duval County School System. Other registered youth apprenticeship programs were reported to be operating in Alabama (Alabama Center for Quality and Productivity, 1990); New York, St. Louis, Texas, Oakland, Portland (Roditi, 1991); Maine, Arkansas, Pennsylvania, Wisconsin, Boston, Tulsa (Lively, 1993); and Virginia (T. A. Sigafoose, personal communication, April 3, 1991). All of these programs existed as small isolated efforts.

Despite the recent sprouting of numerous youth apprenticeship programs across the country, there is still no single model to implement youth apprenticeship. Also, many questions still remain unanswered about the best method to nationalize a youth apprenticeship training system. For instance, one unresolved question concerns the proper federal role in a national system. While some argue that national standards need to be implemented to insure value and recognition of the completion certificate, others argue against any standards or federal controls that would threaten local adaptation (Lively, 1993).

Hamilton (1990) observed that implementing a national youth apprenticeship system is feasible, but it would be difficult. A sustained long-term effort would be required. In order to succeed with such a system, Lerman and Pouncy (1990) contended that employers must believe that participation in youth apprenticeship

training programs brings direct benefits to them and not be asked to view their participation altruistically.

Business Participation in Partnerships

Since government and public education are supported by taxpayers' money, they can afford to be altruistic in their goals. Agencies and institutions are established to engage in activities that promote the welfare of the general populace. Productivity of public schools, for example, is often difficult to determine, and the survival of the institutions is not entirely dependent on "production" outcomes (Mann, 1987b). This is not the case in the private sector. Participation in a school-business partnership by a business entity is a voluntary activity. If time and resource commitment are involved, the respective employer must perceive some benefit or the partnership will be likely to dissolve. The business world expects accountability (Mesenda, cited in Redman, 1989).

While it is easy to assert that education and business should be linked together in partnership, consideration must be given to the differences between them. Unlike local educational agencies, business does not exist as a monolith. The idea of a single business interest is misleading, as is the tendency to think of business in terms of corporate giants. Small business concerns permeate the private sector. Mann (1987a) noted that 94 percent of all business establishments employ less than 50 employees. Because of these variations, different businesses have slightly different perspectives, objectives, and ideas on how their interests can best be accomplished.

For instance, in *What Work Requires of Schools*, SCANS (1991) concludes that industry no longer wants the education system to provide specific occupational skills training. Rather, the report concludes that public education should concentrate on teaching basic literacy skills, critical thinking skills, social skills, and interpersonal skills.

The SCANS report findings are somewhat different from the findings of studies concerning employer preferences in Florida. For three years annual statewide studies were conducted by the Florida Education and Training Placement Information Program [FETPIP] to determine employer opinions of vocational education completers in their employment. FETPIP concluded that the employers surveyed were satisfied with the specific occupational skill training of their employees but were dissatisfied with their basic skill preparation. The surveyed employers were supportive of continued vocational education for specific skill training (FETPIP, 1991).

While the SCANS and FETPIP findings both agree on the need for better basic skills education, there is disagreement concerning employers' perceived need for the continuation of education in specific occupational skills. A possible explanation

for these inconsistent findings could result from the differences in the size of the businesses that participated in the respective studies. SCANS membership is made up of people associated with large corporations while FETPIP surveyed a random sample of employers of vocational education program completers, most of whom would be considered small businesses.

The National Alliance of Business (1987) has identified a number of reasons why it is advantageous for companies to be involved in education-business partnerships. The most obvious benefits are the ability to obtain better quality workers to reduce work place errors, increase product quality, and achieve higher productivity. The need for greater productivity is especially important since it comes at a time when global economic competition is more intense, fewer young people are entering the work force, and required work place skills are becoming increasingly complex (Timpane, 1984). Other benefits include maintaining a healthy community tax base, reducing in-house training costs, and generating positive publicity. There is also a recognized connection between having good community schools and the ability of an area to attract good employees and further growth industries to the area. Community involvement can enhance a company's public image and promote greater acceptance of its products (Macdowell, 1988).

The U.S. Department of Labor, Employment and Training Administration, Office of Work-Based Learning (1992) has identified the following benefits for employers participating in school-to-work transitions programs. These benefits include being able to:

1. Expand the pool of qualified applicants;
2. Enhance the ability to recruit and screen potential employees;
3. Evaluate potential employees in work settings prior to hiring;
4. Develop a reliable source of skilled labor;
5. Meet affirmative action and equal employment obligations;
6. Reduce turnover of entry level employees; and
7. Influence curriculum development to better meet industry requirements.

Even though, as has been stated earlier, advocates in the public sector should not expect businesses to agree to participate in partnership activities for altruistic reasons, there is evidence that some participating businesses do exhibit altruistic motives. When surveyed, school superintendents involved in education-business partnerships reported that they perceived that businesses' involvement in partnership activities was due to civic pride, social conscience, and corporate guilt, twice as often as they perceived the involvement due to an interest in a better educated labor pool (Mann, 1984).

Eltinge and Glass (1988) surveyed 28 national companies to determine their possible support to schools in four categories: providing volunteer resource personnel, donating equipment and materials, providing facilities, and providing

employment experiences for teachers and students. Providing employment experiences received the lowest rating factor. Companies willing to give of their time and resources, appear less willing to allow students and teachers into their work place.

Strategies to Implement Successful Partnerships

Political science teaches that self-interest is the only reliable motivator. Thus, education-business partnerships are often developed because of the personal commitment of respective leaders who see something to enhance themselves and their agency (Mann, 1987a). This is consistent with the Exchange Theory concerning interagency coordination effectiveness presented by Esterline (1976). This theory stresses analysis of the costs and benefits to be derived from the participating entities in a relationship and the need for detailed planning documents that clearly define the barriers, facilitators, resources, and goals.

Numerous writers and collaboration models have underscored the importance of establishing interagency agreements. One of the primary purposes in establishing interagency agreements is to overcome the outcome barriers and establish goals that are of mutual benefit to all participating entities. Statements of general intent and verbal agreements should be avoided, as there is too much potential for the program to become unfocused and lose effectiveness without clearly defined guidelines (Sosa, 1989).

The detailed written interagency agreements should be mutually developed and implemented to address every identifiable facet of the transition program. According to Sarkees and Scott (cited in Sosa, 1989), these agreements should define the following elements:

1. Responsibility of each of the participating agencies;
2. Settings where services will be delivered;
3. Conditions for providing the services;
4. Types and qualifications of students to be served;
5. Financial arrangements between respective agencies; and
6. Identification of limitations that may exist.

In a model designed to be used for individuals with or without disabilities in postsecondary vocational settings, Brown (cited in Locklear, 1989) proposed desired attributes of a transition model. The model presented below has been slightly altered to better address students making a transition to the world of work from a secondary educational setting.

1. Transition processes should transcend disciplines, agencies, and institutional boundaries to better identify and access appropriate sources of information and services.

2. Cooperative agreements should be established to expedite the flow of information and enhance transition-related activities.

3. A transition contact person, who has responsibility for implementing and maintaining transition-related efforts, should be established within each cooperating secondary school and agency.

4. Students entering vocational programs should be informed of the nature of each vocational program in relation to their needs, interests, and abilities; the range of related employment opportunities; and the support services available within the institution.

5. All vocational students should be . . . evaluated in terms of educationally relevant criteria to identify potential transition-related problems and solutions.

6. Instructors and instructional programs should be able to adapt to the unique educational needs of individual students.

7. A monitoring system should be provided to examine and evaluate the effectiveness of each segment of the overall transition process.

The lack of formal evaluation procedures has been identified as a typical weakness of education-business partnership programs involving school-to-work transitions (Stake, 1989). Consequently, all services and interactions resulting from formal partnerships should be evaluated in terms of the program goals and objectives to determine if the program is making a measurable difference. For best results, measurement criteria and evaluation procedures should be mutually developed and accepted by all participating parties and incorporated into the interagency agreement (Ruffin, 1983; Sosa, 1989).

In *School-to-Work Connections: Formulas for Success*, the U.S. Department of Labor, Employment and Training Administration, Office of Work-Based Learning (1992) identified eight "keys to success" to be considered when establishing new partnership programs:

1. Partners should develop a shared vision of intended outcomes and be sensitive to each other's individual objectives.

2. Educators should adopt a private-sector industry perspective.

3. Partners must be patient and allow time for the formation of stable, lasting partnerships.

4. Partnerships must foster climates of negotiation and cooperation (brokers or other third-party players are recommended).

5. Developing the partnership around a single school or school system eases administrative burdens.

6. School-to-work partnerships should include all types and sizes of employers.

7. Partnerships must foster open, honest, and frequent communications.

8. Commitment must come from the very top levels of the respective participating organizations.

Many of the characteristics identified in the literature as belonging to collaborative school-business partnerships are inherent in youth apprenticeship programs. As in traditional apprenticeship, program standards are adopted detailing the program procedures and responsibilities of each of the participating parties. Written agreements are established between the educational system and the private sector entities, which may sometimes involve organized labor. Agreements are also established between participating students and employers. An oversight committee, which meets regularly, acts as a collaborative unit to maintain communication between the employers, the participating students, and the education system. The committee also is involved in the youth apprenticeship selection process, development of the training package, and solving problems as they occur. The education system and the employers work collaboratively to determine the competencies needed, and provide the instructional processes (U.S. Department of Labor, 1992).

Conclusions

Based upon the review of literature presented above the following conclusions are evident:

1. The ineffective transition of youth from school to work has been identified as a national concern.

2. An effective school-to-work transition system is potentially beneficial to youth entering the work force, to public education systems, the community, public- and private-sector employers, and the nation and economy as a whole.

3. Although attention has been given to school-business partnerships and school-to-work transition programs for special needs students, little research or evaluation has been undertaken addressing school-to-work transition programs for other non-college bound youth.

4. Barriers to successful education-business partnerships and school-to-work transition programs may be classified into broad categories concerning: (a) lack of understanding due to differences in the cultures of schools and

businesses; (b) lack of clearly defined objectives, operating procedures, and evaluation procedures; (c) problems of communication; and (d) problems concerning work place processes such as legal restrictions and insurance.

5. In concept, with the exception of formal summative evaluation procedures, the youth apprenticeship model provides a formal training structure that includes the pertinent characteristics identified as belonging to successful school-business partnerships and school-to-work transition programs.

6. Employers appear willing to participate in business and education partnerships to a lesser degree when it involves a change in operations, as is generally necessary in school-to-work transition projects.

7. Most information concerning school-business partnerships has been gathered from people associated with government and public education. Little research has been reported from the perspective of business and employers concerning the voluntary participation of the private sector in school-to-work transition programs.

RESEARCH AND FINDINGS

The research design for this project involved embedded multiple case studies of established youth apprenticeship programs in Jacksonville and Alabama in which participating employers, former participating employers, and program administrators were interviewed. After reviewing available literature to determine salient concerns, data collection instruments were developed and pilot tested in mock interviews with program coordinators, participating employers, and former participating employers from the business education cooperative education program in Tallahassee.

Personal interviews were then conducted with ten participating employers, eight former participating employers, and nine program administrators involved in, or previously affiliated with, youth apprenticeship programs. Six of the program administrators were local school district cooperative education coordinators (CECs), and three were U.S. Bureau of Apprenticeship and Training representatives (ATRs). Numerous written documents and reports from these programs were also reviewed.

The following information and recommendations represent a summary of findings pertaining to the stated purpose of this investigation.

Jacksonville Youth Apprenticeship Program

Introduction. The initial study was conducted during December 14-17, 1992 in Jacksonville. On-site interviews were conducted with the Bureau of Apprenticeship and Training field representative who works with the program, the instructor for the program, three participating employers, and one former participating employer. Several other participating and non-participating employers were also contacted, but declined to be interviewed.

The interview instruments were then used to gather information on the development of the youth apprenticeship program and the perceptions of the employers concerning effective school-to-work transitions based upon their experiences with cooperative education.

General Program Description. The Computerized Machining Technology Program (CMT) is two years old. It consists of a three-year in-school program where the students participate in classroom and laboratory instruction in their sophomore and junior years, and receive OJT for half days in their senior year. Currently 16 students are enrolled in the first-year class, and 14 students in the second year. Although there are no students in the third-year class actually working as youth apprentices, the participating employers interviewed did employ machining co-op students.

The CMT youth apprenticeship program evolved out of the machining co-op program. The primary difference in the CMT program is the greater participation and commitment from the employers in the tool and die industry.

In 1990 the administrators of the Duval County schools were considering closing the machining program at Southside Skill Center. In response, the North Florida Machine Tool and Die Apprenticeship Council became involved and assisted in reshaping the curriculum, recruiting students, and recruiting participating employers in order to implement youth apprenticeship. The North Florida Machine Tool and Die Apprenticeship Council is a locally established association of employers from the machining industry who regularly sponsor apprenticeship training registered with the state and with the U.S. Bureau of Apprenticeship and Training. Some of these employers had recruited students from the machining program to enter their apprenticeship programs in the past, so they were naturally concerned about its possible elimination.

Promotional activities were undertaken, including a spaghetti dinner for 177 parents and students to explain the program and career opportunities. The participating employers agreed to pay students $5 to $6 per hour while working part time and attending school. Upon graduation, the employer group guaranteed jobs for 15 graduates each year, with the graduating seniors beginning full-time employment as second year apprentices in the four-year apprenticeship program.

At this stage, the youth apprenticeship program was not handled as formally as a standard registered apprenticeship program. Apprentice agreements did not exist, nor was there a separate set of standards for the youth apprenticeship program. Instead, the program operated informally with a Collaborative School-Linkage Intent Agreement as the only support document. Industry linkage with the program is carried out by the North Florida Machine Tool and Die Apprenticeship Council, which, it was reported, discusses the youth apprenticeship program on an informal basis at its regular meetings.

The program did have very detailed instructional outlines. These were developed as a collaborative effort between the Apprenticeship Council and the local education agency (LEA). Machining classroom and laboratory instruction continued to be provided at the Southside Skill Center.

Selection of Students. Students entering the CMT program were required to have a 2.5 grade point average (GPA) the first year. This requirement was lowered to 2.3 GPA the second year. Because of the extra course load, 75 percent of the first-year and all of the second-year CMT students were required to participate in summer school to fulfill their academic requirements. Co-op students were referred to employers on the basis of the instructor's recommendation. Some employers interviewed several students before hiring. This is expected to continue in CMT.

Female and Minority Participation. The CMT is a relatively small program with sixteen students participating in the first year of training and fourteen in the second year. Of these thirty students, eleven students were minorities (37 percent) and four were females (13 percent). Thus the program demographics indicate a sincere effort on the part of program planners and managers to extend opportunities to targeted populations in a field that offers good income and job stability. In two years, if these students continue to participate in this apprenticeship program, it will probably have the highest percentage of minority and female participation of any registered apprenticeship program in a technical occupation in Florida.

Alabama Youth Apprenticeship Program

Introduction. Youth apprenticeship programs haves been in operation much longer in Alabama than in Jacksonville. The U.S. Bureau of Apprenticeship and Training (BAT) and the Alabama Department of Education began working together to implement youth apprenticeship programs in 1985. In 1988 the Department of Education was awarded a grant of approximately $328,000, which was combined with approximately $200,000 in LEA funds, to implement the Student Apprenticeship Linkage Program from January 1, 1989 through June 30, 1990.

The project was to function as a cooperative demonstration program between the Alabama Department of Education and the U.S. BAT, with oversight and evaluation provided through the Alabama Center for Quality and Productivity (Alabama State Department of Education, 1988). The primary purpose of the Student Apprenticeship Linkage Program was to facilitate the transition of students from high school to high technology occupations through cooperative efforts of industry, labor, and education, by bridging vocational education offered in secondary schools with apprenticeship training sponsored in industry (Alabama Center for Quality and Productivity, 1992).

Upon meeting selection requirements and obtaining the approval of the program advisory committee, where applicable, high school students who had completed a minimum of one year of vocational education in an apprenticeable trade could become student apprentices during their senior year. These students were registered as apprentices with the U.S. BAT and allowed to work up to 20 hours per week with an employer who sponsored a registered apprenticeship training program. While at work, the students were to receive structured job training in a specific occupation. Participating businesses employing youth apprentices were provided with a wage subsidy that reimbursed half of the trainees' wages up to $2.25 per hour.

General Program Description. The students attended high school in the morning and went to work in the afternoon. Part of their classroom instruction was related to the occupation in which they were training and is defined in the apprenticeship

program standards as the first year of related instruction. The trainees were monitored by an education coordinator who visited the job-site at least once each month. The employer kept attendance records and evaluated the youth apprentices for grade purposes. During the course of the year, the youth apprentices moved through a variety of on-the-job training experiences as specified in the program standards.

The U.S. BAT assisted in initiating the program, developing the program standards, approving and registering the program, registering the apprentices, visiting the job site on an as-needed basis, and providing a national certificate of skill recognition to the trainee upon completion of the apprenticeship program. The participating employers were required to sponsor a registered apprenticeship program, in which they are signatory to a set of program standards, before participating in youth apprenticeship and becoming eligible to obtain a wage subsidy.

Upon graduating from high school, students who remained in the apprentice program were granted one year of credit and encouraged to begin full-time employment as second-year apprentices, earning second-year apprentice wages. With the completion of the apprenticeship program, each former apprentice received a national certificate from the U.S. Department of Labor providing recognition as a journeyman or skilled technician.

Program Outcomes. During the year and a half the Department of Education grant operated, 146 youth apprentices received training with 83 companies in 30 different occupations. Approximately 73 percent of these trainees were reported to have completed the program and entered full-time apprenticeships (Williams, 1992). At the conclusion of the demonstration program, the Alabama State Legislature deemed the program successful and appropriated funds to continue the Student Apprenticeship Linkage Program for the 1990-91 and 1991-92 school years.

Table 1 provides statistics on the respective number of youth apprentices, females, and minorities who participated in the Alabama Student Apprenticeship Linkage Program from 1989 through 1992. This information was obtained from Linkage Program annual reports (Alabama Center for Quality and Productivity, 1990; U.S. Department of Labor, Alabama State Department of Education & Alabama Center for Quality and Productivity, 1991; Williams, 1992) and through personal communication with the Alabama U.S. BAT Office in Birmingham on April 1, 1993.

TABLE 1

Alabama Apprenticeship Linkage Program

School Year	Students	Females	Minorities	Continued Training
1989-90	146	15%	10%	73%
1990-91	194	32%	10%	78%
1991-92	150	45%	16%	unknown

As of April 1, 1993, there were 251 full-time apprentices who had begun working as youth apprentices while in high school and were continuing to receive training in registered apprenticeship. Collectively, the five cooperative education coordinators involved in this study provided administrative services for 47 youth apprentices in the 1991-92 school year. They collectively reported that 34, or 72.3 percent, of these students had continued training in registered apprenticeship programs.

Unregistered Youth Apprenticeship Programs. In 1992 the Alabama State Legislature canceled funding support for the Student Apprenticeship Linkage Program. Several of the people who were interviewed indicated that this cancellation was a result of the Linkage Program being included as part of a larger education funding package that maintained the Alabama Center for Quality and Productivity. Since this Center came under heavy criticism that resulted in a loss of funding, the Student Apprenticeship Linkage Program lost its funding also. A number of supporters have tried to reestablish funding for the Apprenticeship Linkage Program.

Cancellation of funding support for the Linkage Program resulted in the elimination of wage subsidies for participating employers and a drastic reduction in the number of participating youth apprentices. It also eliminated the statewide reporting mechanism so that no statewide statistics are being maintained on youth apprenticeship for the 1992-93 school year, or on student participants from the previous year. In Gadsten County, the school system was able to continue the program by providing wage subsidies for a small number of students out of LEA funds. It was determined that only twenty-three youth apprentices were registered with the U. S. Department of Labor for the 1992-93 school year in Alabama (L. Johnson, personal communication, April 16, 1993).

However, with the elimination of the wage subsidies, many of the LEAs maintained "unregistered" training programs resulting in an unknown number of "unregistered" youth apprentices. From a training perspective, these school-to-work transition programs appear to be exactly the same as registered youth apprenticeship programs. The students follow the same program standards as in registered youth apprenticeship programs, including structured on-the-job training and the required related instruction. Upon graduation from high school, the students have the option of entering a registered apprenticeship program sponsored by the participating employer as a second-year apprentice.

The primary difference in registered youth apprenticeship and unregistered youth apprenticeship is a difference in the administrative procedures. The unregistered apprentices do not sign apprenticeship indenture agreements until entering full-time employment, following graduation from high school. Also, the BAT does not register the students as apprentices until the second year of training. Then the trainees sign apprenticeship agreements and formally enter apprenticeship. However, during this time the BAT field representative continues to maintain contact with the participating employers since these companies sponsor regular on-going apprenticeship programs.

Except for the wage subsidy, from the employers' perspective there appeared to be no discernible difference in the training program for the registered youth apprentice in 1991-92 and the program for the "unregistered" youth apprentice in 1992-93. Therefore, for purposes of this research, employers who continued to maintain linkage with the school system, employed and trained unregistered apprentices during the 1992-93 school year, and maintained a registered apprenticeship program with BAT, were classified as participating employers.

Role of the BAT. The presence of the U.S. Bureau of Apprenticeship and Training in the youth apprenticeship interagency partnership and the services of the agency have been perceived as being advantageous to participating employers. The relationship has also been seen as a barrier to expansion. It is not known whether youth apprenticeship training can be implemented and can continue to exist without the presence of this third-party partner. The literature advises that the effectiveness of school-to-work transition programs is enhanced through the presence of a third-party broker (U.S. Department of Labor, 1992; U.S. Government Accounting Office, 1990), which is a role filled by the U.S. BAT.

Student Selection Procedures. The cooperative education coordinators (CECs) all indicated that youth apprenticeship training was reserved for their best cooperative education students. One of the primary functions of the CECs was to screen potential youth apprentices and provide participating employers with suitable job applicants. Several CECs also indicated that they used only their best business training centers as sponsors to implement youth apprenticeship training.

The student entry requirements to become eligible to participate in the youth apprenticeship training are listed below.

The prospective youth apprentice must:

1. be at least 16 years old, and a junior or senior in high school;
2. have completed a minimum of one year of vocational training in the prospective occupation;
3. possess a good background in math and/or science;
4. have desire and ability to complete an apprenticeship program, also interpreted as having an interest in the trade;
5. pass a pre-test in the chosen field or be recommended by a teacher of the vocational skill area;
6. have parental approval;
7. have a minimum 2.0 GPA (some employers required a 3.0 GPA);
8. have a good attendance record;
9. have a clean discipline record;
10. have transportation, either personal or provided by the school; and
11. possess a good attitude.

In some areas, the prospective youth apprentice must be screened and selected by a program advisory committee .

Female and Minority Participation. During the 1991-92 school year, the Alabama Apprenticeship Linkage Program trained 150 registered youth apprentices, 45 percent of whom were female. Minority representation reached 16 percent. In comparison to full-time apprentices, these figures are very favorable for female participants in youth apprenticeship training. Minority participation in youth apprenticeship was about the same as the percentage of minorities who participate in regular apprenticeship programs. In the 1992 fiscal year, 2,205 registered apprentices received training in Alabama, of whom 8.9 percent were female and 14.1 percent were minority (U.S. BAT Alabama State Director's Office in Birmingham, personnel communication, April 1, 1993).

In discussing the need to continue the program, a report entitled *Alabama's Student Apprenticeship Linkage Program in Vocational Education: "Promoting Quality In Education"* states: "Traditionally, a very small percentage of women and minorities find their way into the high-skilled crafts and precision occupations. Individuals in these two groups need special assistance in entering the highly skilled occupations" (Williams, 1992, p. 1). There was an assumption that the Student Apprenticeship Linkage Program will provide this assistance.

However, in conducting the interviews it was found that the standard practice was to place male youth apprentices into occupations that were traditionally dominated by male workers. These occupations consisted of technical trades such as machinist, electrician, welder, tool and die maker, and auto mechanic. With the exception of two female students who were receiving training as offset press operators in their families' businesses, female youth apprentices were likewise found to train primarily in traditional female occupations such as child care worker, secretarial and clerical workers, and health care workers.

Given the percentage of female participants in youth apprenticeship training, compared to the percentage of female apprentices, it appears that the linkage program may have been used as an opportunity to promote female participation in apprenticeship training. This conclusion is supported by Alabama U.S. BAT Quarterly Reports, which list numerous promotional activities performed by the apprenticeship training representatives to enlist more women into apprenticeship training.

The limited minority participation was reported by the program administrators to be the result of the inability of most minority students to meet the entry qualifications. One program administrator observed that minority and female involvement is better in youth apprenticeship training than in the regular apprenticeship programs. However, minority participation in youth apprenticeship is lower than in regular cooperative education.

General Program Operation. The primary focus of this research was to examine employers' perspectives toward participation in youth apprenticeship training. However, since this was done in the context of the Student Apprenticeship Linkage Program, program operations were also reviewed.

In general, the operation components of both the Jacksonville and Alabama youth apprenticeship programs appeared to be consistent with most of the characteristics identified by Locklear (1989) as belonging to effective school-to-work transition programs. These characteristics include commitment and support from high level supervisors, full-time program facilitators, written interagency agreements, shared resource commitment, written mutual understanding of roles, and defined written procedures.

Communications. When questioned about the adequacy of communications with participating employers, all nine program administrators reported they perceived communications to be adequate. All of the participating employers and former participating employers also reported communications as adequate, even though there appeared to be very little written communications between the education and business partners beyond the initial implementation of the various programs.

Four cooperative education coordinators (CECs), including one in Jacksonville, reported that they had active local advisory committees in operation, and that communications were adequate with this group. In Alabama, the function of these local advisory committees was to provide private sector input into the administration of the cooperative education program, of which the youth apprenticeship program was considered a part. In Jacksonville, the North Florida Machine Tool and Die Apprenticeship Council's primary concern is apprenticeship training, and they are actively involved in the youth apprenticeship program. Two Alabama CECs interviewed did not use an advisory committee, although one of these coordinators stated that the establishment of a local advisory committee in the next year was a high priority.

The reason for the smooth functioning of program operations, even in the absence of active local advisory committees, may have been due to the sensitivity of the program administrators concerning the needs of local industry. The ability of the partners to be sensitive to each other's needs, and the ability of educators to adopt a private sector perspective, has been identified as an important characteristic of program effectiveness (U.S. Department of Labor, 1992). This appears to have been accomplished in the youth apprenticeship programs reviewed. Evidence of this accomplishment was provided by the consistency of the program administrators' perceptions of employer perspectives with the actual responses furnished by the participating and former participating employers involved in this study.

All of the participating and former participating employers interviewed indicated they were generally satisfied with youth apprenticeship program operations and interagency relationships.

Cost Effectiveness for Employers. Sixteen out of eighteen participating and former participating employers interviewed stated that they thought participation in the program was a cost-effective method of training employees, including the former participating employer. The two exceptions were both concerned with the ability of employees to go elsewhere after they had received on-the-job training and graduated from high school. One of these employers thought that lack of the ability to retain an employee after graduation justified the need for wage subsidies.

Advantages to Program Participation. Based upon the information gathered from the participating employers, former participating employers, and program administrators involved in this study, the following have been identified as being advantages employers experience as a result of participation in youth apprenticeship training:

1. Provides an altruistic reward from contributing to students, the community, and the perpetuation of their industry;

2. Provides a source of quality employees;

3. Allows employers to "mold" the employee to meet the unique needs of the company;

4. Reduces production costs through the use of low wage labor;

5. Reduces costs involved in training entry level workers;

6. Allows the employer and employee to examine each other before making a long-term commitment;

7. Receives assistance from the school in controlling absenteeism and establishing good work attitudes and behaviors;

8. Provides a mean for employees to obtain certification and skill recognition in the occupation; and

9. Promotes a positive image of the employer as a responsible member of the community.

Many of the advantages to employer participation in youth apprenticeship training identified in this study are consistent with the benefits of employer participation in school-business partnerships and school-to-work transition program identified in the literature. For instance, eleven of the fourteen employers interviewed stated

that one of the reasons that they had participated in youth apprenticeship training is they felt good to be helping students, the community, and their industry. This is consistent with previous findings (Mann, 1984) in which the participation from business and industry in partnership programs was perceived by school superintendents to be for altruistic reasons.

A publication entitled *School-to-Work Connections: Formulas for Success* (U.S. Department of Labor, 1992) described benefits to employers participating in school-to-work transition programs that are consistent with several of the advantages to employer participation identified in this study. These include obtaining a reliable source of quality workers, being able to evaluate the employee in a work setting prior to making a long-term commitment, being able to influence training development of the employee, and reducing turnover of entry level employees.

Advantages to participating in education-business partnerships related to lowering production costs were identified by the National Alliance of Business (1987). Those advantages consisted of obtaining quality employees to reduce errors, increasing product quality, and achieving higher productivity. In this study, the primary methods which employers perceived as advantages in lowering production costs were through obtaining low wage labor and reducing training costs. The National Alliance of Business appears to have taken a long-term view of lowering production costs for participating employers.

This long-term view is consistent with what the people interviewed in this study perceived as the most desirable outcomes for employers as a result of participating in youth apprenticeship training. The question concerning what employers want most to achieve from participating in youth apprenticeship training resulted in the most consistent responses received from the interviewees. ***Twenty out of the twenty-one interviewees stated that, the outcome employers want to achieve is to obtain a quality employee whom they can train to be a skilled worker and retain for long-term employment.*** This goal may also provide insight as to why a number of employers described the ability to provide the trainee with reality training as to what is expected on the job as an employer advantage to participation.

An advantage to participation identified in this study, but not identified in the literature, concerned the certification and recognition of the program completer as a skilled technician. Obtaining this certificate is advantageous to the company. This certificate of completion is provided by the U.S. Department of Labor in registered youth apprenticeship programs. In the construction and service industry, this credential may allow employees to obtain appropriate licenses and building permits. Also, the recognition of the company's skill resources among the community and industry may result in more business and company recognition.

Several interviewees also offered that community recognition of employer contributions was yet another advantage resulting from participation in youth apprenticeship training. This was consistent with the advantages of businesses participating in partnership programs identified by Macdowell (1988), who maintained that such involvement can enhance a company's image and promote greater acceptance of its products.

Barriers to Program Participation. A summary of the perceived disadvantages and problems that were identified in this case study as being experienced by employers as a result of participating in youth apprenticeship training are presented below.

1. Immaturity and poor attitude of the student workers concerning what is expected and how to behave on the job.

2. Integrating work and job training experiences with academic schedules.

3. Inability to receive qualified students, or receiving student-workers who are not well matched to the occupation.

4. The lack of retention guarantees after training resources have been expended.

5. Child Labor Laws which prohibit trainees from operating vehicles and working around machinery.

6. Commitment of time necessary for paper work, program development, supervision, training, and evaluation.

7. Limits of insurance coverage for underage workers.

8. Fear of working in partnership and being subject to additional review by the Federal Government.

Most of the disadvantages to employer participation provided by the people interviewed in this study have been previously identified in the literature reviewed.

Perceived immaturity and attitude problems among young employees were identified by Osterman (1980) as barriers to employers hiring young adults. Immaturity of student workers was also identified by Hamilton (1990) as a primary barrier to employer participation in school-to-work transition programs.

Johnson (1980) conducted a study to determine among other concerns, why some employers refused to participate in a youth work experience program in which wage subsidies were provided. The reasons employers refused to participate were consistent with the perceived employer disadvantages identified in this study. These reasons include problems with labor laws and insurance, fear of becoming

involved in a partnership with the government, and lack of necessary background skills among the student workers.

Research conducted by Bowers (1989) had also cited several disadvantages experienced by employer participants in cooperative education programs that are consistent with perceived disadvantages identified in this study. These problems include scheduling work for part-time employees, a lack of retention after the employer's time had been expended, and the time required to supervise the training.

Alternatives to the traditional cooperative education schedule have been used in other demonstration youth apprenticeship training programs. In Pennsylvania, trainees alternate full days of work with full days of school (Kiester, 1993). Lively (1993) noted that the recently established Maine program, based on the European model, has the youth apprentice work full time four days each week and attend school one day.

Several employers interviewed in this study also perceived the amount of time necessary to complete the paperwork to initiate a youth apprenticeship program, and the time involved in rotating a youth apprentice through different work/training assignments, as too consuming.

The inability to retain youth apprentices after graduation appeared to be a problem in which some of the employees had an emotional investment. A factor contributing to this problem may be a lack of common goals among the interagency partners.

In identifying barriers to business and education partnerships, Wiant, Warmbord, and Pratzer (1984) defined outcome barriers as a result of the business and education partners having different goals. The primary goals of the local education agency in the Student Apprenticeship Linkage Program were to place qualified students in the program so they could obtain work experience, earn wages, and graduate from high school. The U.S. BAT's goal was to develop youth apprenticeship programs, and register youth apprentices, so that the youth apprentices could continue into the full-time registered apprenticeship programs. The outcome goal of most of the employers interviewed was to obtain, train, and retain a skilled reliable employee. While these goals are not opposed to each other, the lack of coordination resulting from the short-term goals of the education system and the long-term goals of the employers may contribute to retention problems experienced by employers.

Another problem experienced by some of the former participating employers, and a possible barrier to the expansion of the youth apprenticeship identified by several program administrators, concerned the limited number of students that appeared to be available to participate in youth apprenticeship training. Factors identified as

contributing to the lack of qualified students to participate in youth apprenticeship training are presented below.

1. Lack of promotional efforts to recruit greater minority participation in youth apprenticeship training.

2. Poor image of vocational education and careers in the skilled trades among students, parents, and school counselors.

3. Perception among program administrators that youth apprenticeship training should be limited to a only few students.

4. Identification of youth apprenticeship training with student wage subsidies for participating employers.

In-depth investigation of the procedures involved in the selection of youth apprentices was not the primary focus of this study. Therefore, a conclusion cannot be offered concerning the limited placement of minorities in the Student Apprenticeship Linkage Program. However, given the promotion and program development efforts that resulted in a substantial involvement of females in youth apprenticeship training, it appears to the researcher that an opportunity to achieve a proportionate increase in minority participation may have been missed. It is possible that if minority participation had been identified as a priority, the student wage subsides could have been used as an incentive to attract employer participation into programs that would have provided greater placement of minority students.

The poor image of vocational education and of careers in the skilled trades is a pervasive problem identified in the literature, including reports by the William T. Grant Foundation (1988), the National Center for Education and the Economy (1990), Stephen Hamilton (1990), and the Secretary's Commission on Achieving Necessary Skills [SCANS] (1991). An objective of the continued work of SCANS was to try to make these images more positive through recently published promotion and program implementation materials. These materials include: *Skills and Tasks for Jobs* (SCANS, 1992d); *Learning a Living: A Blueprint for High Performance* (SCANS, 1992b); *Blueprint for Action: Building Community Coalitions* (SCANS, 1992a); and *Second to None* [promotional videotape] (SCANS, 1992c).

The perception among some program administrators that youth apprenticeship training should be limited to a very few, and not be expanded, presents an acute problem since the program administrators are the very people who would be charged with expanding the program, should expansion take place. This perception is possibly related to some of the barriers to successful school-to-work program implementation identified by Locklear (1989) concerning organizational resistance to change, turfism, and disagreement on target population. If expansion of youth apprenticeship training is to take place, change strategies and

professional development activities will be necessary to assist the program administrators in changing their perceptions and beliefs.

Wage Subsidies and Incentives. All of the Jacksonville employers interviewed were against paid wage subsidies for student workers. They thought that if the employer wanted the workers, they should assume financial responsibility.

Thirteen of the fourteen employers interviewed in Alabama stated that they would participate in youth apprenticeship training without the wage subsidies. Nevertheless, they agreed that wage subsidies had been an incentive to participation, and they would like to receive the subsidies again if they become available.

The wage subsidies provided in the 1989-90, 1990-91, and 1991-92 school years to employers participating in the Student Youth Apprenticeship Program were used as an incentive to recruit employers and develop new programs. It is probable that the availability of the subsidies allowed youth apprenticeship training in Alabama to initially expand faster than if the subsidies had not been available. However, the researcher observed that the identification of wage subsidies as an integral part of the youth apprentice training concept has been counter-productive. Since funds allotted for wage subsidies were modest, only a limited amount of subsidized training slots could be made available. Dependence on the availability of limited wage subsidies therefore defined and limited the number of students that could enter youth apprenticeship training.

In the 1992-93 school year, the appropriation for the wage subsidy was entirely eliminated and the number of registered youth apprentices fell from 151, in the previous year, to 23. Although an undetermined number of unregistered youth apprenticeship training programs were also operating with employers who sponsored regular apprentice training programs, the number of students receiving youth apprenticeship training was still considerably less than in the previous year, as evidenced by reports from the employers and program administrators interviewed. It is also conceivable that the quality of these programs will deteriorate in the absence of the formal youth apprenticeship structure that is inherent in federal regulations and registration with the U.S. BAT.

Promotion among Employers. On a question concerning "What would you tell other employers?" 16 of the employers stated that they would promote participation in youth apprenticeship, reporting that it lowers training costs and increases profits. One former participating employer stated that he would advise others against participating, unless the trainees' wages were subsidized. It was interesting that one participating employer stated that he would not say anything to other employers. Since he found participation in the program to be profitable, he would prefer saying nothing to the competition in hopes of developing a competitive edge.

Identified Expansion Strategies. The participating employers, former participating employers, and program administrators provided suggestions concerning what needs to be accomplished to expand apprenticeship training in the business community. These suggestions are summarized below.

1. Implement marketing and public relations activities to inform employers, students, parents, and the community about the benefits and availability of the program.

2. Upgrade the image of skilled manual trades and recruit and counsel greater numbers of quality students into youth apprenticeship training.

3. Provide more state and federal funds to increase technical assistance and monitoring activities by the LEA and the federal government.

4. Streamline the initial development process and reduce the amount of paperwork required by employers.

5. Decrease restrictions and provide exceptions to the Child Labor Laws.

6. Provide transportation to and from the job site for students who have lack transportation.

RECOMMENDATIONS TO FACILITATE SCHOOL-TO-WORK TRANSITION

In order to facilitate the participation of public and private sector employers in school-to-work transition programs for non-college bound youth, strategies must be implemented to accentuate employers' experiences of success, identified in this study, and eliminate the barriers to participation that have been identified as discouraging employers' interest in the program and which have no basis in law.

The following recommendations were developed to enhance the possibility and practicality of significantly expanding youth apprenticeship as a school-to-work transition strategy for non-college bound youth in Florida.

Implement Public Relations and Marketing Activities

Develop and implement public relations programs aimed at students, parents, teachers, and counselors, with the objective of raising the image of careers in technical professions, and of postsecondary instructional systems that operate as alternatives to college.

Develop and implement promotional activities to attract greater minority participation into youth apprenticeship programs.

Implement marketing activities through trade and business associations to inform industry of the advantages, operation, and availability of youth apprenticeship training.

Address Immaturity and Attitude Problems Among Youth

Integrate employability skills training throughout the K-12 curriculum to enable students to learn behaviors that are expected of them in the world of work.

Focus development efforts on initiating youth apprenticeship programs in non-hazardous occupations, retaining the protective effects of child labor legislation.

Provide Scheduling Alternatives

Provide alternative school-work schedules to the traditional half-day cooperative education schedule.

Improve Student Placements

Implement more occupational preference testing to determine students' career interests. Use this information, in addition to instructional background, teacher

recommendations, GPA, and other selection criteria, before students are placed with participating employers.

Focus development efforts on initiating youth apprenticeship programs in high-demand, high-wage occupations identified for each planning region by the Florida Occupational Forecasting Conference.

Implement Employer Incentive Programs

Implement government purchasing procedures that would provide for preference contracting or contract set-asides to companies that participate in youth apprenticeship programs.

Refrain from the use of wage subsidies in most youth apprenticeship programs as an incentive to attract employer participation. Instead, the use of wage subsidies as an incentive should be reserved for attracting employers to participate in hard-to-implement training programs, such as those emphasizing the recruitment of students from populations targeted by the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990.

Reform Administrative Procedures

Streamline administrative procedures so that the employer has a minimum amount of paperwork.

Provide technical assistance for the professional preparation and development of the cooperative education coordinators in order to help these people better understand the potential of youth apprenticeship and improve their attitudes concerning expansion. Also encourage school districts to increase the number of coordinators who can provide more promotion and monitoring activities.

Reorganize Governance

Implement third-party brokerage to participate in the partnership with the local education agency and employers. This third-party broker would promote, register, and monitor youth apprenticeship programs, and would itself be monitored and assisted by the U.S. Bureau of Apprenticeship and Training. The broker could be a private consulting group, university, or state agency. The purpose of this governance structure would be to move the federal government one step away from local youth apprentice training programs, while allowing the Bureau to maintain control over the registration, credentialing, and maintenance of a national standard.

GENERAL CONCLUSION

Contributors to the literature have described the lack of, and need for, an effective school-to-work transition system for typical non-college bound youth in the United States. Furthermore, the evidence and conclusions in the literature reviewed suggested a need for research to better understand factors perceived by employers as bringing success as a result of participating in school-to-work transition programs, and barriers to participation, in order to develop recommended strategies to facilitate the implementation of a school-to-work transition system.

Youth apprenticeship training was researched because it was identified in the literature as having characteristics associated with successful school-to-work transition programs, it is being used in other countries identified as having effective transition systems, and it is being promoted by the federal government and various scholars as a potential program to solve school-to-work transition problems in America.

It is worth noting that much of the literature on school-business partnerships and school-to-work transition programs was concerned with the mechanical operations of the programs. A considerable amount of this literature is devoted to identifying school-business partnership characteristics of effective school-to-work transition programs. In contrast, very little of the conclusion presented above addresses program operations. This is due to the structure of the youth apprenticeship training concept inherently containing the majority of the characteristics associated with transition program effectiveness. It is, in fact, these inherent characteristics that give the youth apprenticeship training concept its structure.

In this study, the mechanical operations of the programs seemed to be such that everyone involved was relatively satisfied with the delivery system. This has allowed other factors to be identified concerning the employer's perception of success from participating in the program, and the employer's perception of barriers to experiencing that success.

The findings of this study demonstrate the need for employers to experience success from participating in school-to-work transition programs, and the need for education and government to minimize barriers to employer participation through the recommended strategies. These findings will prove useful to any entity engaged in the development or implementation of youth apprenticeship training programs, and other school-to-work transition systems utilizing on-the-job training on a national, state, or local school district level.

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