The U.S. Office of Education (USOE) supported the development of four career education models in the 1970s: school-based, later comprehensive career education model; employer-based, later the experience-based career education model; home/community-based model; and the residential-based model. Establishment of the Office of Career Education (OCE) in USOE led to a number of projects aimed at demonstrating the effectiveness of comprehensive K-12 career education. State departments of education also supported the curricular infusion of career education concepts. The demise of OCE and the rise of educational reform movements in the early 1980s drew attention away from career education. However, Career Information Delivery Systems, the 1984 Perkins Act's recognition of career guidance and counseling programs, and the National Career Development Guidelines maintained some visibility for career education and development. In the 1990s, new reform movements are focused on economic and work force development, of which career development has become an essential component. New roles are emerging for counselors, teachers, and career development specialists. The early emphasis in career education on school-business collaboration is echoed in current attempts to build partnerships and involve families and communities. Critical issues for shaping career development in the 21st century include the following: a need for systematic research on the effectiveness of career education/development, teacher and counselor preparation, counselor certification and licensure, multicultural awareness, and school-to-work transition for at-risk youth. (Contains 41 references.) (SK)
Career Education Revisited: Implications for the 1990s

by

Arthur F. Terry
Nancy Hargis

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FOREWORD

The Educational Resources Information Center Clearinghouse on Adult, Career, and Vocational Education (ERIC/ACVE) is 1 of 16 clearinghouses in a national information system that is funded by the Office of Educational Research and Improvement, U.S. Department of Education. This publication was developed to fulfill one of the functions of the clearinghouse—interpreting the literature in the ERIC database.

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Ray D. Ryan
Executive Director
Center on Education and Training for Employment
EXECUTIVE SUMMARY

Career education in the United States took shape in the 1970s under the leadership of Sidney Marland, Commissioner of Education. After nearly 25 years of dramatic changes in the world, the future direction of career development is now being determined. This review of the last quarter century of career education focuses on the four models supported by the U.S. Office of Education (USOE) in the 1970s: (1) the school-based, later comprehensive career education, model; (2) the employer-based, later the experience-based career education, model; (3) the home/community-based model; and (4) the residential-based model.

Lessons learned from the development of these models and the establishment of the Office of Career Education in USOE led to a number of funded projects aimed at demonstrating the effectiveness of comprehensive K-12 career education. State departments of education also supported the infusion of career education concepts into the curriculum.

Then, in 1981, the Office of Career Education was abolished, and the rise of educational reform movements in the early 1980s drew attention away from career education. However, the National Occupational Information Coordinating Committee’s (NOICC) support of Career Information Delivery Systems and the 1984 Perkins Act’s recognition of career guidance and counseling programs maintained some visibility for career education and development. NOICC also sponsored the development of the National Career Development Guidelines, which are now being used by more than 30 states to establish comprehensive career development programs.

As career development moved into the 1990s, the focus shifted to economic and workforce development. Influential reports such as those by the Secretary’s Commission on Achieving Necessary Skills (1991) and the Commission on the Skills of the American Workforce (1990) formed the basis of a new wave of reform movements in schools, of which career development has become an essential component. New roles are emerging for counselors, teachers, and career development specialists. The early emphasis in career education on school-business collaboration is echoed in current attempts to build partnerships and involve families and communities.

Critical issues for shaping career development in the 21st century include the following:

- A need for systematic research on the effectiveness of career education/development
- Teacher and counselor preparation
- Counselor certification and licensure
- Multicultural awareness
- School-to-work transition for at-risk youth
INTRODUCTION

The world has changed dramatically since Sidney Marland issued his call for the nation to include career in education in 1971. In the intervening almost quarter century, dramatic changes have occurred around the world that will affect the career aspirations and opportunities of Americans into the 21st century.

This paper reviews career education by focusing on the four program models developed through the U.S. Office of Education (USOE) during the 1970s: the school-based, employer-based, home-based, and residential-based models. They were designed to infuse concepts of career education into the public school curriculum, to develop career applications for at-risk out-of-school youth, to reach citizens in their homes via the media, and to provide an alternative setting to assist disadvantaged and dislocated families.

Career education in the United States is reviewed from an historical perspective and some directions for the future based on the experiences of the past 25 years are suggested. The early days of career education in the 1970s are revisited and examined, the changes of the 1980s chronicled, and their relevance today discussed.

The four career education models serve as the focal point for review. Given the extensive career education literature in the ERIC database and a variety of texts and anthologies, the boundaries inherent in the models were helpful. The paper concludes with a list and examination of critical issues and proposes recommendations for research that offer direction and strength for the career development of youth and adults into the next century.

Definitions

Career education, for purposes of this paper, was well defined by Kenneth B. Hoyt in 1977 in the monograph *A Primer for Career Education*. Although Hoyt continued to refine his concept over the decade, this version has particular relevance in 1992. Hoyt proposed that career education be defined as—

> an effort aimed at refocusing American education and the actions of the broader community in ways that will help individuals acquire and utilize the knowledge, skills, and attitudes necessary for each to make work a meaningful, productive and satisfying part of his or her way of living. (Hoyt 1981, p. 9)

Career development is a concept that has evolved over the 20th century. It is an umbrella concept, which according to McDaniels and Gysbers (1992) "is increasingly being defined as the combinations and sequences of life roles, the settings in which the life roles unfold, and the planned and unplanned events that occur in people's lives. Career development is being seen more and more as the unfolding and interaction of roles, settings, and events all through the life span" (p. 3).
State of the Art in Career Education in the 1970s

The career education movement was formally launched by USOE Commissioner Sidney P. Marland, Jr., in 1971 through a speech he delivered at the convention of the National Association of Secondary School Principals (Marland 1971a). That speech promoted career education as an educational reform movement having at its base a commitment to developing a sense of usefulness, purpose, and meaning for both student and teacher in every classroom and for every subject. Marland proposed, as a beginning to this ambitious effort, that concentration be placed on helping pupils at all levels of education understand relationships between the subject matter they were asked to learn in school and competencies required for success in the workplace.

The primary vehicle selected to help students develop an understanding of these relationships was labeled "infusion." The concept of infusion was very carefully developed and implemented during the 1970s so as to include several crucial aspects. First, the term infusion had to be clearly distinguished from the term add-on. Above all else, it was vital that K-12 teachers not perceive career education infusion activities as ones that must be added to an already full schedule. Rather, infusion had to be seen as part of good teaching.

Second, a strategy was adopted to portray infusion as using part of the time all successful teachers take to motivate students to learn the subject matter. This emphasis made it clear that career education was asking that no part of the time reserved for imparting subject matter itself be used for infusion activities. The importance of the subject matter was to remain intact.

Third, the 1970s saw efforts aimed at providing hard data to demonstrate that, when a career emphasis is infused into classrooms, pupil acquisition of subject matter actually increases. A career emphasis shows how the subject matter is related to the knowledge and skills needed in the world of work. In spite of severe weaknesses in experimental designs due to difficulties in establishing matched experimental and control groupings, a considerable amount of qualitative evidence was accumulated during the decade demonstrating, or at least implying, that a career infusion approach could lead to increased pupil academic achievement (Bhaerman 1977; Bonnet 1978; Bryant 1976; Enderlein 1976).

Fourth, a concentrated effort was made to include members of the business/labor/industry community as resource persons in classrooms. These community members were to be used as experts in showing pupils and teachers how mastery of various kinds of subject matter is required for occupational success. Emphasis was placed on motivating pupils to learn by offering them actual workplace experiences.

Fifth, from the beginning, conscious efforts were aimed at assuring teachers that a career approach to pupil motivation must be viewed as only one among many ways teachers can use to motivate pupils to learn. Teachers were encouraged to see the goal of education as preparation for work as only one among several basic and important goals of education in the United States.

Sixth, the career infusion approach was systematically pictured as one that would be appropriate for all of the pupils some of the time—and for some of the pupils almost all of the time. The principle being promoted was that almost all pupils—including those planning to attend college—
would eventually use their education as members of the U.S. work force, thus making a career infusion approach appropriate for any group of pupils in any class.

The Initial Implementation

Obviously, such a major innovation in education could not be launched with speeches alone. Commissioner Marland proclaimed career education as "the number one goal of the U.S. Office of Education" and accomplished the following:

- Established a Career Education Development Task Force in the National Center for Educational Research and Development, a bureau within the Office of Education

- Called together an interdisciplinary panel of scholars and practitioners from schools and communities to think through the implications of what he had started

- Contracted for 16 regional conferences on career education targeted at the major decision makers in each of the 50 states

- Conducted a conference for 75 education deans from major colleges and universities

- Allocated all the funds at his disposal to support the development of the concept

Career education became a household word and high priority activity in nearly every state department of education and many school districts throughout the country.
DEVELOPMENT OF THE FOUR MODELS

The major investment of available resources by Commissioner Marland was devoted to the development of "model" career education programs that would test a variety of assumptions and ideas by putting them into practice. By developing career education programs in different settings, with different organizational structures, and for different groups of people, the Commissioner intended to find out what would work and what would not work.

It should be noted that the Commissioner obviously bypassed the traditional research and development procedures of the educational establishment. For example, he did not transform ideas about career education into hypotheses and test them through research. He did not launch an expensive, long-term curriculum development effort. Instead, he took the approach of a practitioner: He simply said, "Let's try it and see if it works."

Commissioner Marland obviously believed that much of career education would work. His scenario was not secret. He clearly indicated his strategy from the beginning and reiterated it on many occasions. For instance, at the annual convention of the American Vocational Association in Portland, Oregon, in December 1971, he said:

We're asking for significant increases next year to continue the model building and the exploration. I hope the time is very near when the reform message of these model buildings, of these demonstrations, and of the action that I hope you will be taking in your communities is so specific and so real and so promising that significant sums of money can be sought and won from both the Administration and the Congress. I feel confident that it will. (Marland 1971b, p. 49)

The Commissioner wanted to develop several career education prototypes as fast as possible so that he could compare alternative assumptions about delivering career education and parlay the successful developmental efforts into more substantial funding of the renewal of U.S. education. This strategy may not have pleased many of the elite in the educational research community, but it was a politically prudent and realistic plan for the Commissioner. Given his probable short tenure in office, the parameters of his authority, and the resources at his disposal, it is difficult to criticize his strategy.

The four models, which were the responsibility of the newly established Career Education Development Task Force, were as follows:

1. The School-Based Model, later known as the Comprehensive Career Education Model (CCEM)

2. The Employer-Based Model, later known as the Experience-Based Career Education Model (EBCE)
3. The Home-Based Model, later known as the Home/Community-Based Model

4. The Residential-Based Model

The School-Based Model

Probably the most widely known of the career education models is the School-Based Model, renamed the Comprehensive Career Education Model (CCEM) by the Center for Vocational Education at The Ohio State University, which developed it (Reinhart 1979). This model was an attempt to use the existing educational establishment to deliver career education. Although purported to be one model, it was implemented in six different school districts: Hackensack, New Jersey; Pontiac, Michigan; Atlanta, Georgia; Mesa, Arizona; Jefferson County, Colorado; and Los Angeles, California.

It was assumed that there were many effective career education programs in existence throughout the country and that the model developers could quickly "engineer" a comprehensive program by assembling a variety of high quality components from selected school districts in the vanguard of the career education movement. It was further assumed that the model developers could fit these pieces together into a rational system of education from kindergarten through 12th grade, fill in a few undeveloped voids, and organize it in such a manner that other districts around the nation could readily adapt and implement the model in their schools. The time schedule allotted for developing the model reflected this thinking, as illustrated by the following in an early description of the CCEM (Reinhart 1979, p. 7):

- Assemble tested career education programs by September 1, 1972.
- Provide a prototype CCEM for adoption by other school systems by December 31, 1973.
- Provide a plan for the long-range development of the CCEM by September 1, 1974.
- Provide a refined CCEM, based upon validated research and development data, for adoption by December 31, 1979.

This schedule of outcomes reveals the essence of the strategy. December 31, 1973 was a "watershed" date. A rough operational prototype was to be ready by this date. Then, the project would launch a long-range refinement and validation phase. This strategy would provide a visible "product" for early adopters by the end of 1973, and, it was hoped, some evidence for further support for career education. Subsequent events forced the abandonment of this strategy, as revealed later.

The Employer-Based Model

The Employer-Based Model was an attempt by the Office of Education to respond to the growing chorus of critics expressing their disenchantment with the public school system, especially with vocational education programs. The 1973 Forward Plan for Career Education Research and Development of the National Institute of Education identified four underlying assumptions of this model (Reinhart 1979, p. 7):

1. The secondary school systems fail to prepare students for self-sufficiency and adulthood, and the public school is irrelevant for a significant percentage of youth.
2. The public school system is inherently incapable of even helping to solve the problem.

3. The most appropriate way to prepare many adolescents for their careers is through the employment community.

4. There are untapped natural incentives that will induce employers to become involved in work-centered education for adolescents.

As conceived initially, the program would be created, developed, operated, and entirely supported by a consortium of industrial, commercial, and other employers and assisted by parents, unions, community agencies, and other organizations. It was charged with developing a single, comprehensive educational program that integrated academic, general, and vocational curricula for students between the ages of 13 and 18. The program would not be dependent upon public school facilities or resources.

Initially, the Office of Education contracted with two educational laboratories—Research for Better Schools and Far West Laboratory—to undertake feasibility studies and to develop specifications for implementing the model. At the conclusion of these contracts, the strategy for developing the model was similar to the strategy of the School-Based Model. That is, four pilot projects were launched by Appalachia Educational Laboratory, Far West Laboratory for Educational Research and Development, Northwest Regional Educational Laboratory, and Research for Better Schools. These were essentially "engineering" efforts. Because several significant problems were encountered in these pilot projects, major changes were required in later efforts.

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**The Home-Based Model**

The Home-Based Model was allegedly inspired by the success of "Sesame Street," an educational television program for young children. It was originally an attempt to develop and coordinate learning systems that would reach certain home-based populations: women, the aging (aged 55-64), the elderly (over 65 years), and young people (aged 18-24) who were caught between formal education and work. Initially, three general approaches were conceived for the Home-Based Model:

1. A career-oriented television program to motivate home-based target groups to study for a career, to provide related information, and to provide some limited instruction for selected occupational competencies.

2. The development of home- and community-centered educational systems using television, correspondence programs, radio, and other instructional aids.

3. Career clinics in the community to provide career guidance and counseling, referral services, and information on relevant educational programs.

This model received less funding than the other models. Two feasibility studies were contracted—one with the Education Development Center in Newton, Massachusetts, and the other with the Rand Corporation in Santa Monica, California. The Education Development Center was subsequently given a contract for a pilot project in Providence, Rhode Island, to work with the problems of adults and adolescents who were neither employed nor in school. As it evolved, this project did not attempt to teach skills and attitudes directly. Rather, it was designed to inform individuals about existing work and training...
training opportunities in the community and to apply mass communication media to reach out to and assess the career interests of selected home-bound populations (Reinhart 1979).

The Residential-Based Model

The establishment of a Residential-Based Model was apparently more a political necessity than a conceptual desire. Forces were set in motion on April 21, 1967, when Senator Metcalf of Montana advised the Senate that the Glasgow Air Force Base in Montana was to be closed down. This huge complex, costing more than $100 million and barely 19 years old, could become, in the words of Senator Metcalf, "with imaginative and resourceful planning, a valuable national asset" (Reinhart 1979, p. 10). Subsequently, Senator Metcalf introduced a bill, the Northwest Regional Services Act (S 1602), creating the Northwest Regional Services Corporation and authorizing the transfer to the corporation of all rights and title to the air base. Furthermore, the bill authorized the establishment of a variety of training and research projects at the facility (ibid.).

Between April 21, 1967, when Senator Metcalf brought the closing of the air base to the attention of the Senate, and April 29, 1971, when the Mountain Plains Regional Educational Center, Inc., was awarded a $4 million grant by the Office of Education to begin the development of the Residential-Based Model, many federal agencies and study groups, along with many government officials, tried to decide what, if anything, the abandoned air base offered. (Although this history provides a very interesting political narrative, it is not germane to the purpose of this paper.) It is sufficient to acknowledge that the Residential-Based Model was more the child of political efforts than of rational conception.

The Residential-Based Model was quickly designed and established to rehabilitate whole families, not merely individual bread winners. Disadvantaged families from rural areas of Idaho, Montana, Wyoming, North Dakota, South Dakota, and Nebraska were brought to Glasgow, Montana. Upon arrival, a "prescription" guiding the rehabilitation of the entire family unit was drawn up from individual interviews, personal data, interests, needs, aptitude data, and the availability of facilities and activities. The programs included counseling, recreation, and home services for the families, as well as vocational preparation. Employment upon completion of the residency was guaranteed by the home state of each family, and assistance with finding jobs was provided.

The underlying assumptions of the Glasgow project were as follows:

- Formal schooling alone is not sufficient to help poor families.
- The problems of many poor families go beyond the lack of specific job skills for an adult member. They also include lack of household management skills, lack of health and nutrition knowledge, and lack of child care skills. Extensive family counseling is also needed.
- The best way to help poor families is to move them away from their present environment into a controlled residential environment.

Some Practical Lessons

Viewing the initial phase of the development of the models from the perspective
that they were practical inventions rather than the products of a rigorous research and development effort, a number of lessons about the continued development of career education can be derived from this early period.

First, it is now evident that some assumptions were not valid. For instance, in the School-Based Model it was assumed that there was a sufficient number of good career education programs that could be assembled, reworked, and coordinated into a well-articulated operational prototype for demonstration purposes. This proved not to be the case. Curriculum experts at the Center for Vocational Education were forced to reject most of the curricula they evaluated and had to spend considerable time developing what they needed. Furthermore, none of the existing curricula that were deemed adequate had been previously tested to determine whether they accomplished what they purported to deliver. In short, the state of the art was more primitive than had been originally assumed.

Leaders in the Employer-Based Model discovered that their assumption that academic training as well as skill training could be provided in the plant or office was unrealistic. Many businesses and industries were not geared to provide the related academic training and, furthermore, were predisposed against developing that component of the program. Hence, academic training had to be offered in some sort of separate educational institution.

In addition to the major emphases upon program development and model design in career education during Fiscal Year 1971, another significant occurrence was the conceptual development of 15 occupational clusters that synthesized the major categories of commonality among the 20,000 occupations listed in the Dictionary of Occupational Titles. The goal was to help persons become acquainted with the nature of the occupational structure in terms of the educational preparation needed to enter it. It was an attempt to help teachers and students better understand and appreciate the career implications of subject matter.

In FY 1972, other USOE units became quite active in career education. Higher education began to explore the meaning of career education for postsecondary institutions. The Bureau of Education for the Handicapped increasingly supported career education initiatives aimed at identifying the diversity of careers for which handicapped students could prepare and at which they could excel. Projects were also underway in elementary and secondary education and in programs funded by the Women's Educational Equity Act.

Development and training of personnel for career education under various vocational education authorities continued to improve vocational education's ability to respond as a key component of career education. In 1972, $6.875 million was spent to train 7,000 participants including state staff, teacher educators, and local school teachers, administrators, and coordinators. In addition, deans and professors of education at 75 universities were provided inservice training in career education.

When the Education Amendments of 1972 were passed, Commissioner Marland was appointed to the post of Assistant Secretary of the U.S. Department of Health, Education, and Welfare, establishing high-level support for career education. The Education Amendments of 1972 also created within USOE a Bureau of Occupational and Adult Education (which incorporated the previous Bureau of Adult, Vocational and Technical Educa-
tion) with its own Deputy Commissioner and specific responsibility for numerous vocational, technical, occupational, and adult education programs. In particular, career education was identified as one of its responsibilities.

By FY 1974, career education had assumed a significant role in the federal structure through the newly created Office of Career Education. The role of the Office of Career Education was divided into two categories (Marland 1974, p. 302):

1. Comprehensive Career Education Projects—Those activities that, for all students in the educational levels served, seek to (1) develop and expand career awareness, (2) provide opportunities for exploration and/or skill attainment in careers of their choice, (3) provide career-oriented guidance and counseling, (4) provide career placement services, (5) improve cognitive and affective performance through restructuring the curriculum around a career development theme, and (6) provide training for education personnel to enable them to meet the preceding objectives.

2. Career Education Support System Projects—Those activities that contain one or more of the following as their only objective(s): to (1) provide training for education personnel to improve their capability to design, operate and/or evaluate one or more aspects of Comprehensive Career Education Projects; (2) design, develop, test, demonstrate, or disseminate career education curriculum materials; or (3) design, develop, test, demonstrate, or disseminate career education management materials (case studies, evaluative designs, and so on).

Thus, Comprehensive Career Education Projects were operational models serving students in various grade levels, whereas Career Education Support System Projects indirectly served students through the development of materials and staff training. In relation to these categories, the Office of Career Education was assigned the tasks of administering assigned programs of grants and contracts as well as coordinating all career education programs within the U.S. Office of Education.

With the passage of PL 93-380 (the Education Amendments of 1974) on August 21, 1974, the Commissioner of Education was for the first time authorized to expend funds (up to $15 million each fiscal year until June 10, 1978) in direct support of career education. This legislation also authorized the establishment of the Office of Career Education, to be headed by a director who was to report directly to the U.S. Commissioner of Education. On April 12, 1974, Dr. Kenneth B. Hoyt was appointed Associate Commissioner for Career Education. In addition, the legislation authorized the appointment of a National Advisory Council for Career Education. In essence, this legislation represented the first Congressional mandate for career education, making it a law of the land and clarifying the shape of its leadership.

Over half of the funds expended for career education from 1970 to 1978 were aimed at demonstrating the effectiveness of career education in comprehensive K-12 efforts. These beginning attempts placed importance on acquainting persons with the career development process, using a strong emphasis on the traditional values of a work-oriented society. Examples of such emphases found in Career Education: What It Is and How to Do It (Hoyt et al. 1972) include the following:
• At least some people must work if society is to survive.

• All work needed by society is honorable.

• Work that is enjoyed by some people is disliked by others.

• A career is built from a succession of jobs.

These concepts—and many more—were seen as part of a developmental continuum starting with career awareness and going through career exploration, career planning, and career preparation all the way to career entry and progression. The emphasis was clearly on teaching persons something about the nature of the world of work coupled with an emphasis on both the traditional values of a work-oriented society and the basic elements in the career development process. One goal was to help persons develop more positive views of work in society and to prepare themselves for active participation in the work force.

In an article entitled "Something Happened: Education in the Seventies," Brodinsky (1979) reviewed 10 major events affecting U.S. education during that decade. After noting that the average life of an educational reform in the United States was about 3 years, he pictured career education as still "alive and doing well" after a full decade. A national survey of school board members and superintendents conducted by the National School Boards Association (Mecklenburger 1979) found career education to be the single new topic of the 1970s that both school board members and superintendents felt most deserving of increased attention in their school districts.
STATE OF THE ART IN CAREER EDUCATION IN THE 1980S

As the 1970s ended, career education held a strong position in schools across the country. National leadership remained, albeit at reduced levels. The National Diffusion Network, through the Joint Dissemination Review Panel, continued to identify and promote exemplary career education programs and practices (Guise 1989; Hamilton and Mitchell 1978). State departments of education and local schools focused on infusing career education concepts into the K-12 curriculum, establishing new policies to strengthen career education programs, and promoting comprehensive guidance and counseling programs with strong career components.

Oregon offered an example of state-level leadership in career education. In 1980, the Oregon Board of Education revamped its standards for public schools, including four career-related requirements.

Oregon Standard 581-22-201 (Oregon Administrative Rules 1980) set forth six goals for the public schools. These goals were designed to ensure that every student would have the opportunity to learn to function effectively in six life roles: INDIVIDUAL, LEARNER, PRODUCER, CITIZEN, CONSUMER, and FAMILY MEMBER. The PRODUCER role involved the development of knowledge, skills, and attitudes necessary for successful participation in the workplace. Oregon students would learn–

• of the variety of occupations;
• to appreciate the dignity and value of work, and the mutual responsibilities of employees and employers;
• to identify personal talents and interests;
• to make appropriate career choices; and
• to develop career skills.

Oregon Standard 581-22-316 (ibid.) required one-half unit (65 hours of instruction) of career development for each student during grades 9-12. These instructional hours were required to include experiences designed to assist them in doing the following:

• Evaluate previous career-related experiences
• Explore areas of interest and aptitude in depth
• Make tentative decisions in keeping with their career goals

Oregon Standard 581-22-405 (ibid.) required that each school district implement plans for career education with goals for each instructional program. Each district was mandated to provide career-related activities for every student through each instructional program at every grade level, K-12. This infusion was to be demonstrated by the inclusion of career-related goals in the planned course statements for every required and elective course in grades 9-12.

Oregon Standard 581-22-702 (ibid.) required that each school district have a coordinated guidance and counseling program to support the educational and career development needs of all students.
Districts were required to adopt program goals to support the educational and career development of all students.

Another example of state career education leadership is Ohio. The Ohio Career Development Program served 286,424 students in grades K-12 by the end of the 1970s. This program was a process model based on nine steps (Hoyt and Shylo 1987, p. 38):

1. Develop a rationale for the program.
2. Get support from the top.
3. Design the program as part of a larger human resource system.
4. Target the managers.
5. Bolster the basics.
6. Make sure you have the power to head the program.
7. Develop a variety of delivery systems.
8. Support the program with organizational policy.
9. Evaluate the program and promote the outcomes.

During the decade, the Ohio program experienced major growth. By 1986–

Ohio's Career Development Program had expanded from serving 289,424 students in grades K-10 (14 percent of Ohio's public school population) to serving 1,338,335 students in grades K-12 (76 percent of the public school population). Sixty coordinators managed career education programs from a state budget of approximately $7 million. (ibid., p. 54)

The Waning of School-Based Career Education

With standards or policies like these in place in many states, it appeared that career education was well positioned to continue its efforts and momentum at the state and local levels. However, that was not the case. Changing federal priorities, the demise of the Office of Career Education within the U.S. Office of Education, a deep and prolonged economic recession, and publication of A Nation at Risk, the report of the National Commission on Excellence in Education (1983), combined to weaken career education across the nation.

States scrambled to meet the challenges of promoting excellence in education advocated by A Nation at Risk and other studies. They responded by increasing high school graduation requirements in mathematics, English, science, and social studies, and career education began to fade from the scene, especially in junior high schools, middle schools, and high schools. Elementary classroom teachers were perhaps the remaining bastion of the infusion of career education into the curriculum in many districts. Career standards remained in effect, but in many states, they received little or no attention in terms of technical assistance, inservice training, curriculum development, or even compliance monitoring.

NOICC and Career Information Delivery Systems

The early 1980s brought the emergence of two programs that would advance career education during the decade, despite obstacles of funding, educational priorities, and perceived indifference. The National Occupational Information Coordinating Committee (NOICC) and its counterpart State Occupational Information Coordi-
nating Committees (SOICCs), were established by the Education Amendments of 1976. Their mission was to bring together the producers of labor market and occupational information with their users in support of vocational education and employment and training program planning and career decision making. In 1977, the Career Education Incentive Act added an emphasis on meeting the career information and decision-making needs of youth to the NOICC/SOICC mandates.

In 1979 NOICC began providing financial support and technical assistance to states in the development of Career Information Delivery Systems (CIDS). Since that time, NOICC has provided "start-up" grants to 26 state systems and funds to expand and enhance all systems. NOICC's (1992) Occasional Paper 4, Career Information Delivery Systems: A Summary Status Report, describes CIDS:

Career information delivery systems (CIDS) provide useful information for people who are exploring, planning, or making decisions about careers. CIDS contain national, state, and local information about occupations, educational and training institutions and programs, and related subjects. For example, they can tell you how many welders are employed in your area, their average wage, method of entry into the field, and available training programs.

Most of these systems are computer-based, but other media are also used to provide information. Tabloid newspapers and telephone hotlines, for example, can reach people in areas without access to computerized systems. Because the information is current, reliable, and easily accessible, CIDS are valuable tools for the career counseling process, serving both young people and adults.

Various CIDS computer programs have been developed over the last 20 years. Some were created by private companies; others, by universities or state agencies. . . . The information is developed according to nationally recognized professional standards. This promotes comprehensiveness, timeliness, and local relevance of information in systems across the country. . . .

Where are CIDS located? They are available in diverse settings, wherever people would seek help with job, self, and career exploration and decision making. They are found in schools, public libraries, Job Service offices, vocational rehabilitation agencies, and even shopping centers.

Who uses these systems? All kinds of people, at different ages and stages of their lives. The kind of information they need also varies. CIDS are designed to help individuals in various circumstances and settings find the type of information they need, when they need it. (NOICC 1992, pp. 1-2)

Carl D. Perkins Vocational Education Act of 1984

Passage of the federal Carl D. Perkins Vocational Education Act of 1984 brought new visibility and importance to career guidance and counseling. Previously defined as "support services," they were now recognized in federal statute as "programs" and charged with assisting individuals in the following areas:
To acquire self-assessment, career planning, career decision-making, and employability skills

To make the transition from education and training to work

To maintain marketability of current job skills in established occupations

To develop new skills to move away from declining occupational fields and enter new and emerging fields in high-technology areas and fields experiencing skill shortages

To develop midcareer job search skills and to clarify career goals

To obtain and use information on financial assistance for postsecondary and vocational education and job training

National Career Development Guidelines

Following passage of the Perkins Act, consultation on standards of quality for career guidance and counseling programs began to occur among NOICC; the U.S. Department of Education's Office of Vocational and Adult Education; educators in public schools, colleges, and universities; and representatives of many key professional associations. Among these professional organizations were the American Vocational Association's Guidance Division, National Career Development Association, American School Counselor Association, American Association for Counseling and Development (now the American Counseling Association), and the Association for Counselor Education and Supervision.

Discussion revealed that although several states and local educational agencies had guidance and counseling program standards and models, and major organizations such as the American School Counselor Association (ASCA) and the American Counseling Association had professional standards for counselors, there was no comprehensive linkage between the two that adequately addressed the intent of the Perkins Act.

The idea of generating the National Career Development Guidelines was thus born. It is interesting to note that initial discussions referred to the need for "career guidance and counseling standards." As planning progressed, however, the broader concept of career development became the umbrella for the guidelines, with career guidance and counseling its major, but not only, component. The notion of national standards, even if voluntary and adaptable to state or local needs, also was dropped in favor of national guidelines.

From 1986 to 1989, NOICC spearheaded the guidelines' development and implementation. Career development competencies and indicators were crafted for students in elementary schools, middle/junior high schools, high schools, and adults. The competencies and indicators were divided into three categories: self-knowledge, educational and occupational exploration, and career planning. They were written to be developmentally appropriate by age level and could be tailored to meet individual needs at any age. Counselor (and ultimately staff) competencies were identified, drawing heavily on existing ASCA standards. Organizational capabilities were described in terms of structure, commitment, and support for effective career development programs. Career development program improvement process manuals were drafted at the elementary, middle/junior high, high school, postsecondary, and community and business organization levels. A Trainer's
Guide and State Resource Handbook (NOICC 1989) were produced.

NOICC supported pilot testing of the guidelines products and program improvement processes, beginning in North Dakota, Mississippi, California, and Pennsylvania in 1987. In 1988, Washington, Oklahoma, Iowa, Missouri, Wisconsin, and New Jersey received NOICC grants to implement the guidelines. Oregon, Idaho, Alaska, Colorado, New Mexico, Kansas, Minnesota, Florida, South Carolina, and North Carolina were added in 1989. 1990 saw Utah, Nebraska, Michigan, Virginia, West Virginia, New Hampshire, and Connecticut receiving NOICC support for guidelines' implementation. By 1992, more than 30 states were using the guidelines as a blueprint for organizing and establishing comprehensive career development programs (NOICC 1989).

Although the school- and employer-based career education models may have been battered, they began to reemerge within comprehensive career development and guidance and counseling programs. North Dakota, Iowa, and Florida were among the states to adopt and energize the guidelines as a framework for their policies and programs. North Dakota passed the "Career Guidance and Development Act" in 1989:

The purpose of this Act is to provide support to local communities, through local educational agencies, for implementation of career guidance and development programs to prepare children and adults to make career choices based on and resulting from knowledge of the world of work, occupational, and labor market information, career exploration, self-assessment, and decision-making techniques.

The rules adopted by the superintendent shall require:

1. Involvement of the community through an advisory committee.

2. Assessment of the extent to which existing career guidance and development programs and services available in the community meet current anticipated needs.

3. Coordination of career guidance and development programs, services, and related activities provided by local educational institutions with local-level and state-level public and nonpublic agencies and organizations.

4. Evaluation of career guidance and development programs.

5. Formulation of monetary budgets for support of career guidance and development programs. (North Dakota Century Code 1989)

Iowa's Administrative Code included a career education requirement based on the National Career Development Guidelines:

Career Education. The board shall provide a comprehensive career education program. Curricular and cocurricular teaching and learning experiences from the prekindergarten level through grade twelve shall be provided for all students. The career education program shall be infused into the total educational program. The program shall include, but need not be limited to, awareness of self in relation to others and the needs of society; exploration of employment opportunities; experiences in personal decision making; and experiences
to help students integrate work values and work skills into their lives. (Iowa Administrative Code 1989)


It is designed to address the increasing gap between emerging job requirements and the ability of Florida's work force to meet them. It is designed to prepare students for the world of work, a competitive global marketplace that is changing every day. It is designed to enable all graduates to get a job. The Blueprint is the guide for preparing all Florida students, including those with disabilities, to begin a career and to continue their education. The Blueprint provides the framework for educators to prepare youth and adults to successfully enter and remain in their chosen fields of work. This framework requires the provision of a comprehensive education program including self-awareness, career awareness, academic and vocational preparation and placement components for each student. (Florida Department of Education 1989)

Specific objectives have been adopted in Florida by grade-level groupings, which have their roots in the National Career Development Guidelines:

Grades K-5
Students should have a career development program that infuses self, career, and technology awareness activities into the curriculum.

Grade 6
Students should have a program of personal assessment and technological literacy instruction.

Grades 7-8
Students should identify goals for which they are striving. Goals may change as further experiences are obtained. Four-year plans for grades 9-12 should be developed with input from students, families and school personnel. The plans should be evaluated at least annually and revised as requirements change or students' goals become better defined.

Grades 9-12
Students should complete high school with the competence to continue on to postsecondary education and to enter the work force. The strengthening of basic skills through applied learning should be a major component of both academic and vocational instruction.

Postsecondary
Students should complete postsecondary education programs which enable them to successfully enter the world of work, maintain competence in current employment, advance within their occupational fields or change occupations.

Grades K-Community
All levels of education should intensify efforts to share information with the intent of involving parents, business/industry and the community in the process of educating students and supporting Florida's economy. (ibid.)

Career education in the 1970s and early 1980s was an educational program. As career development moved into the 1990s, it became a focal point of economic and work force development programs.
STATE OF THE ART IN CAREER DEVELOPMENT IN THE 1990S

Career development in the 1990s will be heavily influenced by powerful factors that transcend the individualism of the 1980s. Societal trends and forces—political, economic, demographic, and technological—will combine to shape career development in this decade and into the 21st century. The research of the late 1980s and the early 1990s on trends in the workplace and employer needs conducted by both private and public organizations laid the foundation.

*Workforce 2000: Work and Workers for the Twenty-first Century* (Johnston and Packer 1987) identified a variety of economic forces that are affecting and will continue to affect the lives of Americans as well as projected workforce and workplace scenarios for the year 2000. Increasing productivity and efficiency in the face of international competition and marketplaces will determine the standard of living for future generations. The "outputs" of the educational system become the key link between the present and the future. In this scenario, productivity must increase in education as well as other industries. Citing educational productivity as "fundamentally unchanged since the days of Socrates," *Workforce 2000* challenged education to make technological advancements in computers, software, and communications the tools of the new learning environment and "teachers who are guides to the technology and the information sources rather than custodians of the knowledge" (pp. 66-67).

*Workplace Basics: The Skills Employers Want* (Carnevale, Gainer, and Meltzer 1988) was a landmark project cooperatively conducted by the American Society for Training and Development and the U.S. Department of Labor. Over a 2-year period, they researched the changing workplace and issued four reports. The topics were Organization and Strategic Role of Training, Technical Training, Accounting and Evaluation, and Basic Workplace Skills. The latter report perhaps served as a model for ongoing studies of employer needs. *Workplace Basics* proposed the need for seven skill groups. With learning to learn as the foundation, they also included the three Rs (reading, writing, and computation); communication—listening and oral; creative thinking and problem solving; self-esteem, goal setting, motivation, personal and career development; interpersonal skills, negotiation, and teamwork; and organizational effectiveness and leadership.

*America's Choice: High Skills or Low Wages!* (Commission on the Skills of the American Workforce 1990) examined the projected shortages of skilled workers outlined in *Workforce 2000* and concluded that U.S. employers are in fact pursuing a low-wage economic development strategy. With few exceptions, there is no great mismatch between the skills of workers and the workplace. However, if the low-wage strategy is not changed to one focused on high wages, the United States will quickly become a third-world economy. *America's Choice* therefore proposed a new educational system based on...
revised concepts of human resource investment, the organization of work, learning, and the assessment of mastery. A Certificate of Initial Mastery "would certify labor market readiness, and a mastery of the basic skills necessary for high productivity employment. The same Certificate would also be required for entry into all subsequent forms of education, including college preparatory and certified professional and technical programs." (p. 69).

*What Work Requires of Schools*, the report of the Secretary's Commission on Achieving Necessary Skills (SCANS 1991), moved the discussion of productivity and competitiveness even closer to the classroom. It is perhaps a further indication of work force needs as a driving force for school reform that this report was commissioned by the Secretary of Labor, not the Secretary of Education.

Foundation skills and competencies to be achieved by all students were identified after a year of interviewing business owners and managers, union representatives, and workers from many settings. The foundation requires competence in the following:

- **Basic Skills**—Reads, writes, performs arithmetic and mathematical functions, listens and speaks.

- **Thinking Skills**—Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons.

- **Personal Qualities**—Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty. (p. xviii)

In addition, each person must gain competence in five broad areas in order to be an effective and productive worker:

- **Resources**—Identifies, organizes, plans, and allocates resources (time, money, materials and facilities, and human resources).

- **Interpersonal Skills**—Works with others. Participates as member of a team, teaches others new skills, serves clients/customers, exercises leadership, negotiates, and works with diversity.

- **Information**—Acquires and uses information. Acquires and evaluates information, organizes and maintains information, interprets and communicates information, uses computers to process information.

- **Systems**—Understands complex interrelationships. Understands systems, monitors and corrects performance, improves or designs systems.

- **Technology**—Works with a variety of technologies. Selects technology, applies technology to task, maintains and troubleshoots equipment. (ibid., p. 12)

Taken together, these reports formed the backdrop and the foundations for reform in schools across the country. Oregon's Educational Act for the 21st Century, for example, was tied directly to the state's goals of having the best educated and trained work force in the nation by the year 2000 and a work force equal to any in the world by 2010. This legislation was patterned after the recommendations of *America's Choice*.

### Career Development and School Reform

Career development has become an essential component of school reform and restructuring programs. Career development is the thread interwoven from the
elementary years into adulthood that helps individuals focus on their role as an economic producer in society and to relate that role to all other life roles.

McDaniels and Gysbers (1992) see a "sense of urgency about the importance of helping people focus on their competencies rather than only on their deficiencies" (p. 15). They also see "the broader definitions of career and career development (were) being used with increasing frequency. Super (1990) continued to refine and clarify his lifespan, life-space approach to career development ... they provide a more fruitful basis for viewing, understanding, and describing clients' career development over the life span ... they provide clients with useful ways to perceive and order their past, present, and possible future life roles, life settings, and life events. This in turn helps further the achievement of their career goals" (ibid., p. 11).

Policy Issues

As school reform takes shape, a range of policy issues related to career development emerges. America's Choice poses a series of questions as choices to be made in this country that will determine its economic future. Some of these questions become the policy framework for school reform and for career development:

- Do we choose a new system that focuses on the demonstrated achievement of high standards? (Do we establish comprehensive, competency-based career development programs that assess student outcomes using a variety of techniques including portfolios and other methods of "authentic assessment"?)

- Do we choose a system that will reward real effort with better pay and better jobs in vocational and technical fields? (Do we change the existing cultural bias that values some occupations more than others? Can we change the stereotypes that surround vocational-technical programs, their teachers and students?)

- Do we choose to take responsibility for educating dropouts? (Do we provide career development opportunities that build self-concept and help young people understand the relationship between education and work?) (Commission on Skills of the American Workforce 1990)

On a more specific level, Reardon (1989) in Florida's Career Development Program Guide identified 12 policy domains to be addressed:

1. Definitions. Develop consensus on the meaning and interrelationships of career development, career education, career guidance and counseling.

2. State leadership. Establish the role and responsibility of state-level organizations, including business, industry, and labor.

3. State versus local or institutional roles in program development. Traditions of local control and state responsibility must be clarified in the arena of school reform.

4. Infusion of career development competencies versus presentation in separate courses. State and local leaders need to clarify the desired approaches and levels for the career development program.

5. School counselor/occupational specialist role. Examine and define the roles of all school personnel, the
community, parents, and students in career development.

6. Career information delivery systems. Examine the need for new or enhanced information and implementation materials to assist in educational decisions of career strands or pathways, tech prep/associate degree, and work-based learning alternatives.

7. State employment service and private industry councils established under the Job Training Partnership Act (JTPA). Determine the desired mix of interagency cooperation and coordination to meet the career development needs of students without unnecessary duplication of effort.

8. Out-of-school youth and adults. Establish entry points and alternative learning environments that will open career development opportunities to all potential students.

9. Standards. Set standards for the career development program and all facets of school reform that are benchmarked to the needs of the workplace and matched to the highest in the world.

10. Associations. Identify professional groups that can provide support for career development programs through advocacy, the provision of human and material resources, and assistance with assessment.

11. Accountability. Determine who will be accountable, at what levels, for process and student outcomes in career development.

12. Committee structure. Identify key leaders to provide direction and support to career development at the local, regional, and state levels. (Reardon 1989, pp. 12-13)

Roles of School Personnel

In 1989, the National Career Development Association (NCDA) and the National Occupational Information Coordinating Committee commissioned a Gallup Poll to identify the career needs of Americans. The findings support the need to do more in career development and to do it differently:

When asked if public schools are devoting the right amount of attention to helping students choose careers, 44% said they are not devoting enough, 33% said about the right amount, 2% said too much, and 21% were unsure.

Fifty-three percent reported that not enough time was being spent helping non-college bound students develop job skills so they can get a job after graduation, while 23% said about the right amount was being offered, 2% said too much time was spent, and 25% did not know how to respond.

Forty-one percent indicated that not enough time was being spent on helping students learn how to use occupational information about salary and working conditions. (Brown and Minor 1992, pp. 6-7)

It is disturbing that one-fourth to one-fifth of respondents to the Gallup survey had very vague knowledge of the career development activities that exist in the schools. How can these information gaps be remedied? Who should be responsible for a rejuvenated career development program that will meet the needs of students and adults alike?
Research and literature from the 1970s to the present suggest the strategies. Counselors play unique and pivotal roles in comprehensive career development programs. However, so do teachers, administrators, parents, and students. Comprehensive career development in the atmosphere of school reform is in fact a shared responsibility. Recalling the "waning" of career education in the 1980s, perhaps this time shared responsibility can be realized and sustained.

Examining the roles of counselors in career development and school reform, a variety of roles, most of them familiar ones, emerge. Counselors provide critical information to students and parents on the complete range of education, training, and employment options. Counselors are uniquely positioned to provide information and resources to teachers and administrators on career development as a lifelong process that will be addressed and integrated throughout the school curriculum. Counselors play significant roles in referral, service coordination, and intervention to ensure that all students can be successful, either within the "regular" school system or in alternative learning environments.

Major career development responsibilities for counselors, currently in draft form for discussion and planning in Oregon, are listed here. They bear a striking resemblance to those suggested in *The School Counselor's Involvement in Career Education* in 1980 by Herr, Miller, Whitfield, and Pinson (Burtnett 1980). They are also similar to the Career Counseling Competencies revised by the NCDA Professional Standards Committee (1992) and approved by the NCDA Board of Directors on January 11, 1991.

### Elementary Counselors and Child Development Specialists
- Develop and support business/labor and school partnerships
- Help students view themselves and their environment in a positive way in relation to life career roles
- Ensure that assessment and screening procedures provide for the early identification of talents and strengths
- Help parents understand their children's unique aptitudes and needs
- Provide curriculum enrichment in terms of skills in decision making, human relations, divergent points of view, listening, and feedback

### Junior High/Middle School Counselors
- Assist in development and administration of performance-based assessments in career development for fourth and eighth graders
- Provide information to students and parents on the total range of careers within the national, state, and local labor markets
- Provide consultative services to teachers, including resource identification and group guidance activities
- In cooperation with teachers, parents, business, and labor, reinforce the concepts of self-awareness and decision making, and introduce the concepts of educational and career planning
- Provide referral to appropriate services and alternatives to maximize student progress toward attainment of the Certificate of Initial Mastery
• Provide consultation to teachers on the infusion of career development concepts into all subject matter areas and the articulation of these concepts with elementary and high school programs

High School Counselors

• Assist in development and administration of performance-based assessments in career development for 10th-grade students and for those completing the Certificate of Advanced Mastery

• Facilitate student planning for college preparatory, vocational-technical, tech prep, or work-based learning options after high school

• Provide information to students and parents on the total range of careers within the national, state, and local labor markets

• Provide information on sources of financial aid for postsecondary education and training programs

• Provide liaison to local business, industry, labor, and community organizations

• Conduct group guidance activities that help students obtain identified career development competencies for Certificates of Initial and Advanced Mastery (Oregon Department of Education 1992)

After conducting exhaustive searches through the ERIC system to identify career activities and cross-referencing them to the National Career Development Guidelines, Splete and Stewart (1990) appear to agree that counselors are key players in the career development of students:

Efforts should be made to coordinate career development activities across levels and settings, as school districts implement K-12 comprehensive career guidance programs and as 2-year community colleges work more closely with high schools and 4-year colleges and universities.

More work should be done at the elementary school level by school counselors to aid teachers, because more activities are needed at this most important level, which sets the stage for lifelong career development. (p. 63)

In April 1992, a 151-item questionnaire was mailed to 1,225 counselors and career development specialists employed in Oregon schools by the Oregon State System of Higher Education (OSSHE). The purpose of the study was to "develop a profile of school counselors including information about their current job responsibilities, expected responsibilities in the future school reform context, training needs, and overall concerns/reactions related to (school reform)" (p. 1).

Among the key findings was that a majority indicated that, with implementation of school reform, teachers will be more involved in providing career advising to students than they currently are. They cited providing work-based opportunities and internships as among the areas in which they had the greatest need for training.

Selected comments shed further light on changing roles:

More testing (performance based) interpretation and more diversity in post high school training/education. More active involvement in making career choices based upon individual differences... Perhaps
classroom teachers can also assume some of the planning responsibilities by going back to advisor/advisee programs.

Our school has been heavily college oriented but I expect to see more emphasis on career training and preparation.

More emphasis on career goals and direction in the high school. I feel that there will be more of a direction toward tracking than currently exists. Counselors will be faced with an increasing percentage of high risk students.

Counselors will have to know more about career paths and be able to help students and their parents choose wisely. Counselors will have to be able to communicate the value of careers not requiring four-year degrees.

I would like ultimately to see a distinction made between career/guidance counselors and emotional/problem solving counselors. My experience is that more positions are of the first type when what is needed is more of the second! (ibid., pp. 7-9)

Involving Business, Industry, Labor, and the Community

From the early days, career education called for strong collaboration among the schools, the community, and the world of work. Employer-based career education models perhaps best fulfilled this mission. The challenge is heard anew in the 1990s as the business community takes leadership in defining its workplace needs and proposing strategies for educational reform.

The American Society for Training and Development (ASTD) identified career development as one of the seven skill groups that employers need in the contemporary workplace:

Employees who exhibit these (personal and career development) skills increase their value in the workplace and in the employment marketplace. . . . Unfortunately, the educational system provides little formal training in defining career direction and identifying the education and training needed to achieve career goals. . . . Training in personal and career development includes providing employees with techniques for understanding and expanding their skills inventories, career planning, and career management. Goal setting is important as is structuring individual career progression models that explore the training and educational preparation needed to meet career goals. (Carnevale, Gainer, and Meltzer 1988, pp. 13-14)

Splete and Stewart (1990) noted the importance of school-business partnerships: "More collaborative efforts should be made to involve business persons with educational institutions at all levels so that a current and realistic picture of the world of work is given" (p. 63).

However long the call for business involvement in education, despite notable exceptions primarily among major corporations and institutions, strong partnerships have not systematically emerged around the country. Neither have many businesses taken an active role in the career development of their own employees. Brown and Minor (1992) described the issue clearly:
It is undoubtedly a truism in the current political climate of de-emphasis of the role of government that any program cannot be successful unless it has backing from the private sector. Many businesses have shown an interest in increasing their employees' knowledge of career paths within their current companies. A few have even become involved in efforts to increase employees' knowledge of careers in businesses other than the ones employing them. Unfortunately, this altruistic attitude has not been demonstrated by many business leaders. (p. 82)

Involving Parents and Families

Analyzing the results of the Gallup survey commissioned by NOICC and NCDA, Brown and Minor (1992) argue that it is "abundantly clear that more and more people are going to need assistance, both with initial career planning and with recurring decision-making, as they choose to change jobs and/or are forced to do so. . . . Since not all of the burden for career planning can be borne by institutions, parents need to be alerted to the importance of career planning and given the skills to engage their children in meaningful career planning activities" (p. 83).

The impact of parents on the career decisions of their children has been studied and observed for decades. With all indicators pointing to parents as the single greatest influence in their children's career decisions, the literature shows few exemplary models. Changing family demographics and organization and the significant increase in dual income families may be among the reasons that more parents cannot or do not become actively involved with the schools.
CRITICAL ISSUES IN CAREER DEVELOPMENT FOR THE 21ST CENTURY

This examination of critical issues includes recommendations for research and programming that can strengthen career development.

Research and Development

Among the educational challenges cited in Workforce 2000 (Johnston and Packer 1987) are the need for competition and experimentation in schools and development of more valid and reliable outcome and progress measures. "Without such measurable productivity data, there is no rational way to modify the system to attain higher standards and greater efficiency" (p. 108).

There is a lack of systematic research on program effectiveness and student outcomes of career education and career development from the 1970s to the present. Evans and Burck (1992) report a "lack of consistent findings about career education and academic achievement leaves unanswered many of the questions that were asked when career education began" (p. 64). They recently completed a meta-analysis of 67 studies of the impact of career education on academic achievement, after conducting an exhaustive review of the literature on the outcomes of career education.

Evans and Burck's analysis "show(s) a quantifiable positive effect on student academic achievement by the use of career education interventions with an overall average effect magnitude of .16. The results suggest an even greater increase in academic achievement when subjects are grouped by subject matter taught (math and English), ability level (average), and grade level (elementary). In addition, results are increased if the program is in its second year of operation with the same students and if the average hours of intervention over nine months range from 151 to 200. Consequently, this integrative research has made it clear that the value of career education as a means of enhancing academic achievement is statistically supported" (ibid., p. 67)

Recent interest in performance-based assessment, "authentic assessment," and portfolios of student work offers new opportunities to document student career development outcomes. Identification of sample performance measures tied to the National Career Development Guidelines would significantly enhance the capacity to develop baseline data as a comparison for future assessment. If schools and postsecondary institutions adopted the evaluation framework suggested in the National Career Development Guidelines, "the potential for collecting systematic, comparable data would be greatly strengthened.

Teacher and Counselor Preparation Programs

In the 1970s teachers were prepared to infuse career education concepts into the K-12 curriculum. For example, the Inter-institutional Consortium for Career Education (a consortium of the 15 four-year
colleges in Oregon that train teachers, counselors, and administrators) held that if schools expected teachers to be knowledgeable about career education, applied academics, and work force preparation, appropriate preservice and inservice programs had to be offered (Interinstitutional Consortium for Career Education 1977). Emphasis on preparing teachers in career concepts waned in the 1980s and has not been rekindled in most states. In order for teachers to work effectively in restructured schools, they need to be trained in current concepts of career, including the importance of partnerships within the school and within the community at large.

Colorado State University received a grant from the U.S. Department of Education in 1990 "to develop, field test, and disseminate two sets of materials, one for use by school counselor educators and the other for use by vocational educators, showing how to integrate basic skills into vocational education . . . the school counselor can play a significant role in educational change. Planning how to integrate basic skills into curriculum and then doing so will require a change in the school counselor's role. . . . This change should have as its primary focus the implementation of comprehensive school counseling and guidance programs" (Feller and Daly 1992).

The Colorado State University project is especially significant given that counselor education programs across the country rarely include more than one course in "career." The Council for Accreditation and Related Educational Programs has established standards for counselor education programs that include a career development area. Based on the changing needs of schools and the workplace, Feller and Daly suggest a 12-hour minor sequence in career development be included in school counselor preparation programs.

In addition to career development theorists and assessment, the work should include portfolio interpretation, internships, knowledge of the business/industry/labor communities, labor market trends, occupational information, equity (gender, disability, ethnic background), multicultural understanding, program and curriculum development, evaluation, and coordination.

Certification and Licensure

In the basic endorsement for certification as a school counselor, there is limited if any requirement for career development and/or career education. In standard certificates, there is none. In order to sit for the National Board for Certified Counselors (NBCC) licensure examination, applicants must show evidence of 5 hours of career development. It is important to note that NBCC also offers the National Certified Career Counselor credential. Certification and licensure programs should be modified to reflect increased career development requirements in counselor education programs.

Theorists and Practitioners

Career development theory has evolved throughout this century. Conger (1992) cites the need to "do much research on why people do not follow through on their career goals after going through an apparently satisfactory career planning process" (p. 377). He further decries the "slowness of researchers to investigate the use of technological processes in counseling (e.g., intelligent computer assisted and computer-managed career counseling)."

After reviewing the career education models of the 1970s and the events of the 1980s, Conger concludes that career development theory appears to be generally
adequate to meet the needs of the majority of youth and adults. A scan of articles in recent issues of the Career Development Quarterly reveals ongoing interest and research into the career development of women, minorities, and adults. For the school-age population, however, practitioners and high quality materials are more in demand as the 21st century looms nearer.

Curriculum Revision

The departmentalized structure, with isolated teachers and classrooms, has marked the educational system for decades. The restructuring of K-14 education demands major changes in the organization of schools and colleges, with interdisciplinary teams working together to integrate instruction and to apply it to real world contexts.

An ERIC search conducted in conjunction with the development of this paper revealed hundreds of entries indexed by "career education" and "learning activities" or a related term. Unfortunately, the vast majority of these activities were developed in the 1970s and early 1980s. They generally exist only in microfiche form at this time, perhaps not a conducive medium for classroom teachers with limited time to design or adapt new career activities.

It would greatly assist curriculum revision and preparation of learning activities that can be cross-referenced to the National Career Development Guidelines if these microfiche documents could be retrieved into paper copy, reviewed and revised by a panel of practitioners, and made widely available to teachers and counselors across the country.

Multicultural Understanding

Today's workforce is composed of people who are more diverse than ever in nationality, culture, religion, age, education, and socioeconomic status. These people enter the work force with differing backgrounds, values, goals, and perceptions of acceptable behaviors. (Lankard 1991, p. 1)

Major changes in this country's demographic profile have occurred since the inception of career education in the 1970s. However, too few schools and too few workplaces have adapted their methods of operation to a more culturally diverse society. Comprehensive career development programs of the 1990s will address the unique needs of diverse cultures and assist youth and adults in making career decisions that are educationally, economically, and culturally relevant.

School-to-Work Transition for At-Risk Youth

As school reform progresses around the country, concerns will be raised for those students who fall behind and who are unable to succeed in the regular school setting. The Oregon plan calls for school districts to provide "alternative learning environments" that will offer a range of services designed to help these students succeed. The school-to-work transition will be an important focus of these programs for many young people.

Career development in the 1990s must be defined to encompass all students. Of the original four career education models of the 1970s, three were basically alternative education programs. Only the school-based model was conceptualized for all students. One challenge to career development at this time is to avoid establish-
ing a new set of alternative programs that label at-risk students and that are outside the mainstream of the school.

Reviewing the development and history of the USOE-funded career education models from the 1970s provides several insights for continued efforts in schools, higher education, and the private sector. The critical issues described in this section highlight a sampling of the areas in which career education and career development are challenged into the next century.

Conclusion

Several conclusions appear appropriate from this review of career education from the 1970s to the 1990s:

1. The school- and employer-based career education models originated in the 1970s are viable in the 1990s. They are relevant for all youth—work bound, college bound, or both. School reform movements across the country require a solid career component if young people are to make informed and appropriate decisions on future study and work.

2. It is conceivable that the residential and home-based models may also find new applications. Residential programs for youth may build on the Job Corps model to provide access to career education and specialized education and training programs, particularly for rural and inner city youth and those most at risk. The home-based model's future is likely linked with low cost, widely accessible technological and telecommunications innovations.

3. Inservice and preservice training and ongoing technical assistance on comprehensive career development programs for counselors, teachers, and administrators are essential for their success.

4. Business partnerships are focal points for school reform and high quality career development programs.

5. Career information delivery systems must continue to adapt their information and its presentation to culturally and geographically diverse audiences. Evolving technologies will offer challenges and exciting opportunities for reaching these groups.

6. Parents and families need information to support the career decisions of young people.
REFERENCES

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Career Education Revisited: Implications for the 1990s, by Arthur F. Terry and Nancy Hargis.

This review traces the path of career education from the establishment of U.S. Office of Education-supported models in the 1970s through the effects of educational reform movements in the 1980s to a focus on career development for economic and work force development in the 1990s. Lessons learned and critical issues for the next century are drawn.

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