DOCUMENT RESUME

ED 189 323 CE 025 634

AUTHOR Drier, Harry N., Ed.; Pfister, Linda A., Ed.
TITLE Career and Labor Market Information: Key to Improved Individual Decision Making.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY Employment and Training Administration (DOL), Washington, D.C.
PUB DATE Mar 80
NOTE 73p.
AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Career Counseling; *Career Guidance; Employment Projections; Employment Statistics; *Information Services; *Information Utilization; Labor Market; *Methods; *Occupational Information; *Program Improvement; Secondary Education

ABSTRACT

The increased complexity of the work place and the technology for use in storing and dispensing career and labor market information led to the development of this monograph. Based on the problems and solutions identified through a current literature search and national symposium, this monograph contains (1) a framework for the establishment or improved use of labor market information; (2) specific guidelines for the establishment, operation, and evaluation of new uses of labor market information for guidance and counseling purposes; (3) specific examples of effective methods and techniques of using labor market information for guidance purposes; (4) specific examples of ways of implementing multi-agency collaboration in the use of labor market information on training and career guidance; and (5) a set of recommendations and priorities for future education and labor initiatives. (Four presentations delivered at the national symposium are summarized in the introduction.) (BM).

CAREER AND LABOR MARKET INFORMATION: KEY TO IMPROVED INDIVIDUAL DECISION MAKING

Edited by

Harry N. Drier
Linda A. Pfister

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

March 1980

FOREWORD

Career and labor market information focuses on the nature, characteristics, requirements, and benefits of occupations, education and training in the context of current and projected labor markets. It is because of the increased complexity of the work place and the technology available for use in storing and dispensing information that this monograph was written. Through searching current literature and conducting a national symposium, problems have been identified and solutions recommended.

This monograph contains (a) a framework for the establishment or improved use of labor market information; (b) specific guidelines for the establishment, operation, and evaluation of new uses of labor market information for guidance and counseling purposes; (c) specific examples of effective methods and techniques of using labor market information for guidance purposes; (d) specific examples of ways of implementing multi-agency collaboration in the use of labor market information on training and career guidance; and (e) a set of recommendations and priorities for future education and labor initiatives.

The National Center for Research in Vocational Education received funding from the Division of Labor Market Information, Employment and Training Administration, Department of Labor to prepare this report. The funding allowed the National Center to formulate the key issues surrounding labor market information; contract with several national leaders in the field; and assemble numerous scholars, managers, and practitioners to interact and formulate recommendations. The following persons were involved:

Project Officer

Alan Moss, Assistant Chief, LMI Division

NCRVE Project Staff

Harry N. Drier, Project Codirector
Linda A. Pfister, Project Codirector
Joan Blank, Program Assistant

DOL Contributors

David Duncan, Director
Office of Policy and Planning

Russell Flanders, Executive Director
National Occupational Information Coordinating Committee

Robert Hotchkiss, Chief
Employment Data and Research Division
California Department of Labor

Neal Rosenthal, Executive Director
Division of Occupational Outlook

Writers

Henry Borow, Professor of Psychological Studies
University of Minnesota

Edwin Herr, Head of Division of Counseling and Education Psychology
The Pennsylvania State University

Carl McDaniels, Professor of Education
Virginia Polytechnic Institute and State University

Reactors

Evelyn Ganzglass, Program Officer
Department of Labor

Marilyn Jacobson, Project Director
Northwestern University

Edwin Whitfield, Director of Career Education
San Diego County Department of Education

The National Center extends appreciation to the above persons for their scholarly writing and practical insights to improving the presentations and use of career and labor market information.

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

CONTENTS

INTRODUCTION

The Division of Labor Market Information, recognizing the widespread need to provide career guidance personnel with knowledge of the labor market, sponsored a symposium to bring national focus to issues and problems. The major objective of the symposium was to solicit ideas and support for initiating action to improve counselor understanding and use of Labor Market Information (LMI). The catalyst for this symposium was the 1979 Symposium on Occupational and Educational Information which was sponsored by the International Labor Organization and held in Turin, Italy.

Organization of the LMI Program

The United States Labor Market Information Program is administered by the Department of Labor through three organizations:

1. The Employment and Training Administration (ETA) has responsibility for defining the scope and operational use of labor market information and for funding, monitoring, and evaluating the activities of field organizations, as well as sponsoring the development and dissemination of LMI reference tools and data.
2. The Bureau of Labor Statistics (BLS) has responsibility for the development of methods and procedures for federal-state statistical programs.
3. State Employment Security Agency (SESA) Research and Analysis (R&A) units are responsible for carrying out the basic work in accordance with ETA policies and BLS technical directives.

Each SESA R&A unit operates a comprehensive LMI program aimed at meeting the needs of direct labor market participants (employers and jobseekers), indirect participants (unions and employment services), training and educational institutions, and organizations responsible for human resources planning. These state programs provide four basic types of labor market information output:

1. Occupational projections and labor force statistics on employment, unemployment, and labor turnover
2. Publications that furnish annual comprehensive reviews of state, prime sponsor, and area job market conditions; monthly updates of labor force developments; affirmative action information; special reports on the job market information for youth, women, veterans, and selected minority groups; information on job search techniques and local occupational openings and wages; planning information for vocational education; and directories of available LMI publications
3. Technical assistance and training in the availability and use of labor market information
4. Research and special projects to update LMI output and techniques.

Symposium participants were asked to assist ETA to design, deliver, monitor, and evaluate LMI/counselor training curricula and related materials by considering the following questions:

- How can ETA develop and provide LMI training to the 2,000 new school counselors that will begin work each year?
- How can ETA develop and deliver LMI training to the 45,000 counselors now at work?
- How can ETA provide the counselors with updated, local information on labor market and employment and training program trends and developments?

Four representatives of the Department of Labor shared their perspectives with symposium participants on the development and use of labor market information for improved guidance delivery. Summaries of those presentations follow.

National Perspective — *Comments on David Duncan's Address*

The opening address of the symposium by David Duncan, director of the Office of Policy and Planning of the U.S. Department of Labor, provided a national perspective on present and future uses of Labor Market Information (LMI). He gave his audience an appreciation of the scope of the demand for LMI and the corresponding scope of the challenge inherent in the development of customized materials.

Mr. Duncan cited the vast numbers and variety of users of LMI. These users include government personnel of 52 states, 3,206 counties, 1,305 cities, 73 city parts, 112 townships, 502 areas of substantial unemployment, 460 prime sponsors, 911 program agents, 52 employment security agencies, 52 WIN programs, 400 special programs, and untold numbers of subcontractors—all ETA-funded program users. Non-ETA users are comprised of vast numbers of personnel in the fields of commerce, education, defense, environmental protection, justice, and many others. He noted:

> Each year we conduct a comprehensive review of the state of LMI programs by:
>
> 1. monitoring the production of LMI publications and reports and LMI expenditures in accordance with approved plans and guidelines;
> 2. conducting on-site LMI reviews of each state's operations;
> 3. reviewing the quality of state LMI publications and reports; and
> 4. analyzing information provided for an annual LMI survey of users such as CETA planners, State Occupational Information Coordinating Committees and vocational education agencies.

The size of the market for LMI gives some indication of the scope of the effort required to package the information. It must meet the requirements of at least twenty federal laws as well as additional regulations to generate data in particular formats. Data must be published in a form that will be meaningful for a wide variety of clients. Mr. Duncan concludes that effective usability depends upon understanding of the meanings of the data by both the compilers and users of the data.

State Level Perspective — *Comments on Robert J. Hotchkiss' Address*

The next presentation in the symposium introduction was a state level perspective by Robert J. Hotchkiss, chief of the Employment Data and Research Division of the California Department of Labor. Mr. Hotchkiss sees LMI in two categories: economic information and occupational information. He considers the latter to be the more significant category in the context of training programs and vocational guidance.

Based on observation, he believes that LMI is not used nearly enough by the educational community, but he predicts a tremendous increase in its use by federal and state mandate. At the state level, he sees LMI as being most useful to training programs and vocational guidance, now and in the future, in three major areas: (1) program planning, (2) development of curricula and educational methods, and (3) career guidance. For these purposes, LMI must be better—more specific, more accurate, more accessible to users, more timely—and it must be supported by an extensive program of training and technical assistance for users. Finally, it must be incorporated into new systems—occupational supply and demand data, analysis and career information delivery systems, for example.

Mr. Hotchkiss outlined the efforts of his organization to make the needed improvements:

> First, we have underway a project to produce employment data in subareas of counties; we can do it now only at the county level. This is a major problem in California with its large, populous counties. We shall be able to do this for any aggregation of census tracts —school districts, prime sponsor jurisdiction, whatever. It will not be *occupational* employment data; it will be industry data, but it will be an enormously powerful tool for analyzing local labor markets.
>
> Second, we are completing our three-year Occupational Employment Statistics (OES) survey. This will provide the best and most comprehensive information on occupational structures with industries ever available in this state. We are now publishing the results from the first part of the survey and will be done by next year. Whether or not we can repeat this survey—and should be repeated—probably depends on whether or not the Department of Labor (DOL) can fund it. My colleagues in DOL have heard me cry 'Wolf!' before, but the wolf's teeth are growing. I also must say that it is a major failure of the DOL to define, organize, fund, and direct a national occupational information program—that is, an occupational information program in each state. Some organizations and some individuals have made exceptional efforts to do this, and some of the major pieces are there, but we are a long way from a national occupational information program.
>
> Third, over the next two to three years, we shall make a major effort to improve our occupational *data* by analyzing and developing better industry-occupation employment matrices, better projection methods, and better systems of cross-walking data between different occupational codes. This also will involve a careful evaluation of the usefulness of OES and the census.
>
> Fourth, we are making a major commitment to data processing to improve our services. This takes two forms—we are trying to obtain access to computers and programs so that the capacity of computer systems to store and manipulate data, to do mathematics, and to display information graphically will be a tool as readily available to my analysts and clerks as a telephone. Those of you familiar with the data processing business in California state government know that this is an ambitious goal, but we have made some progress. Access to electronic data processing (EDP) will broaden enormously the range of work that my staff can do. This is extremely important to our ability to manage large reporting systems and to carry out complex systems development, for example, for occupation employment projections.
>
> The other major use of EDP is to make our data and information more readily available to our customers. Our first major effort in this area is to place our occupational information —primarily occupational and career guides and Dictionary of Occupational Titles (DOT) descriptions—on an interactive, automated data base. This will permit us to maintain this information [and make it] easily available to many more people.

Finally, the most critical effort is aimed at more dissemination, technical assistance, and training. Our efforts to increase our effectiveness in this area take many forms, but during the coming year we shall work most intensively on developing and launching a systematic program of workshops which will permit us to reach more users with our present staff and to do a better job of explaining and training in LMI. These workshops are a direct response to our recognition that we must make a greater effort to inform education communities of the availability and use of LMI.

Need for Qualitative Information – *Comments on Neal H. Rosenthal's Address*

Roles of labor statistics in improved guidance delivery was the topic addressed by Neal H. Rosenthal, executive director of the Division of Occupational Outlook of the Bureau of Labor Statistics.

Concurring with Mr. Hotchkiss, Mr. Rosenthal pointed out the need to present LMI in qualitative as well as quantitative terms for inclusion in a comprehensive guidance delivery system. Information on job duties and the characteristics of occupations enables individuals to identify fields of work that mesh with their abilities and interests. This is as important as, or more important than, the statistics.

Mr. Rosenthal emphasized the need for data at three levels of geographic detail: national, state, and local. All three levels are needed to enable individuals to choose appropriately from among the multitude of available careers. On the national level, the Bureau of Labor Statistics (BLS) has been developing data on current and projected employment covering the roughly 400 occupations in the industry-occupation matrix. Over the next two years plans are to increase the data base to cover about 1,500 occupations as we change from a census-based to a data-based system on the OES survey. However, only about 300 occupations are covered in the *Occupational Outlook Handbook* and related guidance publications.

State agencies develop current and projected occupational data for states and local areas that are similar in scope to the national data. Most states are involved in the OES survey program and therefore have or soon will have data covering up to 1,500 individual occupations. However, most states have done an adequate job in the delivery of data. The reports that have been prepared are usually statistical in nature. They are presumably aimed at planners and are not suited for use in guidance. BLS has learned over the years that data alone are not sufficient. Proper packaging of information is needed or available data do not get used by career guidance personnel. The data do exist; therefore, the potential exists for improvement in the use of labor market statistics in the delivery of guidance information at state and local levels.

Mr. Rosenthal's message was the need to improve delivery systems at the state and local levels. He stated that, if labor statistics do have a role in improving guidance information, the methods of presenting such information to users must be improved. The data are, or shortly will be, available and should be used effectively.

Role of NOICC – *Comments on Russell B. Flanders' Address*

Russell B. Flanders, executive director of the National Occupational Information Coordinating Committee (NOICC), concluded the introductory session of the symposium with a description of his agency's activities. These activities are based on four major legislative mandates:

1. To improve coordination between, and communication among, occupational data producers and occupational data users
2. To develop and implement "an occupational information system (OIS) to meet the common occupational information needs of vocational education programs and employment and training programs at the national, state, and local levels . . ."
3. To give "special attention to the labor market information needs of youth" and to the delivery of information for career exploration and decision-making and job search purposes
4. To assist state occupational information coordinating committees established by states receiving assistance under the Vocational Education and CETA legislation

With regard to communication and coordination, the basic objective is to foster linkages and create a cooperative atmosphere among the users and producers of occupational and related data. More specifically, NOICC will coordinate, conduct, or participate in meetings of data producers and users; encourage the production of publications and otherwise provide publicity to increase awareness of available data; and, among other things, establish a national communications network to keep State Occupational Information Coordinating Committees (SOICCs) and other participating agencies informed of NOICC/SOICC activities.

The NOICC has two primary objectives in regard to the labor market information needs of youth. They are (1) to fund and otherwise support research and demonstration activities, and (2) to establish and guide SOICC efforts in career information development and delivery.

NOICC's objectives with regard to SOICCs are to fund them adequately, provide them with technical assistance and training, and use their knowledge (and that of the organizations they represent) as a resource to enhance the accomplishment of mandates and national objectives.

The NOICC policy statement lists specific programs that have been adopted to provide occupational demand and supply data in the OIS. The OES program has been adopted *"as the standard principal source of current and projected occupational employment data at the local, state, and national level."* The policy statement concerning supply data includes reference to the state and national apprenticeship data as well as U.S. Employment Service, CETA, unemployment insurance, vocational education, and higher education data sources.

NOICC operates under a board of directors called the Technical Steering Group. Guided by the members of the TSG, NOICC will attempt to avoid duplication, support and strengthen existing data source programs, and bring to the attention of all interested parties problems associated with the development and maintenance of the OIS—an OIS *that has been designed in cooperation with national and state personnel representing both education and labor.* Furthermore, NOICC will take into consideration the data and information needs of users of occupational information.

After outlining the impressive accomplishments of NOICC's first year of activity, Mr. Flanders cautioned symposium participants against overlooking the related activities, accomplishments, and products of other organizations and, thus, against duplication of effort.

Uses and Effects of LMI

The four presentations summarized above provided the introduction to the symposium and the necessary background for the consideration of information for training and vocational guidance in the United States with emphasis on the U.S. system of labor market information. They were followed by three more extensive presentations which address specific aspects of the use of LMI. These, in their entirety, comprise the following chapters.

Chapter I deals with "Career Guidance Uses of Labor Market Information: Limitations and Potentialities," by Henry Borow, followed by a response by Marilyn Jacobson. With regard to the provision of LMI, Chapter II considers the question "How Well Equipped Are Counselors to Assist Students?" by Carl McDaniels, with a reaction by Edwin Whitfield. The final presentation, "Recommendations for the Improved Use of Labor Market Information in Secondary Schools," by Edwin L. Herr with a response by Evelyn Ganzglass, is the topic of Chapter III.

CHAPTER I

CAREER GUIDANCE USES OF LABOR MARKET INFORMATION: LIMITATIONS AND POTENTIALITIES

A Paper by Henry Borow

Abstract

Dr. Borow maintains that career counseling needs to combine broad intervention strategies with conventional occupational information practices to overcome limiting psychosocial factors. These factors include psychological aptitude, interests, economic and cultural disadvantagement, the changing regard for the value of work, and the disparities between the aspirations of youth and the realities of the labor market.

Students are more influenced by the status-conferring power of occupations than by knowledge of the jobs. Information needs to be related to clients' motives and values. Guidance must provide a sense of the interpersonal involvement of an occupation and a greater knowledge of the work place as a social system.

In her response to Dr. Borow's paper, Marilyn Jacobson supports Dr. Borow's view that psychosocial barriers reduce counselor effectiveness. She also emphasizes the ideological congruence among professionals of different career development perspectives.

Henry Borow, Ph.D., is a professor of psychological studies in the Division of Social and Behavioral Sciences at the University of Minnesota.

Marilyn Jacobson, Ph.D., is project director of the Adult Career Advocates Program at Northwestern University.

Introduction

Any assessment of the contributions of labor market information to career guidance must begin by recognizing three underlying assumptions of the pure occupational information approach to the process of vocational choice making: (1) the client in career guidance, usually a student, has difficulty making an appropriate vocational choice principally because he/she possesses an information deficit; that is, his/her knowledge of the world of work is impoverished or distroted; (2) the student is aware of the problem and is motivated to deal with it; (3) given proper information, the student possesses the personal resources to effect a rational and realistic plan for vocational life. It may be inaccurate, perhaps, to represent the logic of the classical occupational information method in such simplistic terms. However, school practitioners of this oldest of vocational guidance approaches do not appear to have seriously challenged the validity of its premises.

Other important career guidance rationales, some of which appear to have had independent origins and others of which emerged more consciously as critical reactions to the occupational information emphasis, begin with somewhat different assumptions regarding the sources and remedies of career planning difficulties. Among these may be noted (1) the prevailing method in vocational education (stressing the efficacy of vocational tryout through guided work experience), (2) the contribution of differential psychology (centering on the enlargement of the student's self-understanding of his/her vocationally relevant traits through psychometrics and test interpretation), and (3) the growing influence of behavioral counseling (emphasizing the building of career exploration tactics and the teaching of career decision-making skills). Few if any of these systems exist today as separate and self-contained forms of guidance technology. Each, including the occupational information dissemination method, has been influenced to some extent by the others, merging its principles with theirs in a hybrid practice. As Tyler (1969) has noted, our understanding of the problems of vocational planning, choice, and adjustment have changed, and we now conceptualize the processes of career guidance on a more sophisticated scale than did the originators of the movement.

Unfortunately, among some who develop labor market information and some who use it in career guidance, there remains a lingering adherence to the occupational information dissemination model and its assumptions as outlined above. While acknowledging that effective guidance must incorporate a significant work life information component, most school counselors and all counseling psychologists reject the proposition that the career planning problems of American youth can be resolved by the simple expedient of producing more labor market information of higher quality and insuring its availability to clients. We have known for many years that a complex array of circumstances attendant upon the psychological transition to adulthood, the changing and uncertain valuing of work in American society, inequitable socioeconomic opportunities, and disparities between the rising aspirations of youth and the realities of manpower utilization weigh in upon the career development histories of students and affect their vocational adjustment. The discussion which follows considers the role of labor market information in career guidance within the broader context of these social and psychological conditions..

Imparting Psychosocial Information about Occupations

Competent counselors recognize that the occupational information they use with students must meet acceptable standards of objectivity, readability, ethnic and sex fairness as well as accuracy, comprehensiveness, and currency of contents. Through the development and promulgation of its *Guidelines for the Preparation and Evaluation of Career Information Media,* the National Vocational Guidance Association has had moderate success in fostering adherence to such standards. Inspection of the quality-rated items under *Current Career Literature,* a regularly published department in the

Association's *Vocational Guidance Quarterly*, suggests that substantial numbers of occupational information monographs and briefs published by government agencies and commercial firms do satisfy the conventional criteria of acceptability. However, such criteria appear to pertain chiefly to the economic, legal, rational, and demographic conditions of work. What conventional labor market information reports fail to capture are the intimate and peculiarly human qualities which are frequently the critical determiners of job adjustment or failure. Admittedly elusive, these job characteristics are bound into the social climate of the work. They relate to those subtleties of interpersonal relations on the job which, while not formally specifiable as work activities or job requirements, may be highly instrumental in nourishing or thwarting the worker's important motives and, hence, his/her job satisfaction. Almost twenty years ago, Samler (1961) and Pritchard (1962) called attention to such psychosocial characteristics of work and urged that they be incorporated into occupational descriptions and that counselors help their clients to deal with them in the process of occupational exploration.

Edward Gross, an occupational sociologist, offers a jocosely fanciful exercise to illustrate the extent to which conventional description may ignore the psychosocial climate which invests a field of work with its essential character. Gross portrays the work of newspaper carrier as follows:

> Key persons in the role set of newspaper carrier include the following:
>
> (1) *The customer.* Customers like to receive their newspaper in a convenient place, unaffected by rain, snow, or wind. They can rarely tolerate a delay in delivery longer than ten minutes off one's usual time. They must be taught to telephone newspaper carrier at home rather than telephone the newspaper with a complaint. Many do not pay promptly but must be revisited several times. Most of them are chronically short of change. All of them desire that the newspaper carrier shall stay off the grass, stay out of the flower gardens, and indeed, would prefer that he[/she] not step on the property at all. Should the newspaper carrier be bitten by the customer's dog, the customer is likely to blame the newspaper carrier for upsetting the dog.
>
> (2) *Non-customers.* Other persons who are not customers nevertheless may give the [newspaper carrier] trouble since they object to his[/her] taking short-cuts across their property. They also have dogs.
>
> (3) *The superior.* This individual tries to maintain the fiction that the newspaper carrier is an independent business[person]. Therefore, he[/she] has periodic meetings with the newspaper carriers in order to "counsel" them on their business activities. As a matter of fact, he[/she] spends most of his[/her] time pressuring the newspaper carrier to increase the number of subscribers. His[/her] pep talks are frequent and must be endured.
>
> (4) *Other newscarriers.* One occasionally encounters persons who carry newspapers for competing companies (or even for the same company) who attempt to take away one's subscribers.
>
> (5) *School teachers.* The newspaper carrier must particularly guard against the possibility that failure to keep up his[/her] schoolwork or infractions of disciplinary rules may lead to his[/her] being kept after school. Should this occur, he[/she] may then be late in picking up his[/her] papers and delivering them and thus suffer the unfavorable attention of both his[/her] superior and his[/her] customers. The resultant role conflict may, in addition, produce feelings of guilt on the part of the newspaper carrier, thus affecting his[/her] degree of job satisfaction.

By contrast to Gross, the fourth edition of the DOT defines newspaper carrier in this manner:

> 292.457 010 Newspaper Carrier (ret. tr.) carrier, newspaper deliverer. Delivers and sells newspapers to subscribers along prescribed route and collects money periodically. Purchases newspapers at wholesale price for resale to subscriber at retail rate. Walks or rides bicycle to deliver newspapers to subscribers. Keeps records of accounts. Contacts prospective subscribers along route to solicit subscriptions. May attend training sessions to learn selling techniques.

If a vocational counselor truly wished to convey to a client a sense of the interpersonal involvements and possible frustrations of a newspaper carrier at work, might he/she not be better advised to use Gross' tongue-in-cheek job vignette in preference to the DOT definition? Overs and Deutsch (1966) have advocated the use of sociological descriptions of occupations by counselors because they offer a penetrating perspective on human dynamics in the work setting. In view of the frequency with which such descriptive reports appear in journals like the *American Sociological Review,* it is puzzling that the literature on career guidance has been marked by a paucity of similar material.

There is another important sense in which standard occupational information may fail to engage the motives and values at play during students' vocational exploration experiences. Research by O'Dowd and Beardslee has shown that college students are heavily influenced in their choices of majors and career fields by their perceptions of the social status and preferred lifestyles associated with occupational titles. Through an ingenious application of the Osgood-Suci semantic differential analysis technique, these investigators demonstrated that students are able to stereotype the personalities of workers (e.g., physician, accountant, engineer) with a high degree of inter-student agreement. Further, students are strongly inclined to select major fields of study consonant with those occupations which they view as represented by attractive personalities and bestowing favored social status. We can infer that many students may be more heavily influenced in their planning decisions by their perceptions of the status-conferring power of occupations than by their specific and detailed knowledge of job duties and requirements. In fact, studies by Loesch and Sampson (1978) and others have revealed a tenuous relationship between students' job information and their occupational preferences. Clearly, the implications of such findings for those who generate occupational information and those who provide counseling services demand examination.

The Occupational Information Recipient as Consumer: A Behavior Analysis

Anyone with substantial practice in the vocational counseling of youth has experienced the exasperation of the communication impasse. Consider the hypothetical instance in which the counselor is attempting to help his/her student client marshal and interpret relevant information bearing on the field of electrical engineering and its suitability as a career choice. Having identified during counseling a number of variables and contingencies strongly suggesting that the student has a low probability of success in the chosen field, the counselor may hear the student say, at the close of the interview, something along the following lines: "It's just like you said. Engineering is a great field for the person who is really sold on it. You can be anything you want to be if you really try hard enough."

A counselor whose ears are assaulted by a capsule interpretation such as this has warrant to question the efficacy of the communication process in career guidance. The experience is not uncommon. Several years ago, the writer had students prepare detailed narrative reports on the contents and outcomes of their interviews with vocational counselors. The student reports were then compared in substance with the separately prepared interview reports of their counselors. Disparities in the paired documents were wide and numerous.

How might we account for the dismal finding that student exposure to occupational information materials and counseling interviews may still leave them poorly informed about their fields of inquiry? As purveyors of labor market data, we have generally operated on the dubious assumption that the student is a predominantly rational and dispassionate information processing instrument, capable of registering and encoding information units in distortion-free form and, subsequently, of retrieving and organizing them in a manner which culminates in a reasoned career plan. Serious attention to the psychological nature of the counselee as a purposive, goal-seeking, learning organism has been lacking. Despite the current vogue for positing similarities between brains and computers, there is need to recognize that, when occupational information as a basis for personal planning and decision making is fed into the viable, sensate machine that is the human organism, information is screened through an already existing complex of psychological sets, attitudes, preconceptions, and defenses.

The nature of the process by which humans use such information for human ends requires analysis. As a beginning, a study of the principles of motivation, perception, cognition, and learning may contribute useful insights. Other fields of communication, notably the mass media and advertising, have investigated psychological variables in the transmittal and receipt of information. It would seem prudent for those who develop and evaluate labor market information to follow their exemplary leads. From an examination of the literature in social and political psychology and the psychology of consumer behavior and advertising, for example, several principles of behavior emerge which appear directly applicable to the study of occupational information techniques.

Cognitive Dissonance

When an individual is presented with information and evidence contrary to deeply held beliefs and attitudes, he/she experiences psychological discomfort and is motivated, often unconsciously, to somehow reduce the inconsistency between facts and convictions. In the aforementioned example of the student considering electrical engineering as a career choice, the dissonance is diminished by ignoring or distorting the information received. In filtering out the information which clashes with his/her aspirations, the student employs a defensive tactic that allows preservation of a cherished self-image. With effective counseling, the student might have reassessed his/her own plans and modified the previous favorable attitude about engineering. In either case, the student acts in a manner which brings his/her beliefs, feelings, and behavior into closer conformity with one another.

Selective Perception

Cognitive theory holds that we do not internalize stimuli passively but, instead, actively process, interpret, and categorize information by means of mediational clusters which have been mentally stored through past experience. Thus, the receipt of new information is inescapably influenced by the individual's vast network of already existing information, attitudes, and motives. A student's previously formed interests, for example, will significantly color the interpretation he/she places upon newly received labor market information and will produce both selective attention to the information presented and selective recall.

Comprehension

The complexities and subtleties of symbolic (verbal) material often have the effect of conveying to the recipient a point of view or attitude contrary to that intended. To illustrate, a consumer leaflet or educational television program designed to help wage earners prepare proper income tax reports

may, in emphasizing common technical pitfalls, inadvertently raise anxiety levels and discourage independent tax problem-solving efforts by citizens. Similarly, a lengthy and austere enumeration of the entrance requirements and competitive character of an occupational field may have the unintentional effect of dissuading an inquiring student who lacks self-confidence, but who is otherwise capable, from further exploration of the field.

Credibility

The receptivity of a consumer of information—that is, the user's readiness to accept and act on the information furnished—rests on many conditions. Among these is the degree of authority or competence the user attaches to the information source. In one study, matched groups of students were given an identical report purporting to give career advice to a hypothetical student. Group 1 was informed that the report had been prepared by a close friend of the student; Group 2 was told that a teacher had prepared the report; and Group 3, that a counselor had prepared it. Although all students were given the same report to evaluate, students in Group 3 expressed a significantly higher degree of agreement with the interpretation and recommendations contained in the report. It appears likely that such variables as author's credentials and the composition and layout of labor market information print materials may influence the credence students give to its contents, but little empirical work has yet appeared on this subject.

Divorcement of Youth from the Work Environment

The potential uses of labor market information in career guidance with students must be considered within the context of the relative detachment of a significant segment of today's youth cohort from the realities of the work world. As America entered the twentieth century, the social forces of advancing urbanization and industrialization began to magnify the remoteness of work. The immediacy and intimacy of a small, cohesive community at work—farmers, shopkeepers, and artisans—which earlier generations of youth had known, gradually faded. Today, increasing numbers of jobs are either more intricate and complex than hitherto or they have become fragments of larger work operations. Moreover, large-scale organizations having an inscrutability and impersonality not found in the small, familiar setting of work may be known by youth only as corporate names. Evidence of work estrangement takes many forms.

1. In the early years of the century, it was customary for young people, especially the large farm youth population, to leave school early and enter the labor force. The U.S. Census Bureau, in compiling occupational census data, used age fourteen as the beginning labor force age. The average age at which the typical American takes his/her first full-time employment today is estimated at between nineteen and twenty. With growing numbers of mature female homemakers now making their first entry into the full-time labor force in their twenties, thirties, and forties, the figure will doubtless rise.
2. Parents and other adults are much less visible and effective as occupational role models for children and adolescents who, in earlier times, used such role models as a chief means of learning vicariously what work means.
3. Today's adolescent youth is less commonly considered an economic asset to the family or treated as such. Extended-age compulsory school laws and the self-maintaining modern home are among the factors which restrict opportunity for middle-class and upper-class adolescents to make productive contributions to the economy and to family management. They wonder where they fit in; they and their values are often alien to and out of phase with a surrounding world of working adults.

4. While an expanding economy has provided part time jobs for large numbers of secondary school and community college youth, the great majority appear to have no deep ego involvement in this transient work. They remain psychologically aloof from it, fail to profit from it as exploratory experience that facilitates career development, and with minor exceptions, do not enter occupations related to it when they take full-time employment later on. Of course, this charge does not generally hold for those students enrolled in cooperative vocational education programs.

Evidence of the Limited Career Maturity of Contemporary Youth

The lessened significance of work in the socialization experience of young Americans is reflected in their career development histories, patterns of development which strongly indicate the need for both greater knowledge of work and improved career guidance services. A number of findings attest to a relatively slow rate of vocational maturation in the youth culture.

1. Numerous studies conclude that the occupational information which students have is sharply limited and of doubtful accuracy.
2. Students often possess stereotyped conceptions of their preferred occupations. The power of such stereotypes to shape plans and choices, not necessarily in an appropriate way, has been noted earlier in this paper.
3. Students frequently fail to understand the steps they must take to qualify for their preferred or chosen occupational fields. Their educational aspirations often fail to match their occupational aspirations.
4. The educational-vocational planning activities of high school students are often characterized by short-term considerations. They may be able to state the next step in the plan but fail to understand the long-range planning process.
5. Vocational indecision is widespread among high school and community college students. In many cases, the indecision is matched by a lack of planfulness. Such students either lack commitment to the idea that they should be developing a plan for educational-vocational life or do not know how to begin the development of such a plan. Many of them seem fatalistic about what the future portends. They appear not to have learned that it is possible to shape their own career histories to some degree by establishing and implementing rational plans based on sound information and a discriminating use of resources.
6. Students frequently lack a sophisticated understanding of the work ethos and of the rules and expectations, both formal and informal, which govern the work place, such as where and how to seek employment, how to adapt to the first full-time job, how to relate to coworkers and superiors, and how the reward system works. One obvious implication of this knowledge deficit is that students need not only to learn about occupations but also about the work place as a social system.

Maladaptive Response Tendencies in Career-Related Behavior

Discontinuities in the occupational socialization of the young, like those just listed, give rise to a state of diffused vocational identity—that is, the absence of a clear and comfortable image of oneself as worker-to-be. Furthermore, the discontinuities are manifested in several common behavior dispositions, largely irrational, which operate as deterrents to the emergence of an orderly and satis-

fying career pattern. To be cognizant of these unproductive response tendencies is to begin to comprehend the limitations upon vocational counseling and occupational information dissemination activities as means of facilitating the career development process. In brief, such self-defeating behavior dispositions as those noted below seriously reduce the student's readiness to learn from exposure to guidance and labor market information.

Subjective Occupational Foreclosure

Many counselors have been frustrated by encounters with students who respond negatively to virtually any cluster of occupations that may be proposed as a starting point for career exploration. It is customary to write off such students as lazy, uncooperative, or indifferent to work. A better explanation of this phenomenon in most cases is that society's pronounced tendency to distribute occupations along a values hierarchy leads the student to acquire denegrating images of many types of work. There is at least, indirect evidence of this incidental learning process, one by which youths, as they move through middle childhood and early adolescence, appear prematurely and unconsciously to reject increasing numbers of jobs as unworthy of consideration without, at the same time, rejecting the idea of work. Such preconceptions unduly narrow the range of vocational options which may be fruitfully explored in counseling and, by the same token, leave the counselee unreceptive to large blocks of potentially useful labor market information.

Avoidance Motivation

Doubts about their vocational potentialities, uncertainties about the planning process, and vague anxieties about the world of work lead many students to put off seeking information about job fields. They often use education as a refuge. While it has been customary to place a positive value on the decision to go on to college, it is likely that more than a few high school graduates do so because they feel both cognitively and emotionally incapable of making vocational decisions and wish to postpone the need to do so. Thus, staying in school sometimes becomes an end in itself.

Destiny Control

A pervasive feeling that the direction of one's life is mainly externally determined and may be beyond personal control appears to mark the outlook of many youths. Those who seem resigned to the prospect that they have few options available to manage their own destinies are said to possess an external locus of control. This outlook of fatalism and learned helplessness is especially endemic among young people whose childhood encounter with stultifying economic and cultural disadvantage includes such conditions as (a) highly restricted life space, i.e., limited geographic and social boundaries for experiencing the world (e.g., kindergarteners to fourth graders among the culturally disadvantaged rarely get more than a few blocks from their homes); (b) inadequate human work models among the parents and in the neighborhood, and often, the permanent or long-term absence of one parent from the home; (c) absence of creative toys and reading materials in the home; (d) a devaluing of the child's intellectual promise and a lack of reinforcement of his/her academic achievement; (e) a frequently held and abiding belief, assimilated from and sustained by the reference group, that the prevailing social system is an efficient and watchful trap permitting few avenues of status improvement by fair means.

The adolescent who is a product of such a restrictive psychosocial climate tends to have a poorly developed sense of agency whereby one simply does not believe in the efficacy of rational planning for one's future. A youth so described is not likely to profit from conventional career counseling and occupational information practices unless these are fused with a broader behavior intervention strategy designed to strengthen the self-concept, teach improved environmental coping skills, and build a larger sense of destiny control.

Societal Barriers to Career Adjustment

Rooted in the social order itself are certain conditions which militate against the orderly career development of school youth and a smooth transition to the labor force. Paradoxically, these circumstances legitimize the case for strengthening counseling and labor market information dissemination services. Yet, by their very nature, they create obstacles to career guidance programs and often negate their salutary effects. Two such restrictive conditions of the social structure can be cited.

A clear and consistent set of national manpower policy objectives governing the career guidance and training of youth is lacking. In authoritarian societies and in economically underdeveloped countries facing a need to accelerate internal economic growth rates, such career guidance programs as may exist are expressly directed at identifying and training the talented to satisfy the national interests alone. In an industrial democracy, such as the United States, competition exists between the legislative and educational programs designed to meet the nation's manpower needs and those intended to optimize the individual development (and, in effect, the range of free choices) of the young. We do not have here, nor do we find philosophically palatable, a federally directed system that establishes a uniform structure for the selection, training, and job placement of young men and women in the exclusive interest of national economic growth. Consequently, despite such piecemeal, mostly short-range programs as the Job Corps, Youth Opportunity Centers, Youth Employment Service, and CETA, there is evidence of much nonproductive career floundering including high unemployment rates and aimless job changes (horizontal occupational mobility). In the absence of a comprehensive youth policy which might provide linkages between funded programs at several levels and in various settings, the young become particularly vulnerable to such floundering. This condition particularly afflicts early school leavers and recent graduates without vocational skills, ages sixteen to twenty-one, for whom the hiatus between school and the first successful, full-time work experience may have durable adverse consequences.

Secondly, the vocational aspirations of America's youth are no longer matched by labor market opportunities. Emphasis on the "American dream," the irresistible lure of improved socioeconomic status and the good life through education and esteemed jobs, is mirrored in the large percentages of students who are now entering various types of institutions of higher learning following secondary school completion. The explanation lies in the mechanism of avoidance motivation (staying in school by default) which this paper has previously discussed and the strong inclination of the vast majority of young Americans to think in terms of prestige occupations only. Numerous surveys of high school students show 65 percent to over 90 percent naming professional, highly technical, and managerial occupations as career goals. By the most generous estimates, however, not more than 20 percent of jobs in the American labor force fall in these status categories.

A dilemma has been created both for students and their counselors by the steadily rising educational level of American workers. On the one hand, education is touted as the best single means to expand job opportunities. On the other hand, education raises the expectations of the prospective worker and leaves him/her with reduced tolerance for dull, routine, repetitive work which promises as its only visible goal the external reward of the paycheck. Consider the following statement by a

young worker at the General Motors Vega plant in Lordstown, Ohio. Lordstown will be remembered as the locale of a bitter, unauthorized strike in 1972, instigated chiefly by the younger workers who felt the union simply did not understand the importance of pressing demands for the humanization of the work.

> I think we're different. Our parents were motivated to a lesser degree than we were. Maybe they didn't have the education we had. Maybe they were immigrant families that wanted to prove themselves, that their nationality was real good. They're hard workers. But we, the younger workers, have been through high school and have had advanced subjects compared with our parents. Most of us have had monetary gains, but we know that isn't all there is. We're not narrow-minded people.

It may be argued that the immigration of new ethnic groups, for example, the refugees from Southeast Asia, will provide a willing labor supply for low-level jobs that upwardly aspiring second- and third-generation Americans reject. The reasoning here is that the newcomers, in the welcome climate of freedom of their adopted land and the opportunity which their factory jobs give to attain a standard of living far beyond their experience in their strife-torn countries of origin, will value the work for its own sake, however routine or low in status. Our national experience, however, suggests that this value system may not be shared by their children and grandchildren. The provocative *Work in America* report of the Special Task Force (1973) observed that increasing the opportunities for employment among young blacks has not been accompanied by high levels of worker satisfaction. Some of the strongest criticism of the meaninglessness and dehumanization of factory work appears to be coming from young blacks and other minority youth.

Such worker reactions as these do not necessarily surprise employers. Corporate management tends to see high production as the principal aim of work. It assumes that the workers may find their jobs unpleasant and do them reluctantly. Therefore, management arranges the plant so that work can be closely controlled, checked, and supervised at every point. The traditional union view is also likely to be one that assumes the work is inherently unpleasant and that the benefits can only be external to the work itself—high pay and greater fringe benefits in the form of shorter work weeks and more vacation time. However, the Lordstown revolt and others like it strongly suggest that extrinsic rewards may not provide an adequate solution.

Counselors, on the other hand, often appear to deal with the problem either by naively and sometimes hypocritically idealizing work—that is, by representing work in general as intrinsically rewarding and potentially self-actualizing, or by supporting students indiscriminately in their pursuit of high-level career aspirations. In either case, they may be preparing the ground for disillusionment as charged by the strongly dissenting positions of Warnath (1975) and Baumgardner (1977).

Recommendations: A Selected List

Some of the obstacles to effective career guidance identified in this paper clearly originate in conditions outside the domain of occupational information. While researchers and practitioners should be aware of these limitations, they cannot realistically expect to strengthen vocational counseling services and to eliminate indecision and inappropriate career planning by the single expedient of improving the development and use of labor market information. Nonetheless, many of the problems which this paper has raised do invite changes in strategy and emphasis relative to occupational information resources. The recommendations will deal with these.

Perhaps the chief obstacle to the effective use of labor market information has been a weakness in articulation between the efforts of federal agencies which develop information systems and professionals who devise and carry out programs of career planning, training, and placement. Historically, the industry-based classification systems, such as the first two editions of the *Dictionary of Occupational Titles* (1939 and 1949), the *Decennial Census Data*, and the *Standard Industrial Classification* have been of only limited use in meeting the objectives of those involved in the delivery of guidance services. It became necessary for occupational psychologists to create new classification systems based on functional or trait requirements. Unfortunately, these are not as comprehensive or authoritative as those systems produced by federal agencies.

The problem now appears to be moving toward a moderate solution. In recent years the research approaches of these two sources have been converging. For instance, the third edition of the *Dictionary of Occupational Titles* incorporated an extensive worker-trait components feature; the current fourth edition introduces a coding-and-classification format designed to reveal broader functional relationships between occupations, and recent editions of the Bureau of Labor Statistics' *Occupational Outlook Handbook* have placed substantially greater stress on the guidance, counseling, and training implications of descriptive job data. Corresponding improvement can be seen in psychologically based classification systems such as the American College Testing Program's *Career Planning Program* and the *World of Work Maps for Job Families* and also in Holland's *Self-Directed Search*. Each of these devices establishes a method for coordinating its particular functional classification scheme with U.S. Department of Labor job titles and descriptions. Recent efforts by the NOICC and SOICC operations continue the trend toward making career information delivery systems more effective in youth guidance. They help strengthen communication links between job training activities in different settings which, in the past, have often seemed wastefully duplicative or at cross purposes.

Additional proposals for the improvement in the quality and uses of labor market information are presented below. Most of these suggestions are not new and are offered here as reminders of goals which remain to be attained. As a starting point, solid articulation between the efforts of developers and users of information systems is essential to any labor market information network which is intended to be used for career guidance. The following recommendations rest on this proposition:

1. Images of work need to be presented at all age and grade levels, beginning with the cultivation of occupational awareness in young children and extending through emphasis upon elements of the work ethos, the work site as a subculture, adjustment to a job, and mid-career reassessment. Since the early 1970s, comprehensive school-based models of career education have provided a significant framework for matching levels and types of occupational information to the developmental needs of youth.
2. Occupational information, like test information, should be presented in a manner calculated to broaden the range of options and to stimulate exploration—not to narrow choice and hasten decisions.
3. Because students are often uncertain and anxious about occupational data, labor market information should be presented in a climate in which risk taking is minimized. The world of work ought to be characterized, whenever possible, as an area where at least moderate degrees of openness and freedom to alter career lines are permitted. Further, connections between educational options and the occupational network need to be made more visible and understandable to students.
4. Increased attention should be given to the psychosocial characteristics of work, particularly the interpersonal factors and salient values identified with various types of work. Pertinent here is a series of job values profiles called Occupational Reinforcer Patterns compiled by Lloyd Lofquist, Rene Dawis, and their associates on the worker adjustment project at the University of Minnesota.

5. A concerted effort is needed to link the print media, computer-assisted systems, and other sources to experiential career guidance approaches like cooperative vocational education and apprenticeships. Investigative consortiums need to merge these diverse sources of information into a single information delivery system.

6. As computer-assisted career guidance becomes more accessible and counselors grow more receptive to its potential contributions, the use of the more sophisticated computer systems should be encouraged. Models which merely permit a rapid call-up of stored DOT and *Occupational Outlook Handbook* data offer no significant advance in counseling technology over traditional methods. On the other hand, systems such as the one developed in the state of Oregon which allow students to explore and plan on their own allow a more highly integrated and effective use of labor market information. Computer models with developmental career counseling capabilities ranging beyond simple information exchange to the teaching of life career stages and career coping skills appear to be the most promising. An example of such an operational system is Project DISCOVER, developed by JoAnn Harris-Bowlsbey and her associates.

7. More advanced labor market information delivery systems in career guidance should be given accelerated research and development funding support, preferably from the U.S. Department of Labor. High priorities should be assigned both to studying the psychological problems of occupational information dissemination described in this paper and to monitoring the effectiveness of newly developed delivery systems. Career counselors should no longer expect their worth to be taken for granted. Guidance systems, including their occupational information components, must be tested objectively against improvements in the career maturity and work adjustment of the students using these systems.

References

Baumgardner, Steve R. "Vocational Planning: The Great Swindle." *Personnel and Guidance Journal* 55 (1977): 17-22.

Loesch, Larry C., and Sampson, James P. "Job Knowledge and Vocational Preferences." *Vocational Guidance Quarterly* 27 (1978): 55-60.

Overs, R.P., and Deutsch, E.C. "Sociological Studies of Occupations. *Personnel and Guidance Journal* 44 (1966): 711-714.

Pritchard, David H. "The Occupational Exploration Process: Some Operational Implications." *Personnel and Guidance Journal* 40 (1962): 674-680.

Samler, Joseph. "Psycho-Social Aspects of Work: A Critique of Occupational Information." *Personnel and Guidance Journal* 39 (1961): 458-465.

U.S. Government, Department of Health, Education and Welfare. *Work in America.* Report of Special Task Force. Cambridge, MA: MIT Press, 1973.

Tyler, Leona E. *The Work of the Counselor.* 3rd ed. New York: Appleton-Century-Crofts, 1969.

Warnath, Charles F. "Vocational Theories: Directions to Nowhere." *Personnel and Guidance Journal* 53 (1975): 422-428.

CAREER GUIDANCE USES OF LABOR MARKET INFORMATION: LIMITATIONS AND POTENTIALITIES

A Reaction by
Marilyn D. Jacobson

Because the career decision-making process itself has become more complex due to the increased variety and range of jobs, our understanding of the process requires continuous development. Perhaps the best illustration of this metamorphosis is the evolution of thinking represented by Eli Ginzberg whose early work (1951) described occupational choice as "completed" by the early or middle twenties, posited that many educational and preparatory decisions are irreversible, and concluded that choices are always the result of "compromise" between personal preferences and the constraints of the work world. In a later book (1971), Ginzberg revises his earlier position and insists that occupational choice is actually "open-ended" throughout a person's life (choice being influenced by work experiences, changes in values, physiological changes, marital relationships, degrees of freedom as children grow up, financial status shifts and loss or change in job) and that training needs to be continuous and that men and women seek to find the best occupational fit between their changing desires and their changing circumstances.

Sensitivity to what is now viewed as a dynamic process has led Levinson (1977), Gould (1978), Vaillant (1977) and popularizers like Sheehy (1977) to isolate the passages through which individuals mature, characterizing career and occupational choice as a major component of life cycle development. Edgar Schein (1978) succinctly delineates the adjustment undergone by a person in transit to adulthood as related to work and career. Listed under his category "General Issues to be Confronted" are the following: dealing with the reality shock of what work and membership (in an organization or occupation) are really like; adjusting to the daily routines of work; balancing own needs for independence with organizational restrictions and requirements for a period of subordination and dependence (pp. 41-42).

The more "sophisticated scale" of comprehending the process of career guidance alluded to by Professor Borow is further compounded by a pervasive new attitude toward work. Daniel Yankelovich has documented a significant shift in how work is viewed, primarily by the young, which he describes as a revolt against bad jobs. His "entitlement theory" postulates that increasingly workers are demanding that work be "satisfying" and that each person not only has a right to a job but to a good job (Yankelovich 1974). Other expectations that have been fostered by this right to meaningful work notion are that work be less depersonalized, that there be equity and justice in the work place, that supervisors not be dictatorial or autocratic, and that wages be sufficient to live comfortably. Ironically, in a time of diminishing job slots, worker expectations concerning agreeable work and work conditions are escalating.

Worker interest in the quality of working life is barely accommodated in currently available labor market information which tends to be quantitative and only sketchily descriptive of work style characteristics, or what Professor Borow calls the "intimate and peculiarly human qualities"

of the job. Until an individual has information regarding the quality of work life associated with a particular job, he or she is unable to decide what concessions or trade offs to make. For instance, a welder at a shipyard must balance high wages against dampness, extremes of heat and cold, noise, long distance to the work site and to restrooms. Salesmen must be able to persevere, bolster their own confidence and budget uncertain incomes. Some jobs demand a high tolerance for ambiguity; others provide structure and closure.

The more thorough the knowledge of the prospective work environment, the greater is the person's ability to maximize his "net advantage". The concept of net advantage formualted by Adam Smith in 1776 and updated by Professor Frank H. Cassell helps describe the complicated arena in which employer and employee seek to optimize their advantages. If the individual is to work out for himself considerations of "net advantage" he must have information about wages, hours and working conditions, opportunities for promotion, what wages will buy in particular locations, area growth and/or decline, and real costs and benefits of continuing education and training (Cassell 1978). Granted, much of this data is accessible, if not packaged for this sort of interpretation and use. However, beyond such other petinent data as entry level requirements, time to prepare, benefits and physical work conditions that can be readily gleaned, there are still other elements germain to the decision-making process that cannot easily be accessible. Aspects of working conditions such as pace, challenge, variety of tasks and degree of autonomy, compatibility of associates, opportunity factors such as organization growth and direction, and provisions for personal growth and development are not readily evident in current labor market analyses. Furthermore, information about internal labor markets is rarely even acknowledged as valuable even though awareness of career ladders (direct progression toward a career goal) and career lattices (indirect or alternative paths to a career goal) depends on an understanding of how an organization is structured, the lines of authority, and the interrelationships of departments or divisions. The ladder/lattice metaphor (Kerchner 1975) is useful in describing career mobility in both external and internal labor markets. Schein's cone-shaped three-dimensional model of an organization depicts internal movement and thereby reveals the need to consider penetration to the core of an organization, i.e., its power center, as well as lateral and upward mobility when one contemplates and prepares for career advancement (Schein, p. 39).

Often a matter of concern, particularly for the disadvantaged worker, is the support system on the job ready to assist him. The person new to a job frequently needs someone to show him the ropes beyond formal training: someone to whom he can turn to discuss job problems and personal problems that affect his job; someone to intercede on his behalf in times of trouble; someone to give him moral support as well as concrete assistance; someone who understands his language and life style; and someone who will acknowledge and give importance to his performance. Belief that such a support system awaits him/her buttresses a weak self-esteem and paves the way for favorable job site adjustment.

In addition to the restrictions imposed on career decision making due to limitations of information are what Henry Borow calls "barriers or deterrents to career maturity." The disparity between occupational aspirations and projections regarding the composition of the labor force illustrates the scope of career naivete which prevails: The National Center for Education Statistics matched the job aspirations at age 30 of the high school class of 1972 with labor force projection for 1985. The gap between aspiration and "reality" for those who would be professionals and technical workers indicates a disappointment rate of two-thirds, implying that only one out of three will be able to achieve their goals. Clerical, service worker, sales, operative, and craftsman jobs were shown to be inadequately anticipated. While the hypothetical nature of these figures must be admitted, there is evidence of widespread misreading of future occupational opportunities. If unchanged, this misapprehension will likely result in serious worker dislocations, frustrations, and manpower shortages and bottlenecks. This aspirational barrier to career maturity is exacerbated by the intermittent quality of early work experience typical

of contemporary youth. Failure to test out the chosen career area, both in personal terms and in relation to expected opportunities, results in poorly formulated job goals. The degree to which an individual plans his work experiences, even episodic work experiences, to capitalize on learning opportunities seems to correlate positively to the degree to which he or she can be proactive in an overall career sense. The belief that one can shape his/her own future appears to be the most distinguishing facet of career maturity. Consequently, it is incumbent upon counselors, teachers, parents and all others who function as labor market intermediaries (and there are many over the life cycle who play this role) to assist the career decision maker to be planful and future-directed in the choices of early work, education, and training. Since the myth that one is called to an occupation is now as defunct as the myth that the choice of mate is preordained, counselor assurances regarding the multiple possibilities for which an individual might possess interest and aptitude promotes exploration and helps to establish the important internal locus of control. The career-mature person appears to be someone who exhibits purposeful behavior, who strives for desired goals, but is resourceful enough to accept alternatives when dreams fail to materialize or when unexpected opportunities arise.

Perhaps the most potent societal barrier is the accelerating rate of change. While a young person is in the midst of career selection, the chosen occupation is changing. The technology of the field might be altering the opportunities available or other factors may be impinging on the quality of work life previously associated with that occupation. Institutions and organizations are constantly changing in response to new technologies, shifting demographics, political events, and value readjustments: Since nothing is static, choice is always confounded by new events.

In light of the rapid pace of change, what can be done to facilitate occupation selection? Professor Borow lists seven recommendations—I would offer an eighth which is directed to the education sphere where clarification regarding mission and purpose vis a vis career/work preparation is in order. Educators at the secondary and postsecondary levels seem to be seriously confused by their roles in regard to a liberal versus vocational education. Once schools achieve a balance between the not incompatible roles of providing education for life and practical training for work, attention to and use of labor market information will become integrated into the curriculum where it belongs. As Ernest L. Boyer insists, "We all give meaning to our lives in large part through productive work. . . . Schools and colleges must be honest enough to affirm that the realities of earning a living always have been part of the liberal arts tradition. . . . The relationships between equality education and the world of work will not be solved just by tacking some vocational courses onto the traditional curriculum. Rather, it is time for education to confront the subject of "vocation" as a profoundly serious study, and to make the study of work itself a part of the curriculum." (Chicago *Daily News,* November 6, 1977).

Two predications for the future will serve to demonstrate this contention. It is anticipated that workers will experience at least two or three basic career changes. This presages the need to prepare for job mobility, and recurrent education and training, and would logically involve a curriculum that gives priority to the development of critical faculties which would enable rational choice(s) and the development of a capacity and desire to continue learning.

The second predication involves the anticipated size and nature of the work force. Life expectancy seems for the moment to have stabilized at 70+, and work life has been extended. More people are entering the labor force, while fewer jobs are actually available. Obviously, competition or "crowding," will increase, most intensively in the 25-44 age bracket and, toward the end of the century, in higher age groups. It is time for curriculum to reflect some alternatives to traditional career modes. For instance, there is evidence of increasing willingness to consider compromising lifelong income potential in order to achieve greater lifetime utility. Juanita Kreps and Robert Clark in *Sex, Age and Work* consider the policy implications of reallocating time between work and nonwork pursuits, distributing

work over the age groups and between the sexes. They conclude that new worker attitudes and economic conditions would be best served by policies which redistribute work and nonwork over the life span. Surely it is within the jurisdiction of schools, colleges, and universities to introduce these options for study and deliberation.

Coincidental with the clarification of educational mission there needs to be increased attention in the private sector to human resource planning (Schein 1978). The individual has been encouraged to plan but commitment by organizations in this essential area has been lagging. Interest in the career development of employees can take many forms. Improved manpower forecasting is one; programs such as McDonald's PACE is another.

Clearly labor market information and counselor preparation are part of simultaneous equation and must be understood as elements in a dynamic system. The pivot on which the system tends to operate is the manner in which counselors/intermediaries help individuals to *interpret* information so that choice is informed not only by knowledge of occupational characteristics and labor market conditions but the work ethos of an occupation or career. A measure of an intermediary's effectiveness is the extent to which social, psychological, and economic realities which impact on the decision-making process are brought to a person's level of awareness. Ideally, the process of accessing, interpreting, and utilizing information becomes a skill that an individual can apply as needed over the life span.

References

Cassell, Frank, and Kerchner, Charles. "Planning for Vocational Education and Regional Development." Working Paper for the Illinois Department of Vocational and Technical Education, 1975.

Cassell, Frank, and Rodgers, Ronald C. "The Public Employment Service as a Labor Market Intermediary." *Labor Market Intermediaries.* Special Report of the National Commission for Manpower Policy No. 22, March, 1978.

Ginzberg, Eli, et al. *Occupational Choice: An Approach to a General Theory.* New York: Columbia University Press, 1951.

Ginzberg, Eli. *Career Guidance: Who Needs It, Who Provides It, Who Can Improve It.* New York: McGraw-Hill, 1971.

Gould, Roger L. *Transformations! Growth and Change in Adult Life.* New York: Simon and Schuster, 1978.

Kreps, Juanita, and Clark, R. *Sex, Age and Work.* Baltimore: Johns Hopkins Press, 1975.

Levinson, Daniel, et al. *The Seasons of a Man's Life.* New York: Knopf, 1977.

Schein, Edgar, *Career Dynamics.* Reading, MA: Addison-Wesley Publishing Company, 1978.

Sheehy, Gail. *Passages,* New York: Bantam, 1977.

Vaillant, George E., *Adaptation to Life.* New York: Little, Brown and Company, 1977.

Yankelovich, Daniel. *The New Morality: A Profile of American Youth in the 70s.* New York: McGraw-Hill, 1974.

CHAPTER II

LABOR MARKET INFORMATION: HOW WELL EQUIPPED ARE COUNSELORS TO ASSIST STUDENTS?

A Paper by Carl McDaniels

Abstract

In this chapter, Carl McDaniels presents a profile of the competent counselor providing occupational information either as a direct part of the guidance function or as a broker assisted by an occupational information specialist. He emphasizes the importance of preservice and inservice training to acquaint counselors with the various kinds of information systems and to enable them to identify and select those which correlate to their counseling objectives.

In his comments on Dr. McDaniels' paper, Edwin A. Whitfield concurs with Dr. McDaniels and further emphasizes the need for counselor education programs as well as for an improved image of career guidance among counselors themselves, other educational staff, and the general public.

Carl McDaniels, Ph.D., is Program Area Leader of Counselor Education at Virginia Polytechnic Institute and State University. He was formerly associated with the Mississippi State Department of Education. Edwin Whitfield, Ph.D., is Director of Career Education for the San Diego County Department of Education.

Introduction

The very title "Labor Market Information: How Well Equipped Are Counselors to Assist Students?" implies that perhaps the development of data and the methods of disseminating data have outstripped the ability of counselors to assist students in the use of data. The answer to the question would seem to include many components: (1) a discussion of the opportunities and problems in using labor market information with students; (2) the characteristics of the counselor in relation to the labor market information; (3) profiles of model counselor education programs; and (4) recommendations for training and retraining of counselors. But the answer to the question demands more. The answer must be given in the context of the question—in the context of an information society, within the capabilities and realities of information systems, and within the context of career development theory/practice. What are the implications for the counselor's role? And what are the implications in the shift of control from traditional (mainly print) resources to accessible data and the process of transforming this data into information? All these become paramount in determining appropriate training and retraining for counselors.

Several issues have influenced counselor education and competencies in relation to labor market information; but in my judgment, counselor education programs have not addressed themselves to either the training or the retraining of counselors to utilize occupational information

effectively. For years there has been a lack of agreement on the role of counselors, especially on the proper emphasis of counselor competencies and skills in personal, academic, and vocational counseling.

The demand for counselors in the fifties and the responsive National Defense Educational Act of 1958 forced counselor education programs into the conventional wisdom of the day--work with college bound students. Competencies and skills in dealing with occupational information was not a primary goal for counselors or counselor education at that time. The labor market was good, jobs were plentiful, and career education was a thing of the future. Legislation placing emphasis on vocational guidance--including job placement, follow up, dissemination of occupational information or its effective utilization--did not yet exist. The needs of specialized populations had not been emphasized. The technological means of gathering, organizing, and disseminating information were not widely available.

Things began to change with passage of the Vocational Educational Act in 1963. There has been a noticeable shift over the last fifteen years. The time now seems right for emphasis on the effective use of occupational information. Theory, practice, legislation, and public acceptance of career education demand the development and use of occupational information (NVGA-AVA Commission on Career Guidance and Vocational Education, 1973; Educational Amendments of 1976; PL 94-482 Career Education Incentives Act of 1978).

Problems and Difficulties

Milieu for Counseling

The counselor is operating in an environment more conducive to the effective use of occupational information while increasing demands are being placed on the counselor's time and expertise. The skills and competencies needed for personal and academic counseling and the necessary managerial skills have increased greatly in the past twenty years.

In an already crowded schedule, the counselor is asked to become involved in the educational movements of "back to basics," competency testing, and greater emphasis on aiding students to achieve academically. The magnitude of the problem can be illustrated by the work load of a typical counselor in a high school. This person is assigned a counseling load of over 300 students who are taking six different courses every nine weeks. There are grades to review at the end of each nine weeks, and promotion to the next level depends on passing the required number of units each term or year. The rescheduling of students who have failed or students who want to change schedules during the year is staggering in terms of the requirements of the counselor's time. Now place this counselor work load in the context of personal counseling involving discipline, substance abuse, family problems, and the developmental tasks facing students.

Additional pressures on counselors resulting from PL 94-142 require counseling skills for working with the handicapped, women, minorities, and other special populations. The legal responsibilities of the school in working with these groups has resulted in administrative support for counseling programs designed to meet special needs as well as consulting responsibilities for integrating these groups into the total school setting.

While the demands on the counselor's time have increased, the time allowed for counseling in the regularly scheduled activities has been diminished. In many schools, no longer are there periods of time once called homeroom or study hall. If a student is in school, the student is normally in a

regularly scheduled class. In order to see a counselor, the student must obtain permission for an excuse from class; or, if the counselor is working with a group, the counselor is using time allocated to the class. The lack of regularly scheduled time for counseling should not be interpreted as a lack of importance of counseling but rather that counseling is sometimes relegated an auxiliary position to conform with the school schedule.

There are some bright notes, however. The team concept of teachers and counselors working together has been accepted widely. Administrators have turned to counselors for assistance more and more as schools have been assigned responsibility for solving multiple and complex problems dealing with students. Counselors have been working increasingly with parents and community groups. It is important to note that the counselor's status is generally high and is viewed by various publics in a favorable way.

Problems and Opportunities Concerning Occupational Information

Recognizing the difficulties in finding time for career or vocational counseling in relation to academic, personal, and other demands, the counselor then faces the specific problems and difficulties of using occupational information effectively. For example, the counselor must address the problems of overwhelming amounts of data, the different sources of data, the varying quality of data, the format and applicability of the data to school-age clients, and the necessity for evaluating data for accuracy, currency, consistency, and cost effectiveness. Additional problems involve developing and organizing local data, working with nearby agencies, and maintaining a system of follow-through and follow-up of school leavers.

If school becomes a part of a statewide or regional Career Information System (CIS), the counselor is faced with another adjustment in accommodating the existing career counseling program to the new system. The new career information system may or may not provide adequate user inservice training for counselors, even though service personnel are on call to answer questions and provide direct assistance. Bruce McKinlay (1979) has called the technical assistance provision an important link in a statewide CIS.

The counselor has little preparation or time, however, for planning effective use of the system, for identifying and developing the skills necessary for students, and for determining how to provide comparable information to students for whom the system is not appropriate; for example, those whose reading levels are below the level required by the system. While it is true that the system has the potential for providing access to more and better information with less effort, the key to the effective use of the system lies in the counselor's acceptance and integration of the system in the career development program of the school. This calls for close cooperation with schools and professional consultation beyond the mere use of the system per se.

Also, the fact that information systems are only one quality approach to providing occupational information should be kept in mind. Traditionally, guidance programs have included a variety of ways students could access occupational information. These have included printed materials, posters, microfiche, needlesort, films and filmstrips, audiovisual and audio cassettes, and files developed from clippings from magazines and newspapers, to name a few. With development of career resource centers, occupational information has been better organized, categorized, and made more accessible. In addition, firsthand observations and experiences—such as career shadowing, CETA employment, work-study, co-op, and part-time and summer employment—have been incorporated into programs. Many counselors have developed expertise in teaching skills in selecting, evaluating, and using data in the decision-making process through helping students use printed materials. Through a variety of

approaches, counselors utilize occupational information on a one-to-one or group basis to provide the most comprehensive, versatile, and effective career counseling program. The best of these traditional approaches still has the potential for the most variety and the most individualization in the use of occupational information. Harris-Bowlsbey (1979) has expressed herself clearly on the dimensions of this potential role and function problem for the counselor.

Competent Counselor Profile

Systematic Information Approaches

The counselor of the future will be dealing with many new considerations. These include relatively inexpensive information technologies; more accurate and consistent data; more local, regional, state, and national data; ease of access to national data; better strategies for accessing all data; user familiarity with the need for and the advantages of utilizing data, to mention a few. With the advent of these systematic information approaches the role of the counselor in relation to occupational information should be reexamined.

Centralization of Decision Making Concerning Occupational Information

The commercial development of systems of information has meant that the development, selection, and evaluation of data has become centralized and for the most part nationalized. Furthermore, the selection of the kinds of information; the classification and access of information by DOT, SOC, ROE, Holland, etc.; the theory of counseling; and the developmental aspects of occupational information are being pre-packaged for the counselor in both the commercial and state-developed systems of occupational information (Wilhelm, 1978; Hawaii SOICC, 1979; Missouri OICC, 1979; North Carolina OICC, 1978; South Carolina OICC, 1979).

When the state, institution, or local educational agency buys into a system, the purchase incorporates much more than the system itself. Among other considerations, the user is buying a theory of career development; a type of access strategy; an evaluation of the appropriateness of the data base; an evaluation of the appropriateness of the reading level to the users; a determination of the counselor component in the system; and a pre-selected point of counselor intervention. Even more important in some instances is the counselor's decision either to participate in the process or to allow others to become the career specialists. The counselor may accept the premise that no monitoring is necessary and that the student-user will work independently with the system. Many of these considerations apply not only to the selection of computerized systems but also to manual systems such as needlesort or microfiche systems.

Role of the Counselor and Objectives of the Systems

The role of the counselor is directly related to the objectives of the guidance systems. For example, Tiedeman (1979) defines the objectives of computer-based guidance systems as improving decision making—allowing students to relate knowledge about themselves to data about education, training, and work, thereby transforming the data into information for the purpose of career decisions. Tiedeman defines the counselor's role as assisting in interpreting and evaluating the results of the dialogue between the person and the data system. The responsibility for the guidance task,

as traditionally understood in relation to identifying, evaluating, and classifying data (occupational information) has been shifted from the counselor to the system. The system makes available to counselors and students data in "useable forms and at needed times and places" (Tiedeman 1979).

The computer-based guidance systems on the market today—GIS, CIS, DISCOVER, CHOICE, CVIS, etc. (Wilhelm 1978)—were predictable from Tiedeman's work in 1969 on the Computer-Based Information System for Vocational Decisions (ISVD). The commercial systems are designed to provide access to relevant data without always requiring the direct assistance of the counselor. The counselor no longer assumes the role of source or interpreter of facts; the counselor now has the responsibility of interpreting the students' use of data, of evaluating decision-making skills and resulting career decisions (Tiedeman 1979). The counselor in reality becomes a supervisor for the system.

Either by individual choice or as a member of a group who selected it, the counselor is part of a system which predetermines necessary skills and competencies. The role of the counselor has changed and so have the requisite competencies. Any systematic career information approach must be integrated into the counselor's present concept of guidance based on his/her counseling theory, experience, and capabilities. The only alternative is for the counselor to continue performing all the activities demanded before the appearance of the systematic career information approach. In such cases, the career guidance center is sometimes physically removed from the counseling offices, and career counseling becomes a discrete activity recommended to students to be completed at another time and in another place. The counselor may not attempt to become part of the system which becomes auxiliary rather than integral to counseling. In such cases the counselor's role has changed without full realization of the implications.

It seems to me the drift in this direction is not a good thing. However, two somewhat separate scenarios can be developed to equip the counselor to assist students better with labor market information.

Guidance function through a career counselor. The guidance function in terms of career development *will* be performed. The question is by whom and how well? How will the counselor's role change in assisting students in the use of occupational information?

If the guidance function is assumed by the career counselor as a part of the large career education program grounded in the elementary and middle school, the career counselor in the high school will assist students in the use of occupational information not only in the more traditional ways but also through computerized systems. The career resource center will serve as the focus of career counseling, and the use of occupational information will be integrated into the school's design for students' career development. The counselor will assume responsibility for aiding students in learning the concepts and skills necessary for career counseling; the systematic information approach will become another means of aiding the student in career development.

For those students who are motivated and who have the necessary reading skills, learning styles, and decision-making skills, the computerized system will offer an independent means of using occupational data at the times and places significant to them so that the *data becomes information.* For these students, the counselor's role as supervisor of the guidance system is appropriate.

Guidance function through an occupational information specialist with the counselor as broker. Recommendations are being made to create a new job classification called occupational information specialist (McDaniels 1976; NVGA-AVA Commission on Career Guidance and Vocational Educations 1973). The function of this specialist would be to evaluate, select, organize, display, and integrate occupational information into the system, whether it be a state system, a regional system, a school system, or a commercial system. The occupational information specialist (OIS) will make decisions

about arranging data so they can be transformed into information. The OIS will determine what data is included, in what form, at what time, and at what place in the guidance process. The qualifications and training of these specialists is another question, but certainly the responsibility for this function should not be given to an information specialist without appropriate background in education and guidance. The data should serve the system and relate directly to the goals and objectives of the system based on a conscious theory of career development and counseling.

With the emergence of the occupational information specialist, the counselor's new role is that of broker or intermediary. The concept of the broker has been promoted by the National Center for Educational Brokering, an agency concerned with advisement, assessment, and advocacy for adults. The emphasis on the educational brokering for adults is on the "empowerment of clients." Brokers help clients develop their capabilities for searching and evaluating information, for making decisions, and for acting on their own inquiries (National Center for Educational Brokering 1977).

As a broker or intermediary the counselor no longer collects, dispenses, selects, arranges, or interprets data. The computer or the manual device provides the information in the appropriate form and at the appropriate time. The counselor's role becomes that of a professional whose primary concern is with the system's success.

As a broker, the counselor assumes the role of assisting, interpreting, and evaluating the result of the dialogue between the person and the information system. The counselor is primarily concerned with the client's ability to become independent and to learn skills and techniques applicable to the present and future career decisions. The counselor also helps the student synthesize the process and results of the guidance experience so that the experience becomes information and reference for further career development (Tiedeman 1977).

New Counselor Role

The counselor as career counselor or broker should provide access to data, should understand the use of data and the process of transforming data into information, should evaluate the process, and should provide assistance to the user throughout the process. Equally as important, the counselor must understand, evaluate, and use the system effectively. In each of these activities the counselor needs performance competencies as well as the skills to aid the student-user to become self-sufficient.

Profile of Model Counselor Education Programs

There probably is no single model counselor education program on a preservice or inservice level to assist school counselors to use labor market information. There are programs which may have some very positive characteristics, but none that seem to cover all areas comprehensively. At the same time there probably are no states which have put all of their resources together to organize a really model program. There are some SOICC operations which see inservice or continuing counselor education programs as central to their ultimate success. There are fragments of good efforts outside these two mainline efforts, but nothing at present seems to be an exceptionally promising comprehensive program.

In spite of this somewhat gloomy overview, it still seems possible to construct a model which combines the best of various separate parts in a cohesive whole. We need to include professional standards, strong preservice components, state leadership and direction, a few local examples, and the key element of national support and concern.

The model counselor education program has to be built on three professional position statements:

1. NVGA AVA Position Paper on Career Development (1973)
2. APGA Position Paper on Career Guidance: Role and Function of Counseling and Guidance Personnel Practitioners in Career Education (1975)
3. ACES Position Paper: Counselor Preparation for Career Development and Career Education (1978)

The essence of the NVGA AVA statements is summarized below. These are the five points to which the individual student is expected to be able to relate:

1. Self-understanding, which includes persons' perceptions of their own characteristics and their relationship to others and to the environment
2. Understanding of the working society and those factors that affect its constancy and change including worker attitudes, lifestyles, and mobility
3. Awareness of the part that leisure plays in a person's life
4. Understanding of the multiple factors to be considered in career planning
5. Understanding of the information and skills necessary to achieve self-fulfillment in work and leisure

The APGA Position Paper calls on counselors to assist in this process by providing leadership in the following activities:

1. Identification and programmatic implementation of individual career-development tasks
2. Identification, classification, and use of self-educational and occupational information
3. Assimilation and application of career decision-making methods and materials
4. Elimination of the influence of both racism and sexism as cultural restrictors of opportunities available to minority persons, females, and others who may be affected
5. Expansion of the variety and appropriateness of assessment devices and procedures required for sound personal, educational, and occupational decision making
6. Emphasis on the importance of carrying out the functions of career counseling

The ACES Paper calls for preservice and inservice programs to help counselors and education supervisors bring about the following goals:

1. To train counselors for major leadership functions in the provision of career guidance for children, youth, and adults
2. To emphasize that career education, as broadly defined with major emphasis on self and value development, provides the most feasible framework within which to deliver comprehensive career guidance to all persons
3. To draw on career-development theory and research to provide a solid conceptual framework, organization center, and central focus for career education and career guidance
4. To train counselors for collaborative relationships with other educators, the community, and parents to infuse career education into the curriculum
5. To provide counselors with skills in the development of guidance-based career education programs, including the identification of developmental tasks, objectives, and strategies for program implementation and evaluation appropriate to the specific population served

6. To provide counselors with skills in organizational development and the change process to help them implement career education and career guidance in schools and agencies
7. To initiate and encourage research on career development, career guidance, and career education to provide documentation for program outcomes

To my knowledge, no program in the country really achieves all these desirable outcomes satisfactorily. We try at Virginia Tech. I am sure there are similar efforts at Penn State, University of Minnesota, University of Missouri, North Carolina State University, University of Southern California, Long Beach State University, and others; but we all seem to be falling short.

Since the main labor force of school counselors is already on the job, inservice or continuing education is what really needs to be emphasized. Here and there strong preservice and inservice efforts are recorded. Engen (1977) reported on one statewide approach in Iowa which combines the energies and resources of counselors, counselor supervisors, and counselor educators in updating and renewing counselor skills in the area of career development. The strength of the Iowa programs is in their cooperative approach, needs-based nature, and strong career development orientation.

Similar results were reported earlier by Ashley (1976) in a Kentucky project to upgrade and retrain counselors by assisting them with planning, implementing, and evaluating improved vocational guidance activities. This project was based on an integrated and systematic approach to vocational guidance. Results indicate that an integrated vocational guidance approach is highly beneficial to the career development of students.

In a number of states, funding for vocational guidance and career education has been used wisely to update counselor occupational information skills at either a local level or in area conferences. One drawback of many of these approaches is that they tend to be short-termed (one to five days) and short-lived (year-to-year with no long-range commitment). Tom Hohenshil at Virginia Tech is doing an excellent job of improving counselor occupational information skills through conferences which comply with the vocational guidance mandate in the Virginia State Plan for Vocational Education.

The same type of pattern seems to be repeated in the efforts of some SOICC programs to provide continuing inservice counselor education. Some have commented unofficially that the ultimate success of their efforts lies in good, strong counselor inservice. At the other extreme, some SOICC personnel, when asked about this component, simply shrug and indicate they have not thought much about inservice counselor education. They *hope* that everything will work out, but no real plans are evident to see that counselors at the local level are prepared to implement a statewide program.

Recommendations for Preservice and Inservice Training

In my judgment much of our present plight in the use of labor market information is due to a lack of national and state policy on preparing and maintaining an adequate counselor skill level. The professional organizations have stated their positions very clearly but with limited impact. There is going to have to be some more dramatic action at the national level. The recommendations which follow are meant to be a call for action at the highest national levels. They deal with both preservice and inservice counselor education.

Preservice Counselor Education

1. It is recommended that a three-year project be launched to develop, field test, and evaluate a model occupational information curriculum. The purpose of this effort would be to make available to all counselor education institutions curriculum materials that would be easily integrated into a counselor education program and would provide instruction in the fundamental aspects of collecting, organizing, disseminating, and evaluating occupational information.

2. It is recommended that every counselor education program include practical experience in providing programs to students, parents, and teachers. It should be emphasized that good occupational information is vital to career decision making; therefore, it is an indispensable element in a school curriculum.

3. It is recommended that certification of counselors be changed, where necessary, to include increased competency in career development. It is time to further implement competency-based counselor education programs that focus on career development. Likewise recertification should require such courses.

4. It is recommended that counselor education programs be integrated into teacher education programs if a career education concept that includes occupational information is to realize its potential in school curricula. Teachers and counselors must learn how they can help each other in providing career learning experiences for students.

Inservice Counselor Education

1. It is recommended that all approaches to inservice training reflect a common denominator. More leadership on developing systematic approaches to the training of occupational information users must come from those who collect the data and create the occupational information materials in the first place at the national, regional, and state levels. Counselors at the local level are best at implementation, not development. The counselor needs to be proficient at helping students use occupational information materials in making career decisions.

2. It is recommended that a major long-term commitment be made to a consistent and well-planned inservice occupational information program for counselors. This should be carried out on a planned schedule throughout the year, *every year*. A variety of methods should be tested to determine which is most effective. Leadership could come from a consortium of university counselor education faculty, the state Department of Education, state Employment Commissions, SOICC, and regional training centers in the Employment and Training Administration of the Department of Labor.

3. As one means of creating a rapid impact on the inservice needs of counselors, it is recommended that the Department of Labor or NOICC engage fifteen to twenty of the best qualified career oriented counselor education institutions to provide one week workshops in three or four nearby states. Representatives of these fifteen to twenty institutions should be brought to Washington for a comprehensive briefing and planning session with the Department of Labor and NOICC.

4. On a longer range scale, it is recommended that the Department of Labor or NOICC create a systematic plan for counselor inservice training (similar to the old National Defense Education Act of 1958) that would provide for a cadre of highly interested and able counselor educators to work with Department of Labor officials in developing a one- or two-week occupational information inservice program. The purpose of this effort would be to provide training for counselors in the latest occupational information materials and dissemination techniques, the most effective ways of employing information to assist their clientele in the transition from school to work, and the most practical methods of evaluating the materials and techniques used.

References

Adkins, Les. "New Demands on the School Counselor." *Counselor Education and Supervision* 17, no. 2 (December 1977): 137-141.

Ashley, J. Wayne. *A Field Trial and Analysis of Selected Occupational Guidance Activities with Counselor In-Service Education.* Bowling Green, KY: Western Kentucky University, 1976.

American Personnel and Guidance Association. *Position Paper on Career Guidance: Role and Function of Counseling and Guidance Personnel Practitioners in Career Education.* Washington, DC: APGA, 1975.

Association of Computer-Based Systems for Career Information. *Standards and Guidelines for Accreditation,* 1979.

Association for Counselor Education and Supervision. "Position Paper on Counselor Preparation for Career Development/Career Education." *Counselor Education and Supervision* 17, no. 3 (March 1978): 168-179.

"Careers, Labor Market Structure and Socio-Economic Achievement." *American Journal of Sociology* 83, no. 3 (December 1977): 626-36.

Chapman, Warren et al. *Field Test and Evaluation of a Computer-Based System of Interactive Guidance and Information.* Princeton, NJ: Educational Testing Service, 1977.

Cheek, Jimmy C., and Christiansen, James E. "Perceptions Regarding the Role of the Vocational Counselor." *Journal of Educational Research* 70, no. 5: 281-5.

Chisholm, Charles, and Kessler, Charles. *North Carolina Career Information Software Delivery System Study.* North Carolina Department of Managements, 1978.

Ehrle, Raymond A. "Employment Counseling as an Integral Part of an Active Labor Market Policy." *Vocational Guidance Quarterly* 13, no. 4: 270-274.

Engen, Harold B. "Toward Updating and Renewal of School Counselor." *School Counselor* 25, no. 1 (September 1977): 24-30.

Fox, Warren H., Ghymn, Ed, and Walker, James L. "Nevada Occupational Information Use and Needs Assessment." Reno: University of Nevada, 1979 (unpublished).

Harris-Bowlsbey. "Career Planning Services: Linking Information and Clients." *New Directions for Education and Work,* no. 5 (1979).

Hawaii State Occupational Information Coordinating Committee. *On Developing a Hawaii Career Information Development System.* Honolulu SOICC, 1979.

Healy, Charles C. "Manpower Trends: Counseling or Political Solutions?" *Personnel and Guidance Journal* 51, no. 1 (September 1972): 39-41.

Maine Occupational Information Coordinating Committee. "The Development of a Career Guidance and Occupational Information System." 1979 (unpublished).

McDaniels, Carl, ed. *Occupational Information Dissemination Project: Final Report.* Blacksburg, VA: Virginia Polytechnic Institute and State University, 1976.

McDaniels, Carl, ed. *Status Report on Educational Information Centers in Virginia, 1978-79.* Blacksburg, VA: Virginia Polytechnic Institute and State University, 1979.

McKinlay, Bruce. "Systematic Delivery of Career Information." *New Directions for Education and Work,* no. 5 (1979).

Missouri Occupational Information Coordinating Committee, "CIS Committee Report." 1979 (unpublished).

National Occupational Information Coordinating Committee. *Career Information Delivery Systems Grants Program (CIDS),* 1979 (unpublished).

National Occupational Information Coordinating Committee. *Career Information Delivery Systems: A Positive Paper on Organization and Development.* 1977 (unpublished).

North Carolina Occupational Information Coordinating Committee and the State Management Systems. *North Carolina Career Information Software Delivery System Study.* 1978 (unpublished).

NVGA-AVA Commission on Career Guidance and Vocational Education. *Position Paper on Career Development.* Washington, DC: National Vocational Guidance Association, 1973.

Ohio Bureau of Employment Service. *Ohio Career Information System Annual Report.* Columbus, OH,.1979 (unpublished).

Price, Martha, and Arneand, Susan. "Administrative Internship: Approaching the Job Market Creatively." *Vocational Guidance Quarterly* 27, no. 3 (March 1979).

Rosenberg, Howard, and Wilkinson, L. "Career Information Resources Applications and Research 1950-1979." Boulder: University of Colorado, (unpublished).

Rabush, Carol M. *Computerized Vocational Information System Catalog.* Westminister, MD: Western Maryland College, 1978.

State of Florida, Dept. of State. "Pre-view, a Guide for the Utilization of the Florida View Occupation Information System." 1977 (unpublished).

Sobol, Marion Grass. "Use of Labor Market Forecasts by High School Counselors." *School Counselor* 26, no. 1 (September 1978): 57-61.

South Carolina Occupational Information Coordinating Committee. "Proposal Submitted to the Executive Director, NOICC for CIDS Grant." 1979 (unpublished).

National Center for Educational Brokering. "The Management of Information: Some Principles from Practice." NCEB Bulletin 2, no. 7 (November 1977).

Tiedeman, David V. *Designing Our Career Machines.* Cranston, RI: Carroll Press, 1979.

U.S. Department of Labor, Employment and Training Administration. *Career Information Systems Grants Program: State Project Summaries.* 1978.

U.S. Department of Labor. *Systems of Career Occupational Information for Youth and Other CETA Participants.* July 1979.

Wilhelm, Stephen. "Computer-Based Guidance Systems." *Journal of College Placement* 38, no. 2 (Winter 1978): 65-69.

Wood, Helen. "Occupational Outlook Information: Its Challenges in Vocational Guidance." *Vocational Guidance Quarterly* 22, no. 4 (June 1974): 301-307.

LABOR MARKET INFORMATION: HOW WELL EQUIPPED ARE COUNSELORS TO ASSIST STUDENTS?

A Reaction by Edwin A. Whitfield

In his paper concerning the problems and difficulties faced by counselors, Dr. McDaniels states that counselors are ill-equipped to deal with labor market information. He makes the point that "the counselor is operating in an environment that is even more demanding on the counselor's time and expertise." He adds that "the requisite skills and competencies for personal and academic counseling . . . have increased greatly in the past twenty years."

There are many demands on a counselor's time. There is, however, approximately the same amount of time during which counselors serve students. Clearly, we are talking about priorities, and the fact remains that career guidance receives a low priority from many counselors. Having career knowledge and skills is viewed by many counselors as a plus rather than a prerequisite to a *total viable* program.

Many counselors are not interested in nor motivated toward providing career information and career guidance to their students. The inadequacy of such service may be due to lack of time. Counselors are busy and consequently all services will suffer. None, however, should be ignored. Personal, academic, and career counseling are *not* mutually exclusive.

It has also been hypothesized that there is little prestige in providing career information to students, and for this reason counselors devote more time to more prestigious aspects of the guidance service. Again, this is a matter of priorities.

Combined with the above reasons (and possibly paramount to the problem) may be the counselor's feelings of insecurity about dealing with an area in which he/she usually has inadequate training and very limited experience. The limited amount of attention given to career information and guidance in counselor education programs and the narrow scope of recent career experience by many counselors may combine to divert the counselor's attention and growth to more familiar areas.

Dr. McDaniels also commented on the problems faced by counselors when their school becomes a part of a statewide or regional career information system. "The counselor," he states, "is faced with another adjustment in accommodating the existing career counseling program to the new system." This, unfortunately, is true in most instances when a career information system is added to an existing school program. Instead of choosing a system to fit into an existing program, school personnel usually adjust their existing program to fit the new system. Schools fail to establish the goals and objectives of their career program and then acquire the tools to meet nonexistent objectives. The new system must be flexible enough to be utilized by existing staff to meet established goals and objectives.

Dr. McDaniels pointed out that in buying into a career information system, the counselor may well be buying a theory of career development, accessing strategies, and in some cases a predetermined counselor role. Schools and particularly their counselors should have a clear knowledge of where they are going before adapting a system to help them get there.

In looking at the "competent counselor profile" we must keep in mind that the counselor is not merely a transmitter of career data. The data must be translated into information and aimed at the ultimate user - the student or client. The counselor must become proficient in assisting individuals to locate, internalize, utilize, and profit from this information.

In defining the profile of a competent counselor, it must be clear that all counselors on a staff must have career competencies. It is not a function that can be delegated to only certain members of the guidance staff. It cannot be compartmentalized to individuals or to a career center.

With the increased amount of information and knowledge in the career area, it is feasible and probably necessary that a member of the staff take the lead in this area, just as other members of the guidance team will assume the responsibility in other aspects of the guidance service. But these areas of expertise must be viewed as areas of knowledge to be shared with all members of the counseling staff. Counselors must become consultants to each other and in this way provide a total service to each of their counselees.

If as a profession we employ the assistance of qualified occupational information specialists and move to a "brokering" role with clients, each counselor still must have career knowledge and skills. Although the addition of paraprofessionals can relieve counselors of some of the technical career duties, counselors must maintain the career competencies needed to serve their counselees. In the same way that career needs are not a detachable aspect of the clients they serve, career guidance is not a detachable part of the counselor's role.

A basic problem in bringing about change in the role of the counselor is the counselor education programs. As Dr. McDaniels points out, more emphasis must be placed on career competencies at the preservice level. The model proposed for an occupational information curriculum must be initiated and implemented to provide counselor educators with the skills and knowledge needed to bring change to their programs. Such a model, as suggested by Dr. McDaniels, must include teacher education as well as counselor education programs. Career guidance must become a part of the total school program.

Inservice programs for counselors must also provide them with the competencies necessary to make the career information useable to students and the public. A major obstacle to the success of any inservice program remains the low level of interest by many counselors. Career guidance is perceived as a low priority not only by staff members but by the community. Parents, board members, and the community in general must be educated to the vital need for adequate career guidance. Until there is a demand for competent and comprehensive career assistance, few will take advantage of the opportunities for professional growth and skills acquisition in career guidance.

CHAPTER III

RECOMMENDATIONS FOR THE IMPROVED USE OF LABOR MARKET INFORMATION IN SECONDARY SCHOOLS

A Paper by Edwin L. Herr

Abstract

Dr. Herr states that labor market information needs to be refined into statistics that are applicable to specific local communities. Information in this form will be of more value to secondary school youth than general career information. He also stresses the need for communication among educators; local, state, and federal agencies; and the frequently overlooked sources of local labor market information in the private sector such as resource and development organizations, manpower planning agencies, and apprenticeship councils. These sources, working as a group, have the potential to present labor market information in a locally specific and educative form. In her response to Dr. Herr's paper, Evelyn Ganzglass describes the impact of his themes on economically disadvantaged populations.

Edwin L. Herr is head of the Division of Counseling and Education Psychology at The Pennsylvania State University. Evelyn Ganzglass is program officer of the Employment and Training Administration of the U.S. Department of Labor. She is a program planner for the Youth Employment Demonstration Projects Act (YEDPA).

Introduction

One only has to walk through career resource centers in secondary schools or to be on a counselor's mailing list of advertisements to recognize the incredible magnitude of occupational and/or labor market information available in all sorts of forms, about all types of topics, for different populations. Much of this information derives from or bears the logo of the United States government. Frequently this information is displayed well and is apparently accessible to students. Students are often observed to be viewing the microforms, interacting with the computer, reading through the material. They seem to be busily engaged as do the school counselors who manage such information and assist the students in its use.

Why then the need for this symposium or, indeed, this paper? Although my task is a less scholarly one than that of Dr. Borow or Dr. McDaniels, I believe that the importance of this topic requires some observations about career and/or labor market information which go beyond the superficial. As a context for my concluding recommendations, I would like to make some observations which I hope will stimulate our discussion of the recommendations and which will make clear the experiential lens through which I view the topic. These observations may be a caricature of reality, but I hope they are constructively provocative.

Career or Labor Market Information

First let me confess to some ambivalence about how we are using the term labor market information in this symposium. For me, this term is a narrower one than that conveyed by the term career information. I see career information as dealing with the total world of work wherever it occurs, the full range of preparation for it, broad perspectives on the spectrum of working conditions, work incentives, work settings, ways of accessing the world of work, self assessment in relation to the occupational possibility structure, and other factors that lay a base for planning which goes beyond immediate job choice. In contrast, I view labor market information as descriptive of the types of work actually available in the industries and businesses that exist in a specific geographic area at a particular point in time (Mihalka 1974). As such, I see labor market information as more dynamic in its potential for short-term change than is career information. The latter talks about the occupational structure in terms of possibilities; the former, in terms of actualities.

Both of these types of information are extremely valuable to secondary school youth, although it is possible to argue that the primary value of each kind of information depends upon the post-secondary plans of each student. To be as concise as possible, postsecondary reality for different secondary school students might be cast in any of the following forms, according to Herr and Cramer (1979):

1. Choosing a postsecondary vocational or technical school to pursue some skilled specialty
2. Gaining access to a college and selecting a major field of study with its myriad implications for later occupational endeavors
3. Converting part-time work experience while in school into a full-time position in the labor market
4. Entering the labor market for the first time
5. Deliberating about military service, marriage, or combining work and continuing education
6. Acquiring an apprenticeship opportunity (p. 186)

Herr and Cramer go on to say, "However, there will also be a sizable number of students for whom none of these possibilities seems viable or appealing; for them, the future and its reality represent threat or trauma. For some of these students, the future beyond high school represents a confrontation with the ramifications of a general state of indecisiveness regarding life and their place in it. Others will find the burden of decision making untenable and will use various avoidance behaviors to escape or postpone facing such an awareness directly" (p. 186).

Such perspectives argue that, just as in other settings, career guidance in the secondary school must depend on where a particular student is in his/her choice-making—about work, education, lifestyle, high school—and what he/she needs most at a given time—reassurance, information, reality-testing, emotional release, attitude clarification, or work experience. Further, unlike earlier educational levels, secondary school guidance activities must take into account the intensity of planning, readiness to participate in life as an independent person, and the level of goal directedness which characterize the individuals to be served. In sum, the needs for career or labor market information or both vary with individuals. A void in either information emphasis or in its appropriate use by students, guidance specialists, or teachers restricts the range of work-related educational purposes which can be met in the secondary school.

The Purposes of Labor Market Information and the Purposes of Secondary Schools

Given these observations, I believe that, despite the overall excellence of the labor market information provided by the U.S. Department of Labor or its state counterparts, there still remains a lack of interface between the content and purposes of such information and the needs of students and the guidance processes in secondary schools: In a spirit of constructive criticism, let me attempt to be more specific.

First, at least at this point in our history, the information available to secondary schools is primarily oriented to national or state trends in career outlook rather than to local trends. This is true even though regional labor market surveys or local job bank information is available to translate national and state trends into substate outlook or actual job availability in local terms. This is true even though there are reams of statistics in many state-level publications that have labor market implications for local communities; in general they are, in fact, not translated into a format which secondary school personnel or students can use. This is true in spite of the important use for many persons of such quality information as *Occupations in Demand* at job service offices; other persons simply do not have the type of geographic mobility implied in such a format. This is true in spite of the obvious intent of the Occupational Information Grants program to provide persons, including secondary school students choosing jobs and careers, with "current, accurate, and locally relevant occupational information" (Ausmus 1977). These systems, however excellent they are, are still confined to a small number of states and, therefore, make an impact only on a small portion of the secondary schools of the country. At some future point, as the NOICC/SOICC structure comes to full maturity, this matter may no longer have relevance, but it is now an issue which deserves note.

One might be more sanguine about certain labor market information deficits if the large commercial market filled the gaps. It does not. Most commercially produced information is couched in national generalizations and, indeed, often recasts the information produced by the government in fancier packages or converts the content of such information into other types of delivery technology—games, occupational briefs, nonfiction stories, filmstrips, etc. At a commercial level, it is obviously more profitable to provide material which has some generalized relevance to the largest audience which is, of course, the national—not the local. While understandable in economic terms, this condition still leaves a void in the information needed by many groups of students.

Most secondary school students, on the average 50 percent or more, will remain within twenty-five miles of the town in which they attend high school. They do not compete for jobs in a national arena but in a locally defined one. While information on national trends can be an exciting stimulus to broad exploratory behavior and to guided fantasy, most secondary school students ultimately have to make compromises with the reality of local job availability.

To return then to the matter of available governmental labor market information, it must be acknowledged that regional labor market surveys and local job orders from employers constitute two types of local information that are important to some secondary school students. But whether this information accords with the career planning and choice needs of most secondary school students, whether it is systematically provided to schools and school counselors in ways that are most useful, or whether it indeed addresses purposes which schools have is much more problematic. These dimensions of local labor market information are worth some brief attention.

First, let us examine the matter of purpose. Thirty years ago, Christensen (1949) contended that the several functions of occupational information in counseling could be classified as: (1) instructional, (2) instrumental, (3) distributional, and (4) therapeutic. Many other authors since that time

(Hoppock 1976; Norris et al. 1979) have offered other variations on these themes. The point is, however, that local labor market information has typically been developed for distributional purposes to match a job seeker with available opportunities which require his/her experience and skills at a point of immediate choice. In unemployment terms, such a purpose would likely reduce the length of time an individual would be involved in frictional unemployment as he/she moves from one position to another. This could happen either as a function of initial job entry, volitional changes from one position to another, or enforced job dislocation. Such an approach would also be an appropriate response to seasonal unemployment and even cyclical unemployment as it impacts on a local community. The distributional nature of labor market information has, in the main, worked very well. It has supported quite directly the primary function of the interviewers and counselors of the U.S. Employment Service: to place applicants in jobs (Helwig 1979).

However, the purposes of schools and school counselors in the use of labor market information is not just distributional, but instructional, instrumental, and therapeutic as well. Thus, whether under the rubric of career education, systematic career guidance, or career planning, these purposes for labor market information require that students gain a broad understanding of the occupational structure, job families, points of access to the labor market, and related material. This information forms a type of instructional content by which they can connect educational experience with opportunities in the labor market or by which they can locate themselves in an adult role which has some continuity with where they are now. In large measure, the schools see placement not as an event but as a process of acquiring information and experience to use in forging career plans. They see this process as embracing immediate, intermediate, and distant goals.

Such a purpose requires that a student be helped to know his/her own strengths, weaknesses, values, preferences, and the ways they might be met in the labor market. Such a purpose also requires that a student be able to consider the routes available to his/her goals, the constraints upon them, the trade-offs, and the mini-decisions which will be required in preparing as effectively as possible for the available alternatives. To the degree that occupational or labor market information can stimulate a student to further explore and plan, it meets instructional and instrumental goals in providing the motivation as well as the knowledge base for purposeful activity.

The school counselor frequently needs to help students scale down or change ambitions which seem inconsistent with their demonstrated ability or the resources available to them, and they need to do this in such a way that the student doesn't "lose face." It may be that such students need to secure information about the occupation they prefer and compare its educational requirements with their academic grades or scholastic aptitude. Perhaps such students' choices are motivated by emotion, glamor, or romance rather than by knowledge of themselves or of occupational alternatives available. Perhaps the counselor will need to help the student locate alternative occupations or specific jobs which are available and which might better meet both the ambitions and the abilities of the student. Such a counseling experience might also help the student realize that both educational and occupational information have meaning only insofar as such data are evaluated within the framework of what individuals know about themselves. To the degree that labor market information would be useful for such purposes it would serve a therapeutic function.

I have undoubtedly caricatured the existing purposes for which labor market information is prepared, the uses to which schools and school counselors must put labor market information, and the differences between what is and what is not needed. Nevertheless, the implicit question here is How can labor market information maintain its distributional function and also be more educative? Permit me to suggest several possibilities.

Some Possible Perspectives on Labor Market Information

First, it would seem necessary to extend the parameters of local labor market information. For example, it would be extremely useful to build into such information local occupational prediction or "experience" data. Which students get which jobs? What curriculum were they in? What were their grades? Did they have previous part-time work? What was their starting income? How long did they remain in their initial position? Such local probability data has been shown to be quite influential in student choice making in the few instances where it has been gathered and systematically retrieved (Yabroff 1969). It would also likely carry potential for instructional, instrumental, and therapeutic uses.

Labor market information could also describe where workers come from and where they go in relation to specific occupations. In this context, occupational mobility can be seen as a number of routes to the same occupation. Each of these routes, at least in the primary labor market, can be thought of as an escalator toward, or a feeder of, some occupation. Some of these routes are a function of different ways of learning—in vocational or general education or on the job itself. Other routes are functions of particular occupations representing the supply from which the recruits from other occupations come. Some occupations tend to be where most people who enter them stop. Other occupations are only way stations on the road to another point in one's career. Data about where persons go from jobs in the secondary labor market is likely to destroy the myth that there are dead-end jobs and help students recognize that the experience and occupational information such jobs can provide can become a foundation for occupational mobility.

Many students and adults engaged in career planning tend to believe that there is only one route to given occupations. If they do not like the route they know about, they simply reject the resulting occupation and look elsewhere. However, occupational mobility is complex, not only in geographic terms, but in local terms. The mobility patterns across and among different jobs or occupations form a giant lattice of interrelated movements rather than single, isolated, and clearcut tracks.

Current models of career education, cluster concepts of vocational education, and paradigms of personal decision making need a base of information on which students or adults can plan immediate, intermediate, and distant goals. Such planning in any particular case may need to take into account any of the following types of questions:

1. What are the multiple ways by which persons enter particular occupations?
2. What lines of transfer exist among occupations?
3. Which occupations feed other occupations?
4. What is the likelihood of persons remaining in the same occupation for a five-year period?

Information to answer the types of questions about occupational mobility important to many persons in the process of choice making is not available except in gross national generalizations. People in a state or local area have no clearcut sense of whether national trends or statistics are pertinent to them—or, if such information is available, it is frequently not in a form which a counselor or a student can readily use.

One of my doctoral students and I used 1970 census data to portray graphically such occupational mobility in Pennsylvania for professional and technical workers (Driscoll & Herr 1976). It was a fascinating study for us, and it was found to be quite helpful to school counselors, judging by their reports to us. We published our findings in a format that gave a one-page description of each of 190 different occupations with a one-sentence definition of the job (e.g., "an accountant compiles and

analyzes business records and prepares financial reports for clients"). We included the DOT number and a section on getting the job, including what you should be able to do, what you should prefer to do, what you should be physically able to do, and what you should know (e.g., "a license is needed to be a CPA."). We also gave a brief description of typical activities (e.g., what accountants do on the job), things to think about (advantages and disadvantages), preparation and training needed, and where to get more information. We also included a brief statement on mobility over time for each occupation—e.g., what 1970 accountants were doing in 1965 and what 1965 accountants were doing in 1970.

I do not hold this approach up as a model, but it is the type of labor market data which would be extremely useful to secondary school students and counselors, particularly if they were done at a state and preferably at a local or regional level.

Beyond the occupational prediction and mobility data which has been suggested, other local labor market information helpful to secondary school students include the following:

- Apprenticeships in the local community, the trades in which these are offered, procedures for applying
- Types of employer training available in the local community and under what conditions
- Federal manpower training opportunities (e.g., CETA and the various youth entitlements, Job Corps, public service careers programs, etc.)
- Relationships between academic subject matter and employment opportunities
- Agencies available to assist with labor market access
- Estimates of workers who are self-employed, the types of self-employment present, and the skills training or experience of self-employed people
- Special conditions which local job opportunities require (e.g., license, particular types of training or education, union membership)
- Postsecondary schools in the local area offering particular types of approved training
- The local occupation, industry, or company that has employed the largest number of dropouts and graduates from the local school districts
- The local occupation, industries, or companies identified by numbers employed and types of workers
- The occupations that account for most of the Employment Service placements, the kinds of job orders routinely handled, and where beginning workers are most in demand
- Services that are available for the unemployed

Such a broadening of what is traditionally considered labor market information may seem unrealistic, and perhaps it is a sole function of a partiuclar agency. But these are the kinds of information which secondary school students need for instructional, instrumental, and therapeutic purposes. In all likelihood, these types of information also have distributional characteristics. The question of what roles in data collection and analysis various groups might play will be treated a bit later. As new configurations of federal agencies deal with labor market information and its delivery, a primary question must be, How can we interface with school personnel and programs in the most effective manner?

Let me return to the second question I posed a bit earlier. Is labor market information systematically provided to schools and school counselors in ways that are most useful? If one thinks of such tools as the DOT and the *Occupational Outlook Handbook* or the various computer-based systems

such as the Oregon or the Minnesota Occupational Information system, the answer is affirmative. But if one talks about regional labor market survey data or local job bank information, that is much more problematic.

When I was preparing this paper, I called a local office of the State Employment Service and asked if I could have any copies of labor market information they provide to school counselors. I was told there was none. They said the only contact they had with school counselors about labor market information is when the school counselors call to ask a specific question. There are lots of reasons for the answer I got, and there are undoubtedly other places where I would get a very different answer. I have been told the same thing in other parts of the country, and I have experienced the same thing as a local and as a state director of guidance.

Why do I raise the point? Primarily to illustrate the fact that despite federal legislation such as the Vocational Education Act of 1963 and the subsequent amendments to VEA in 1968 or the various agreements at the federal level between the Department of Labor and the USOE, local employment counselors and school counselors do not routinely share labor market information. Nor are school counselors routinely taught what services are provided to various target groups of economically disadvantaged or handicapped in-school and out-of-school youth through the Employment Service or in its responsibility to CETA, YEDPA, etc. I do not say this to fix blame but rather to identify a continuing problem of communication, collaboration, and identity among professional counselors who happen to work in different settings and with different populations. This is not to say that employment counselors do not work with school people in administering the GATB and then trying to place members of the senior class who are not going on to college or who may be hard to place. It is to say that cooperation does not typically extend to the systematic provision of and help with labor market information at a local level which is most consistent with the types of career planning and support mechanisms present in the secondary schools.

Let me give you another example, although I am admittedly stretching in this one. I was reading some material recently on the CIDSs now under development as a part of the NOICC/SOICC system. In the area of information collection and dissemination, it appeared that the Standard Occupational Classification was chosen as the classification system to be used. My only reason for noting this fact is that this system is incompatible with the information filing and classifications systems which most secondary schools now use: e.g., the DOT, the fifteen USOE occupational or career education clusters, or such typologies as that of Holland. Therefore, if such a move is not to further exacerbate the problem of labor market information use by secondary schools, cross referencing among frequently used classification systems as well as inservice/demonstration of CIDS components as part of the implementation strategy would seem to be in order.

Before turning to other related topics, let me briefly summarize what is at least implicit in what I have said thusfar regarding gaps, problems, barriers, or possible overlaps in delivering labor market information.

Problems

1. Although there is much career information available, it tends to be primarily national rather than substate or local in its base of concern. Where it is regional (substate) or local, it tends to be trend oriented or descriptive of immediate job availability rather than capable of providing occupational prediction or experience data. It usually does not provide data concerning occupational or job mobility as defined in terms of what kinds of persons enter occupations, where they come from, and where they go. If career planning is concerned with more than immediate job choice (as is true

in many, if not most, secondary school programs), then current labor market availability tends to omit certain types of important information.

2. In view of these problems, it appears that labor market information has not fully addressed educative or career exploratory purposes of the secondary school. Rather, it has focused mainly on the distributional purposes of the adult or out-of-school populations.

3. Although federal legislation has included expectations that the employment service would share labor market information with school counselors and that school counselors would share information about the occupational qualifications of vocational education students with the employment service (Hoyt 1969), such an expectation seems still to be a goal, not a reality.

4. Research specific to the uses of occupational or labor market information by students is still in a relatively primitive state. Specifically, research needs to address such questions as, Do students or adults think in terms of careers or entry jobs, school subjects and college majors, or clusters of interest? How do such perspectives bear on achievement motivation, career motives, and occupational valuing as these bear upon planning or adjustment to work? How much information do persons need before they can make a commitment at a given choice point? What are the effects of the tentative goal-setting of preadolescent youth on later choice, and how is available information related to such choice making? Are there differences among various population groups (defined by sex, race, ethnicity) in the types of labor market, occupational, or career information preferred?

Related to such research issues are needs to identify occupations in the technical and health fields, public employment sector, consumer protection and production services, or other career clusters which suffer low visibility and need occupational information attention (Herr & Cramer 1979, p. 359).

At another level, research needs to establish how labor market or career information can be localized most effectively. How can it be routinely collected? What should be collected? Who should or could collect it? In what form should it be provided to meet educative purposes of different groups at different educational levels? Many other research questions could be addressed here. However, the literature which school counselors read shows that most of the research tends to be concerned with career development theory and process rather than content questions.

Barriers

Although I have not discussed the matter explicitly, barriers to delivering labor market information take several forms. One is the degree to which schools expect counselors to engage in such activity in relation to the many other expectations which schools, school boards, parents, students, special interest groups, and professional organizations hold for counselors. Another is the fact that until recently, the goals for school counselors (e.g., to assist students to become effective choice makers) were couched in such global terms that the process ingredients, resource needs, and behavioral expectations which combine to meet such goals were obscure. This condition is now changing under the pressure of competency-based or micro-counseling models which translate goals into resource requirements, training needs, and specific expectations. As this process continues, it becomes obvious that some tools needed to meet certain expectations do not exist, knowledge bases are often equivocal, and sometimes the goals themselves are unrealistic in view of the complexity of the behavior at issue.

Still another barrier is the training of school counselors themselves. The Rogerian view of client-centered counseling held that information giving and testing of any kind, if not an outright hindrance,

are of minor importance to effective counseling. This view has influenced the majority of counselor preparation programs from the late 1950s to the present. I believe that such a position is shifting, but residual effects remain in many school counselors who were trained in programs where such a perspective pertained.

A barrier which is more obscure, almost totally opposite to what I have just said, but also of consequence is the situation where counselor preparation programs have trained school counselors to collect their own local labor market information through community surveys, job analyses, etc. While this might be an admirable counterbalance to the Rogerian emphasis on process, the fact is that most school counselors have neither the time nor the sanction of the school administration to pursue such goals. There are exceptions to my conclusion here, but they are usually the result of a consortium approach by local professional organizations to collect local labor market information or the result of school personnel using students to create such data bases through interviews with workers and other data collection schemes. Sometimes the school personnel have elicited the cooperation of the Chamber of Commerce, the National Alliance of Business, or some other community-based organization to assist in such data collection. There seems to be some increase in these kinds of activity under the influence of career education auspices, but I know of no documentation of this fact.

A further barrier which I will mention here goes back to the training of both school and employment counselors. Neither of these groups of professionals has systematically been taught to take each other into account nor to develop the skills and identity required to function in collaborative roles. The expectation that employment service counselors would share labor market information with school counselors was mandated by federal legislation. But I am not sure that employment service counselors were trained to identify the purposes which schools or school counselors hold for such information and to work with them in securing and using it effectively. Conversely, until fairly recently, most school counselors were not themselves trained in consultative or collaborative skills. I suspect that few of them learned in counselor preparation about the legislative expectations that school counselors and employment service counselors were to work together to share labor market information and information about student skills and preparation or that employment service counselors would participate in the placement process.

A final barrier which I shall mention here has to do with professional identity. There are competency statements and preparation standards which speak to many of the points raised here but, in general, there is too little enforcement or use of them by employing agencies, accreditation groups, or preparation institutions. Beyond this, local professional groups—whether affiliated with the National Vocational Guidance Association, the American Personnel and Guidance Association, or the Guidance Division of the American Vocational Association—have not yet taken as much leadership as necessary to bring together all of the legitimate local providers of career or vocational guidance (i.e., of labor market information). Such providers in the local community would include school counselors, employment service counselors, CETA counselors, rehabilitation counselors, personnel psychologists, work experience and co-op teachers, and placement specialists. It would seem that until such persons acknowledge the mutuality of their professional identity and the supportive roles they have in common, neither the collection nor the use of labor market information in secondary schools is likely to reach the level of quality or comprehensiveness which is possible.

Overlap in the Delivery of Career Information

An obvious question is, How much, if any, overlap now exists in the delivery of labor market information in secondary schools? I would submit that in most secondary schools this is a minor problem if it exists at all. My rationale for this statement is that the persons most likely to provide

career or labor market information are school counselors, vocational education teachers, CETA counselors, employment service counselors, rehabilitation counselors, and general education teachers.

Let's discuss these persons in reverse order. General education teachers are likely to provide some career information and perhaps some labor market information if they are employed in a school which is involved in career education. Research data shows that not every school is so engaged. Where career education *is* in place, it is more likely to involve elementary rather than secondary school teachers (Herr 1977). Much of the career information used by general education teachers is likely to be in the form of examples which relate the content of a particular subject matter to occupations in which that subject matter is important to the work activity or problem-solving which takes place.

Rehabilitation counselors are likely to be involved with students ages fourteen and above whose physical, emotional, mental, or educational disabilities and their likely impact on future vocational adjustment make them eligible for legislatively defined services. Through this source, such students are likely to receive training and labor market information specific to their disability. Employment service counselors are most likely to be confined to working with the hard-to-place or the economically disadvantaged. Because of federal cutbacks in the number of employment service counselors and an expansion of the case loads for whom these professionals are responsible, too few employment service counselors are able to deal with developmental skill-building with clients or to maintain contacts with secondary school students in any continuing way (Ringsmuth & Redding 1973; Varga 1974). As Ringsmuth and Redding (1973) concluded after studying the activities of Minnesota employment service counselors, the present (real) role of these persons may not be compatible with the ideal role they prefer. In the judgment of these counselors, they should be spending more time in counseling, consulting, teaching, and research/follow-up and less time in clerical/recordkeeping activities, testing, and placement. Since the employment service counselor in most secondary school contacts deals most often with the hard-to-place or school dropouts, such counselors are likely to receive labor market information specific to immediate job availability for this type of client. However, the employment service counselor is not likely to be able to work with the secondary school student population at large.

CETA counselors and employment service counselors share many of the same restrictions. By legislative definition, CETA can work with both in-school economically disadvantaged youth and non-school youth (dropouts and others) who, by reason of sustained unemployment and economic disadvantagement, are CETA-eligible. Many of these persons are likely to be screened and referred by employment service counselors. Such youth are likely to receive some career or labor market information through career orientation and work experience programs. Vocational education teachers are likely to provide labor market information and work socialization related to the specific occupation for which students are gaining entry level skills.

Finally, school counselors provide career or labor market information to some proportion of the student population. Such information is likely to be broader than that provided by any of the other sources with the exception of general education teachers. What proportion of the student population receives career or labor market information probably varies widely from school to school. However, available data suggest that it is generally less than students, teachers, or parents desire (Kauffman 1967; Campbell 1968; Ginzberg 1971; Prediger, Roth, & Noeth 1973).

These observations do not suggest that there is no overlap in the delivery of career or labor market information to secondary school students. There may, indeed, be such overlap; but it is likely to be focused primarily on "special needs" populations rather than students not so described. Also

at issue is the quality and the comprehensiveness of available information as well as the proportions of secondary school students who receive it. The available research studies do not suggest that overlap is a problem, but a lack of career information and help in its use is a fairly consistent finding.

It is conceivable that overlaps in some aspects of career information delivery may occur as the NOICC/SOICC system extends the current career information systems from the nine states in which they are now well implemented to the other states. I say this only because such systems may come into competition with the several commercial computer-based systems now in existence. However, the degree to which such commercial systems are now used by secondary schools is not clear. Because of the costs associated with them, they are still the exception—not the rule—in secondary school guidance programs. Whether the same thing will occur because of the user fees associated with the NOICC/SOICC CIDs is, of course, yet to be determined.

As future planning and development is considered, it seems apparent that various federal and state agencies and professional organizations have complementary roles to play in the delivery of career or labor market information. However, these roles need to be defined in terms of a master plan which might include the following questions:

1. What are the outcomes which career or labor market information is expected to facilitate?
2. What are the processes by which persons attain such outcomes and the factors which thwart or negate such development?
3. How can career or labor market information be developed so that individual information-processing styles can be taken into account?
4. What preparation, competencies, and skills must be possessed by those who will facilitate the outcomes subsumed under (1) as these are mediated by (2) and (3)?
5. What is the potential impact of different systems or personnel as defined by the characteristics of the populations they have contact with—e.g., the age, the legislative entitlement, the period of exposure? What are the characteristics and constraints of the setting in which these personnel operate—e.g., are there user fees? Are such personnel or systems permitted by legislation or institutional mission to work with only certain student populations? Are there limits, explicit or implicit, on the persons or contacts which can be made?
6. What technology or media can strengthen the potential impact of the persons or system identified in (5) given the characteristics of the populations to be served?

Such a master plan would reduce the practice of pushing specialists into work for which they have no preparation. It would identify the tasks to be accomplished by different specialists or systems and clarify the fact that no particular specialist or system can operate in a vacuum but must be part of an interactive constellation of persons, information, and technology each having contributions to the final outcome desired. Given such a master plan, what organizational profiles might be appropriate?

Federal — labor. It would be presumptuous of me to define a role at the federal level for the Department of Labor which has specific components in it. It seems clear that the mechanisms are available in the Bureau of Labor Statistics, the Manpower Administration, the Employment Services and Training Administration, the Office of Youth Programs, and elsewhere in the Department of Labor to compile labor market or career information, translate it into appropriate forms, and disseminate it to those secondary school personnel who serve as intermediaries for the secondary school youth who are the ultimate consumers of such information. However, it is apparent that there is a

need to examine learning styles and purposes which are primarily educative rather than distributional in nature. Such emphases seem now to be in prototype form or beyond in the NOICC/SOICC incorporation of the OIS program. Even so, the need for labor market information, in addition to that which is now available in local terms, would appear to require extended agreements with apprenticeship councils, CETA, and private industry councils as well as some new role definitions within local employment service offices regarding the coordination of local information and the dissemination of it to secondary schools. Finally, it would seem necessary to create an inservice network designed to upgrade the awareness of local employment counselors, secondary school counselors, and other educators of the types of information available and their potential uses in the career planning and job choice of secondary school students.

Federal – education. USOE and NIE, as they are now combined into the Department of Education, have had several components concerned with the use of career and labor market information in the secondary schools, although their charge to collect and translate this information into formats usable to secondary school students has been less obvious than that of the Department of Labor. Nevertheless, at the very least, the personnel of the Bureau of Occupational and Adult Education, the Office of Career Education, and the Guidance and Counseling unit (among others) each have important direct concern about the collection, form, dissemination, and use of career and labor information by the students and the educators whom they represent. There have been agreements between agencies of the Department of Labor and several of these agencies in the Department of Education with respect to cooperation and responsibility in functions relevant to career and labor information. Such agreements should probably be assessed and strengthened as appropriate. Beyond this, however, there is a spectrum of research and demonstration efforts bearing upon basic questions of career development research, needs of "special populations," and evaluation of school or community-based career and vocational education programs. Insights into labor market information needs, availability, and use could be acquired from these research efforts if pertinent questions were posed. Some of these projects deal with education–CETA prime sponsor relationships which have particular importance for assessing labor market information needs and availability in the school-to-work transition of the economically disadvantaged and the early school leavers. Unfortunately there is no clearly defined unit at the federal education level which speaks directly to the preparation of school counselors, although those named above each have some responsibility, however vague, for that area.

It would seem apparent that federal agencies in labor and in education should consider seriously the idea of convening a national conference of counselor educators to consider the needs for, availability of, and use of career and labor market information for secondary school students. Finally, it would seem appropriate that some combination of Department of Education and Department of Labor personnel with consultative assistance from pertinent professional organizations could construct a research and development agenda, a series of legislative propositions, and a plan of action by which the use of labor market information in the secondary schools could be effectively advanced.

State – labor. In large measure, pertinent state agencies in labor or commerce must serve as the implementors of federal policy pertinent to labor market information. Clearly, such agencies must effect collaborative relationships with the state manpower and education agencies as well as with the local employment service offices, CETA prime sponsors, PICs, offices of the National Alliance of Business, and other groups who have a stake in the collection or use of labor market information in the secondary school. In order to systematically accomplish such tasks, however, a clear assignment of responsibility to some person or unit must occur. McDaniels and Nelson (1977), after conducting a national occupational information dissemination project, recommended that occupational information training specialists positions be created in each state.

> These specialists would be responsible for facilitating the development of occupational information programs in all schools throughout the state. They would also be available to present training programs and workshops for working counselors and to lecture in counselor education programs in colleges and universities. The specialists would work with counseling staff members throughout the state to solve problems dealing with occupational information that are unique to a particular setting. They would provide advice on the material available for a given clientele and suggest the most effective ways to use that material. (p. 15)

I believe that such persons are essential to the improvements in the use of labor market information discussed in this symposium. Depending upon funding, it seems that appropriately trained school counselors would be available to fill such positions. As a function of declining enrollments in some schools, well-trained school counselors are moving into CETA positions to work with the in-school population as well as the school dropout populations. A supply of such persons would likely be available for state level responsibility.

State – education. State education agencies have in many cases developed such systems as VIEW or variations such as Penn Scripts. While this is not local labor market information by definition, the information these systems provide to secondary schools for use in microfilm reader-printers has been very helpful. Such units have typically worked with state labor personnel in collecting and translating such information into VIEW formats. Thus, these people have experience in developing career information in support of or through funding by vocational education, career education, and the in-school provisions of CETA. Many of these efforts have resulted in microforms, aperture cards, or print material designed to provide career information tailored to states or regions and useful to students in secondary or elementary schools. Some state agencies have developed demonstration resource centers in which all types of information useful to student decision making is displayed. Some of these centers prepare bibliographies related to particular topics, populations, source types, or other classifications of descriptors.

Without belaboring the point, it is useful to note that some states have what might be considered dual systems of developing and disseminating labor or career market information—one housed in labor or commerce and one housed in education. Sometimes these systems work together; sometimes they are independent of each other. In any case, however, state education agencies are likely to have people in guidance and counseling, vocational education, career education, instructional technology, and curriculum design whose expertise could be used to improve the content and the delivery of labor market information to secondary school students. When these people work with the OIS or SOICC people as a team, the resulting combination of insights and technical competence can increase significantly the overall quality of labor market information available.

Unlike departments of labor, state education agencies can affect the use of labor market information in secondary schools in several indirect ways. Among these are the certification of school counselors, the approval of counselor education programs, and the setting of curriculum standards. If school counselors are not equipped to use labor market information effectively, state education agencies can change the certification standards and require such competencies. They can then require that inservice training be provided to strengthen counselor skills in such areas and require that counselor education institutions provide this type of knowledge and experience at the preservice level. Finally, state boards of education can mandate school curriculum content. They can require that such content as labor market information be included.

Professional organizations can also assist in this area. The following are several relevant professional organizations and examples of specific contributions they are making to improve the delivery of labor market information.

The National Vocational Guidance Association - Examples of pertinent activities, committees, and commissions include the following:

a. Sponsorship of National Career Guidance Week
b. Sponsorship of the National Career Guidance Week Poster Contest
c. Commission on Career Information Delivery Services which affiliates the NVGA with personnel of the National Consortium of Career Information Systems
d. Commission on Career Guidance in Business and Industry which brings the NVGA into affiliation with the Career Planning and Adult Development network
e. Commission on Preservice and Inservice Competencies for Vocational Guidance Personnel
f. Commission on Criteria for Quality Career Guidance Programs
g. Committee on Career Information Review Service
h. Committee on Nonprint Media Production and Review Service
i. Committee on Occupational and Educational Information
j. Liaison with the National Employment Counselors Association

The Association for Counselor Education and Supervision — Examples of pertinent activity include the following:

a. Development and implementation of preparation standards for counselor education programs. These standards are used by many state departments of education and by such groups as NCATE to accredit counselor education programs. Included in such standards are recommendations for core content, specialized content, and experiences pertinent to the training of counselors in different settings.
b. Provision of accreditation for counselor education programs. Accreditation can influence the training of school counselors, employment counselors, rehabilitation counselors, and related specializations.

Guidance Division, The American Vocational Association — Examples of active involvement include the following:

a. Maintenance of a range of interest groups and committees concerned with program standards for career guidance programs and career guidance competencies
b. Membership representing a broad range of career guidance specialists, professionals, and paraprofessionals in schools and other settings
c. Excellent linkages with other organizations having interest in the vocational aspects of guidance
d. Expertise in area vocational/technical schools

It might be added that each of these organizations has its own professional journal, and each has influence in a parent organization of which it is a part. In the case of NVGA and ACES, the parent organization is the American Personnel and Guidance Association; in the case of the AVA Guidance Division, the parent organization is the American Vocational Association. These parent organizations are all active in providing input to federal legislation, developing standards for counselor inservice and preservice preparation, creating criteria for quality programs, and conducting research pertinent to such concerns. Each of these organizations is also in a position to subcontract or to provide consultative assistance in areas related to the improvement of labor market information in the secondary school. Each of these organizations has local affiliates which could engage in collective action with other groups to create "grass roots" input to the development or use of labor market information.

It is worth noting that Private Industry Councils, Work Education Councils, Chambers of Commerce, Chapters of the National Alliance of Business, and other community based organizations are essentially untapped resources in labor market information development and use. How they can be effectively used in these ways is a question worthy of considerable analysis.

Recommendations

Although recommendations to improve the use of labor market information have been suggested throughout this paper, the following are in my opinion the most critical:

1. Include secondary school educators and counselors on national and state advisory committees on occupational information. Use this mechanism to insure that the content and format of career and labor market information meets not only distributional but educative purposes.
2. Identify professional organizations which are concerned about the development and delivery of career and labor market information at the secondary school and solicit consultative relationships with such groups.
3. Create selected university centers funded to study the use of career and labor market information, the comparative effects of different delivery systems, and the information requirements of special needs populations.
4. Assist existing clearinghouses on commercial and governmental information to evaluate and disseminate career and labor market information pertinent to the secondary school population.
5. Develop a national network of short-term inservice training experiences for secondary school counselors in the use of labor market and career information. Provide additional support for the emerging NOICC/SOICC Career Information Delivery Systems.
6. Convene national and state conferences designed to train counselor educators to include competency-based preparation in career and labor market information as part of school counselor preparation programs.
7. Develop cooperation between state departments of labor and state departments of education in implementing certification standards for school counselors which include the ability to use career and labor market information and the SOICC CIDs.
8. Support efforts to implement the formal agreements for school counselors and employment service counselors to share labor market information and the placement process for students engaging in career planning or entry into the labor force. Provide state and local inservice programs deliberately planned to bring school counselors and employment counselors together to consider the rationale for and the implementation of such joint action. Reinstitute opportunities for school counselors to serve during the summer in short-term roles in employment service offices.
9. Identify and bring into a cooperative relationship persons in both state departments of labor and of education with expertise in the development, dissemination, and use of labor market information.
10. Identify potential sources of localized labor market information from groups in the private sector, research and development organizations, economic and manpower planning agencies, apprenticeship councils, and other such sources which have not typically provided such information for public use.

11. Undertake an immediate study of the knowledge and skills needed by school counselors and other secondary school personnel to use labor market information. Include on this study the degree to which knowledge and skills are constant across student subpopulations. Convert such information into instructional modules which can be integrated into inservice and preservice instruction for counselors.

12. Examine the degree to which employment service counselors are competent to work with secondary school personnel and students in improving the use of labor market information. Where problems exist, create a network of training experiences designed to assist employment service counselors to understand decision-making needs of secondary school students and the purposes for labor market information use in the secondary school.

13. Examine the likely utility and use of various components of career information delivery systems to determine who will have access to them, those most likely to use them, and the probability of use of alternate forms of information delivery.

14. Identify the frequency of use of various career/labor market information classification systems by secondary schools so that new information systems can easily be interfaced with existing systems.

References

Ausmus, N.F. "Occupational Information Systems and the Department of Labor." *Journal of Employment Counseling* 14, no. 2 (1977): 54-58.

Campbell, R.E. "Vocational Guidance in Secondary Education: Selected Findings of a National Survey Which Has Implications for State Program Development." Paper presented at the National Conference on Vocational Guidance, Development of State Programs, U.S. Office of Education, Washington, DC, January 1968.

Christensen, T.E. "Functions of Occupational Information in Counseling." *Occupations*, 1949, pp. 11-14.

Driscoll, J.B., and Herr, E.L. *Professional, Technical and Kindred Workers - Where They Come From, Where They Go in the Commonwealth of Pennsylvania: Information for Student Career Planning.* University Park, PA: Department of Counselor Education, August 1976.

Ginzberg, E. *Career Guidance.* New York: McGraw-Hill Book Company, 1971.

Helwig, A.A. "Role Conflict and Role Ambiguity of Employment Counselors." *Journal of Employment Counseling* 16, no. 2 (1979): 73-82.

Herr, E.L., and Cramer, S.H. *Career Guidance Through the Life Span: Systematic Approaches.* Boston: Little, Brown & Co., 1979.

Hoppock, R. *Occupational Information.* 4th ed. New York: McGraw-Hill Book Co., 1976.

Hoyt, K.B. "Operational Goals, Policies and Functions for Guidance as Seen from the Vocational Education Amendments of 1968." *Proceedings of the National Conference on Guidance, Counseling and Placement in Career Development and Educational-Occupational Decision-making,* edited by N.C. Gysbers and D.C. Pritchard. Columbia, MO: University of Missouri, October 1969.

Kauffman, J. *The Role of the Secondary School in the Preparation of Youth for Employment.* University Park, PA: The Institute for Research on Human Resources, 1967.

McDaniels, C., and Nelson, L. "Counselors Speak Out on Occupational Information." *Occupational Outlook Quarterly* 21, no. 3 (1977): 14-15.

Mihalka, J.A. *Youth and Work.* Columbus, OH: Charles E. Merrill Co., 1974.

Norris, W., Hatch, R.J., Engelkes, J.R., and Winborn, B.B. *The Career Information Service.* 4th ed. Chicago, IL: Rand McNally College Publishing Company, 1979.

Prediger, D.J., Roth, J.D., and Noeth, R.J. *Nationwide Study of Student Career Development: Summary of Results.* Iowa City, IA: The American College Testing Program, 1973.

Ringsmuth, P.L., and Redding, A.J. "Minnesota Employment Counselor Activities." *Journal of Employment Counseling* 10, no. 1 (1973): 21-30.

Varga, F.L. "Employment Counselors' Perceptions of Clients' Needs." *Journal of Employment Counseling* 11, no. 2 (1974): 63-72.

Yabrott, W. "Learning Decision Making." In *Behavioral Counseling: Cases and Techniques*, edited by J.K. Krumboltz and C.E. Thoresen, pp. 306 319. New York: Holt, Rinehart and Winston, 1969.

TOWARD IMPROVED UTILIZATION OF CAREER INFORMATION FOR YOUTH: A PERSPECTIVE

A Reaction by Evelyn Ganzglass

My response to Dr. Herr's insightful paper is to concur with and expand on a number of themes. I was asked to respond not as an expert in career information, but as a program planner concerned with carrying out a mandate given the DOL in 1977 under the Youth Employment Demonstration Projects Act (YEDPA). This mandate is contained in YEDPA's governing statement of purpose: "to enhance the job prospects and career opportunities, and such training and supportive services as are necessary to enable particiatns to secure suitable and appropriate unsubsidized employment in the public and private sectors of the economy."

I am concerned, therefore, with the structuring of program activities that help develop employability among young people. For CETA youth programs, a youth reaches the status of being employable when he or she acquires a combination of abilities including basic academic competencies, vocational skills, work-related behavior patterns (often called life skills), and a degree of self-awareness and motivation to manage these skills for purposes of obtaining and holding a job.

This ability to think about oneself in terms of the world of work and in relation to specific occupational options is an important milestone in the career maturation process and is the purpose for which most career information programs should be undertaken.

YEDPA's target population is primarily economically disadvantaged youth. Many of them are minority. Some of them are in school, some are not; none of them have established themselves firmly within the labor market. My emphasis on this segment of the population is not to minimize the career information needs of all youth but to focus attention on the pressing need for public intervention strategies regarding this population.

For most youth, a great deal of information about educational and employment opportunities is learned during the normal process of growing up. For some youth, however, often those who live in central-city poverty areas and isolated rural areas where there are limited opportunities for work or education, access to information and role models is limited. Such youth rely heavily on CETA, career education, and other career information programs to broaden horizons and provide sufficient information with which to make career and education-related decisions. Without affirmative programs to help youth gain an awareness of themselves and the world of work, their options will be limited.

The more a youth with limited access to information and other opportunities for developing career maturity falls behind his or her peers in self-awareness, basic skills development, ability to cope within his or her community, the harder it is for that youth to overcome the accumulated deficits which act as barriers to employment. In a sense, early attention to career-related concepts and competencies, whether in school or otherwise, serve to head off more intransigent problems later as youth get older and more set in their behavior patterns.

Most youth fourteen and fifteen years old are not ready to settle down to a course of intensive skill development related to a specific job, nor are most employers willing to give such youth a chance to work at "meaningful jobs with career potential." Youth at the younger end of the spectrum, at least within CETA's age restrictions, need to explore a variety of career options and to develop a better sense of themselves and how they as individuals relate to adult roles such as work. For in school youth, school becomes a focal point for much of this activity.

As youth get older, exploration becomes more intensive and begins to focus on more specific areas of interest. Finally, as they enter their early twenties, most youth have narrowed their occupational choices, have matured, and are ready to begin career employment. Their knowledge and maturity is acquired both formally through school and other structured programs and informally through friends, relatives, and trial-and-error experiences in the labor market. All youth make decisions regarding education, career preparation, and employment whether it is deciding whether or not to drop out of school, deciding on whether to pursue the long preparatory route required to become a brain surgeon, or finding out about community resources available for child care as a first step to getting a job.

Viewed in the broader context of career exploration and career choice, virtually every type of activity undertaken within the context of youth employment and training programs is potentially relevant to a discussion of career information delivery. My intent is to look at the delivery of career information as one element in a structured employability development program.

This last fiscal year, the Employment and Training Administration spent close to $40 million on labor market information. The Bureau of Labor Statistics spent several million dollars more, and the National Occupational Information Coordinating Committee (NOICC), jointly funded by DOL and HEW, supported another $10 million of activities. Under CETA, approximately $4 million went to statewide programs of labor market information including career counseling and information. Millions more are spent annually at the local level on the provision of career guidance, counseling, and information services under CETA programs. Specifically, a nationwide survey of CETA-LEA agreements under the Youth Employment and Training Program (YETP), conducted during the winter of 1978-79, found that counseling and the provision of labor market information were among the transition services offered in at least 80 percent of all programs.

The prevalence of these activities and the massive financial commitment to their implementation obligates those of us responsible for program administration to pay particular attention to the quality of services being provided. During the past two and a half years since the passage of YEDPA we, in the Department of Labor's Office of Youth Programs, have invested approximately half a billion dollars of discretionary resources in a wide variety of research and demonstration projects to test and refine various intervention strategies that traditionally make up employment and training activities for youth: These include the delivery of career information directly or within the context of work experience, skill training, counseling, guidance, and career exploration activities. Incentive and demonstration funding has been used to develop program models, identify best practices, and so staff training and curriculum development. It has also been used to test the comparative advantage of various intervention strategies in accomplishing desired outcomes for youth. These desired outcomes and interventions differ, of course, depending on the age of youth, whether they are in or out of school, and whether or not they are in the labor market. For instance, a career information program for junior high school students would be more generalized and exploratory than one for high school juniors and seniors who are faced with the prospect of looking for full-time jobs upon graduation. And both of these programs would differ considerably from a program for nineteen- and twenty-year-old graduates of advanced skill training programs who are ready to enter full-time employment in a chosen occupational field.

Our efforts in the Office of Youth Programs have been primarily focused on helping youth better use career information in developing work related behaviors, preparing for career entry, and making decisions regarding work and education options. While we have insisted on the use of valid and appropriate information, we have left the concerns about the content and mechanisms for delivery of information to others such as NOICC.

Under our knowledge development mandate, we have implemented numerous structured experiments in this area including projects designed to help youth learn about the world of work through better use of information resources in the community, family support in job search, and early work experiences. In other projects, the Campfire Girls, YWCA, and other voluntary youth-serving agencies are implementing career exploration and employment-related education programs. Community-based organizations such as SER and the Urban League, the United States Employment Service, and others are involved in programs to provide world-of-work orientation, counseling, and coaching in developing job-seeking skills. The private sector, under the auspeces of such organizations as community education and work councils, provides opportunities for youth to visit worksites, talk to workers, and generally learn what working is all about. Some programs are classroom-based; others are experiential. Some are full-semester or year-long courses; others are short-term and focus on such activities as workshops, field trips, and career days. Teachers, counselors, parents, employers, and union representatives play different roles, but all for the purpose of increasing youth's knowledge about the world of work and how to prepare for and function in it.

My reference to these varied complementary activities is to make the point that information can be transmitted in many ways; it is not to suggest that the definition of career information services be broadened to include the full range of employability development services. Information delivery is only one of many such activities. How dependent it is on other activities is directly related to the ability of those receiving career delivery services to make effective use of the information being transmitted. Some youth are ready to use career information services without assistance; others may require extensive support and reinforcement before the information can be internalized and put to good use. In the majority of cases, information delivery cannot stand alone.

As the research continues and conceptual refinement of programs takes place, millions of dollars are spent on programs in which the counselors, teachers, and other persons working directly with youth lack basic familiarity with career information resources. If we are serious about having youth use career information effectively, we must train the staff who deliver such information. They need to know what types of information sources are available; how to select information appropriate for the youth to be served; the program context in which the information is to be used; how to structure the delivery of information so that it can be understood by users; and how to ensure that the information is reliable, up-to-date, and relevant to the community being served.

We must get those who work with youth as well as those who plan and manage the programs in which they work to understand the benefit that can be derived from using labor market, occupational, and educational information. Lastly, we must get local program deliverers, no matter which legislative authority they are funded under, to coordinate their services.

The diversity of program deliverers and special purpose programs adds strength to the nation's employability development and education system. If local program deliverers are to make the most of the breadth of expertise that exists, it is important for them to become familiar with what other programs are doing, with the people associated with these programs, as well as with the strengths and limitations of systems and the materials they produce. One way to help bring this about is to develop networks of users and producers of career information at the local, state, and national levels. This is not a new theme, but it can be done. The number of organizations and constituencies is overwhelming,

but we must begin somewhere. At the national level, systems are developed, papers are written, projects are funded, and research and evaluations are conducted in relative isolation from each other. At the state level, agencies responsible for labor market information, state departments of education, and state career information delivery systems often barely talk to each other.

With state and national leadership from the national and state Occupational Information Coordinating Committee network and participants at this symposium, local information and mutual support networks can be fostered and made viable. Let us hope that this symposium will serve to set this process in motion and help us move toward a unified career information delivery system.

RECOMMENDATIONS FOR FUTURE STUDY

By convening leaders from national, state, and local labor and education agencies, the symposium provided opportunities for both presenters and participants to make suggestions for improving and expanding the use of career and labor market information. Successful information delivery must focus on three elements: data production, information dissemination, and usage.

Improving usage, through upgraded inservice and preservice efforts, is the theme of the recommendations listed below. These recommendations have been reviewed by participants, but they should not be viewed as reflecting consensus from the total group. Instead, they are issues in one important area which need further study so that sound projects and programs can be instituted in the future.

Inservice for Guidance Personnel

Identifying Skills Needed by Guidance Personnel

To enable clients to effectively use career and labor market information, it is imperative to train the staff that delivers such information by making them aware of the types of information sources that are available and providing them with the following skills: how to identify and select information appropriate for the client to be served and the program context in which it is to be used; how to structure the delivery of information so that it can be understood by users; and how to assess whether or not the information is reliable, up to date, and relevant to the community being served.

Collaborating for Improved Training

A major long-term commitment to a consistent and well-planned career and labor market information inservice program for career guidance personnel needs to be made. This should be carried out on a planned schedule throughout a number of years. A variety of methods should be attempted and evaluated to determine which is most effective. Possible leadership could come from a consortium of university counselor education faculty, State Departments of Education, State Employment Security Agencies, State Occupational Information Coordinating Committees (SOICC), and state or regional Career Information Systems (CIS), many of which are and have been training counselors in the application of career and labor market information.

Organizing a National Training Network

The Department of Labor and the National Occupational Information Coordinating Committee (NOICC) should develop a national network which would provide for a cadre of highly interested and able counselor trainers to work with Department of Labor officials in developing a one- or two-week career and labor market information inservice program, to be held annually. Another means of

creating a rapid impact on the inservice needs of career guidance personnel would be for the Department of Labor or NOICC to engage fifteen or twenty of the best qualified career oriented counselor education institutions and have their leading faculty conduct one week workshops in three or four nearby states. Representatives of these institutions should be assembled for a comprehensive briefing, training, and planning session with the Department of Labor and NOICC.

Developing Localized Information

In an effort to provide the most useful information possible to clients, it is recommended that the Department of Labor consider redesigning the content and scope of forthcoming career and labor market information to include additional products at the local level. Should it be unrealistic to change existing delivery strategies, it is suggested that additional materials - pamphlets or other publications—be developed to meet the expressed need.

Developing Training Materials for Community-Based Counselors

Because a substantial amount of counseling and delivery of career and labor market information is conducted outside the school setting, it is suggested that special staff development programs be developed for such audiences as SOICC, community agencies, and CETA personnel. In developing appropriate materials, it is recommended that the Department of Labor develop basic materials that could be tailored or adapted to particular problems, populations, and localities. To ensure that staff development activities be ongoing, it is also recommended that community support networks be created including all agencies involved in providing career and labor market information to various clientele.

Initiating Counselor Internships

Internships are recommended to keep practicing counselors and other career guidance specialists current with changing career and labor market data and formats. State employment service staff could share information and materials with career guidance personnel to better equip them to provide information to students. Within the internship experience, learners would gain a broad exposure to the total process of developing and using career and labor market information and would acquire an appreciation of the value and uses of such data.

Improving Interaction Between Developers and Users

Career guidance personnel need to be proficient at assisting students to know how to use occupational information materials in making career decisions. Since many counselors find that career labor market information is not provided in a format that is easily used, it is suggested that each state (possibly through NOICC/SOICC or CIS) convene a workshop for both producers and users of career and labor market information. Workshops would be designed to meet the following objectives:

(1) to improve communication between producers and users;

(2) to devise plans for increasing working relationships; and

(3) to provide special methods and techniques for specific counseling agencies and settings.

Establishing Agreements Between School and Employment Counselors

It is necessary to reassert the established need for formal agreements between career guidance personnel and employment service counselors. Sharing labor market information facilitates career planning and entry into the labor force. State and local inservice programs need to be deliberately planned to bring school counselors and employment counselors together to consider the rationale for and the implementation of such joint action. Opportunities for career guidance personnel to serve during the summer in short-term roles in employment service offices should be instituted, reinstituted, and expanded.

The degree to which employment service counselors are interested and skilled to work with secondary school personnel and students in improving the use of career and labor market information needs to be examined. Where problems exist, a network of training experiences should be designed to assist employment service counselors to understand decision making and planning needs of secondary school students and the purposes for labor market information use in the secondary school.

Preservice for Guidance Personnel

Developing Curriculum Materials

In order to make career and labor market information an integral part of current and future counselor education programs, it is recommended that the Department of Labor sponsor the development of appropriate curriculum materials by national professional associations and counselor educators. A multi-year project should be launched to develop, field test, and evaluate a model program. If published by the Government Printing Office, the materials (possibly including a text, workbook, and instructor's manual) could be inexpensively produced and widely distributed.

Changing Certification

Certification of counselors and other specialized guidance personnel should be changed, where necessary, to include increased competency in career development by requiring competency-based counselor education programs. Likewise, recertification should require such programs. Cooperation must be developed between state departments of labor and state departments of education in implementing certification standards for school counselors that include the ability to use career and labor market information and the SOICC Career Information Delivery Systems. Additional impact on including such certification requirements could be made through the influence exerted by professional associations and the nation's accrediting agencies.

Conducting Workshops for Counselor Educators

Because the use of labor market information typically has not been emphasized in masters and doctoral programs, it is recommended that counselor educators and others who train users of labor market information receive special training. Special workshops and meetings sponsored by state-level Department of Labor personnel in cooperation with State Departments of Education is suggested as a viable approach.

Integrating Counselor and Teacher Education Programs

Counselor education programs need to be integrated with teacher education programs if the career guidance programs including career and labor market information are to realize their potential in the schools. Teachers and counselors must learn how they can help each other in providing career learning experiences for students.

SYMPOSIUM PARTICIPANTS

Mr. Lewis M. Abernathy, Director
Institute of Applied Economics
North Texas State University
N.T. Box 13644
Denton, Texas 76203

Mr. Robert J. Alexander, Director
Career Information Systems
National Governors' Association
444 No. Capitol St. N.W.
Washington, DC 20001

Dr. Henry Borow, Professor
Psychological Studies
Division of Social and Behavioral Sciences
General College
University of Minnesota
Minneapolis, Minnesota 55455

Mr. Richard A. Brown
Labor Economist
Utah Department of Employment Security
174 Social Hall Avenue
P.O. Box 11249
Salt Lake City, Utah 84111

Mr. Ron Bucknam
Senior Associate/NIE
National Institute of Education (NIE)
1200 19th St. N.W.
Washington, DC 20208

Elton W. Chase, Executive Director
Washington Occupational Information System
The Evergreen State College
Olympia, Washington 98505

Mr. Alfred D. Ciano
Chief, Data Systems and Analysis
U.S. Department of Labor
Employment and Training Administration
Room 13100, Gateway Building
3535 Market Street
Philadelphia, Pennsylvania 19104

Ms. Jean H. Decker
Assistant to Officer-in-Charge for
Recruitment & Administration
International Labor Office
(U.N. Specialized Agency)
1750 New York Avenue, N.W.
Washington, DC 20213

Mr. David Duncan, Director
Office of Policy and Planning
U.S. Department of Labor
601 D Street, N.W.
Washington, DC 20213

Mr. Russell B. Flanders
Executive Director, NOICC
1832 M Street, N.W.
Room 801
Washington, DC 20202

Evelyn Ganzglass
Program Officer, U.S. Department of Labor
Employment and Training Administration
Room 9208-B, Patrick Henry Building
Washington, DC 20213

Oscar Gjernes
Chief, Special Applicant Services, U.S.E.S.
Department of Labor
U.S. Employment Service
Room 8118, PH Building
601 D Street, N.W.
Washington, DC 20213

Ms. JoAnn E. Harris-Bowlsbey
Senior Counselor, Professor
Towson State University
Counseling Center
Towson, Maryland 21204

Vernice Hendon
Labor Economist
Employment and Training Administration
Division of Labor Market Information
Room 9208-B, Patrick Henry Building
Washington, DC 20213

Edwin L. Herr, Head
Division of Counseling & Education Psychology
The Pennsylvania State University
201 Carpenter Building
University Park, Pennsylvania 16802

Dr. Laurabeth H. Hicks, Director
Division of Secondary Occupational Planning
and Senior Staff Associate for Guidance
and Counseling
Department of Health, Education and Welfare
U.S. Office of Education
Room 3682, ROB 3, 400 Maryland Avenue
Washington, DC 20202

Mr. Sidney C. High, Jr.
Director of Career Education Programs
Office of Career Education
U.S. Office of Education
Washington, DC 20202

Symposium Participants, continued

Mr. Robert J. Hotchkiss, Chief
Employment Data and Research Division
California Department of Labor
800 Capitol Mall
Sacramento, California 95814

Mr. Earl T. Klein, Director
Office of Program Services
U.S. Department of Labor
Employment and Training Administration
601 D St., N.W., Room 8100
Washington, DC 20213

Mr. Carl McDaniels
Program Area Leader
Counselor Education
Virginia Polytechnic Institute and
State University
Blacksburg, Virginia 24061

Mr. Sam A. Morgenstein
Program Director
Interstate Conference of Employment
Security Agencies
444 N. Capitol Street N.W.
Washington, DC 20001

Mr. Demetrius T. Moutsanides
Regional Economist
Employment and Training Administration
U.S. Department of Labor
909 1st Avenue
Seattle, Washington 98174

Mr. Alan Moss
U.S. Department of Labor
Employment and Training Administration
Division of Labor Market Information
Room 9208-B Patrick Henry Bldg.
Washington, DC 20213

David B. Orr, Chief
Systems Design and Analysis Branch
Division of Postsecondary & Vocational
Education Statistics
National Center for Education Statistics
Room 3073-C, ROB No. 6
400 Maryland Avenue, S.W.
Washington, DC 20202

Deborah E. Perlmutter, Director
Metropolitan Guidance Information System
NYC Board of Education
110 Livingston Street
New York, New York 11201

Neal Rosenthal, Executive Director
Division of Occupational Outlook
Bureau of Labor Statistics
Room 2913
441 G Street, N.W.
Washington, DC 20212

Donavon R. Steward
Ass't. Administrator for Research and Statistics
Oregon Employment Division
875 Union St., N.E.
Salem, Oregon 97311

Phyllis Stowers
Associate Educational Development Specialist
Appalachia Education Laboratory
P.O. Box 1348
Charleston, WV 25325

Mr. Todd Strohmenger
Educational Development Specialist
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325

Ed Whitfield
Director of Career Education
6401 Linda Vista Road
San Diego County Dept. of Education
San Diego, CA 92111

David Winefordner
Director, Division of Career Guidance
Appalachia Educational Laboratory
P.O. Box 1348
Chareston, WV 25325

John Bailey
APGA Board of Directors
Dept. of Counseling and Personnel Services
College of Education
University of Nevada
Reno, Nevada 89557

Roger Lambert, Director
Wisconsin Career Information System
Room 964, Education Science Bldg.
Madison, Wisconsin 53706

Jerry Olson
California Regional Career Guidance Center
11231 River
Downey, CA 92042

Marilyn Jacobson
Adult Career Advocates Program
Northwestern University
Evanston, Illinois 60201

Symposium Participants, continued

Debbie White
Institute of Applied Economics
North Texas State University
N.T. Box 13644
Denton, Texas 76203

Bruce McKinlay, Director
Oregon Career Information System
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403

Robert J. Swan
School of Education
California State University
Long Beach, CA 90840

Francis Macy, Director
National Center for Educational Brokering
National Manpower Institute
1211 Connecticut Ave., N.W.
Washington, DC 20036

Dick Hiett
DOL/ETA
Att 9T6B4-A
San Francisco, CA 94102

☆ U.S. GOVERNMENT PRINTING OFFICE : 1980 O - 320-886