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ABSTRACT

An Indiana project was designed to secure information necessary for defining and integrating components of an exemplary system for vocational education student recruitment and selection. The exploratory phase of the study involved an investigation of the definitions and processes of vocational education student recruitment and selection. It included literature reviews, an experience survey of vocational counselors and advisors in Indiana's secondary and postsecondary schools, and a survey and analysis of exemplary state practices. The descriptive phase of the study addressed prevailing practices and opinions concerning vocational education student recruitment and selection in Indiana. A mail survey instrument was administered to all of Indiana's area vocational technical schools and the thirteen regional campuses of the Indiana Vocational Technical College System. Data from the two phases, combined with information from literature reviews, were incorporated in the design and development of a schema for recruitment and selection of vocational education students. (This schema is presented in a companion document--see note.) (The mail survey instruments are appended.) (YLB)

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Final Report

VOCATIONAL EDUCATION STUDENT RECRUITMENT, AND
SELECTION PRACTICES IN INDIANA:

Methodology and Findings

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ABSTRACT

Purpose. The primary objectives of this project were: (1) to review the professional literature to ascertain the nature and scope of practices in use in Indiana and other states to recruit and select students for vocational education programs, (2) to design, administer, and analyze a mail survey instrument to document and describe vocational education student recruitment and selection practices in Indiana, and (3) to design and disseminate a schema for the recruitment and selection of students for vocational education programs.

Procedures. The research was primarily exploratory and descriptive. An investigation of the definitions and processes of vocational education student recruitment and selection was conducted via literature reviews, experience surveys, and a survey and analysis of exemplary practices. The descriptive phase of the study was built upon this exploratory work. A mail survey instrument was administered to all of Indiana's area vocational technical schools and the thirteen regional campuses of the Indiana Vocational Technical College System.

Products. This final report contains information gleaned from literature searches and surveys as well as background material and methodological explanations. An accompanying report under a separate cover presents a schema for the recruitment and selection of students for vocational education.

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I. BACKGROUND INFORMATION AND THE PROBLEM

Introduction

It is a truism of labor market studies that most job information is spread by word-of-mouth. Most matching of available people and available jobs takes place informally as information is spread by family and friends.¹ Often, a similar process dominates the matching of available students and available openings in vocational education programs. Students seek vocational education programs, or are sought as potential enrollees, on the basis of informal and sometimes segmented information.

Career planning as a recruiting and selection device for vocational education students has been lacking. Career orientation and planning are treated as something apart from vocational education. Students and vocational education personnel are often disappointed in one another because they have failed to recognize that choosing an occupation and learning an occupation are inseparable parts of the same process.²

In the absence of effective vocational planning, many young people enroll in vocational education programs for the wrong reasons. Some elect vocational education when a choice is forced upon them at the time they enter high school. They are required to choose among the so-called college entrance curriculum, the general curriculum, and the vocational curriculum. Some have a dislike for school and the

studies it requires. They believe that vocational education is a way to escape academic demands. Probably the most common reason for a student entering vocational education is a determination by teachers and counselors that he or she is not "college material". This gives rise to the too familiar college/noncollege bound syndrome that is accepted by so many educators.³

Many vocational educators believe that students selected for their individual programs can and should be chosen on the basis of their potential for success in the occupation being taught. They believe that there should be a reliance on aptitude tests, interest inventories, personality traits, and indicators of general scholastic ability for the selection process. Some vocational educators are beginning to recognize that the process of vocational choice is long and complex and that there are no reliable means for predicting aptitudes or the potential for success in particular occupations. Questions regarding what motivates an individual toward learning are complex. The desire to learn often springs from the conviction that the learning will lead to some desired individual goal. Therefore, it can be assumed that vocational education can best meet the needs of those whose career goals are well formulated.⁴

The nature of vocational guidance is well described by Willis Dugan as the process of helping an individual to understand accurately both himself and the world of work.⁵ This is a dynamic and ongoing process that assumes that an individual makes a vocational choice through a series of experiences and resultant decisions over a period

of years. Effective vocational choice is rooted in the values and goals of the individual with a basic element being the linking of present actions to future goals.⁶

The average youngster is directly exposed to few occupations. During the socialization process it is learned that some types of occupations are desirable and others are taboo. Therefore, in attempting to relate self-characteristics to various occupations, the typical student has few alternatives through which to sort. In trying to remedy this situation, the schools have sought means to introduce students to a variety of occupations. This interaction usually takes the form of exposure to some form of occupational information.⁷ Various possibilities exist for the storage, retrieval, and dissemination of occupational information. These possibilities for occupational information acquisition must be planned and delivered in light of an accompanying system that helps students apply the information to their personal characteristics.⁸

In recruiting and selecting students for vocational education programs, school personnel have a two fold responsibility. First, the individual student must be assisted in making vocational choices that help to attain self-fulfillment as well as occupational success and satisfaction. Second, the schools are charged with helping to maintain a balance in society between labor supply and demand so as to make optimum use of human resources.⁹

Effective vocational counseling must include individual interview techniques as well as group counseling procedures. Assistance is

needed for a variety of populations. The prospective school dropout, the noncollege bound student, the handicapped student, the college bound student, the out of school youth, and the adult all represent targeted populations that need assistance in selecting and preparing for an occupation.¹⁰

A final area of concern regarding the recruitment and selection of students for vocational education programs is best exemplified by the 1974 Government Accounting Office (GAO) report regarding vocational education.¹¹ In visiting several states, the GAO noted barriers that have restricted access to training and subsequently employment for many groups of individuals. Several of the more visible obstacles included age, sex, artificial entrance requirements, and school scheduling. The GAO report strongly suggested that assistance be given to the states and their localities to identify and implement strategies to eliminate or dissipate barriers which inhibit the improvement or expansion of vocational programs and restrict persons from fully participating in such programs.¹²

As noted previously, several conditions point to the need for a more careful examination of methodologies and criteria employed in the selection of students for vocational education programs. First, vocational education institutions are facing both a shrinking supply of federal dollars and a federally mandated directive via the 1976 Vocational Education Act to demonstrate program effectiveness.¹³ As a result, vocational educators are seeking more adequate assurances that students selected to participate in their programs will be successful

both during the tenure of training and after program completion. Second, experiences of failure and frustration by students who are unsuccessful in vocational education programs make it incumbent upon vocational counselors and other professional personnel involved in student selection to adopt strategies that will minimize "false acceptances" and allow for the recycling of students into other, more suitable vocational education programs. Finally, recently enacted United States Office of Civil Rights (OCR) Guidelines call for the development of an unbiased system of open choice for all vocational education students.¹⁴ Conflicts inherent in attempts to meet students' needs, as mandated in the OCR Guidelines, while simultaneously attempting to serve labor market needs, as mandated in the Vocational Education Act, are most notably manifest in the development of vocational education student selection strategies.

Methods currently available for converting multiple guidance data to indices which can be used for vocational education student selection are discussed below. Several roles for appraisal in vocational guidance and selection are first discussed as a backdrop to the presentation of the selection models. Following the review of the models, the section concludes with an evaluation of the status of vocational education student selection in view of limitations and restrictions presented in the OCR Guidelines,¹⁵ the Vocational Education Act,¹⁶ and the Uniform Guidelines on Employee Selection Procedures.¹⁷

The Role of Appraisal in Vocational Guidance and Selection

In vocational guidance and counseling, student appraisal can serve several roles. Vocational appraisal can be used for description and diagnosis. Through the use of intelligence, personality, and aptitude tests as well as interest inventories administered in both cross-sectional and longitudinal fashions, personal descriptions or profiles can be generated. These same tests and inventories can be used to identify or to diagnose problems or difficulties in career development and decision-making. In these ways, test information can be used to enhance a student's self-understanding as a foundation for future coping with career development tasks.¹⁸

In addition to this clinical use of testing in vocational guidance and counseling, vocational appraisal for the purposes of decision making is also possible. The relatively recent appearance of several instruments (e.g., The Career Maturity Inventory,¹⁹ The Cognitive Vocational Maturity Test,²⁰ The Career Development Inventory)²¹ which provide data on the processes of career choice have helped career counseling to focus on decisional and developmental matters. Within this form of vocational appraisal, testing is a means of determining a student's readiness for career choice and planning as well as for assessing his or her level of vocational maturity. Whereas traditional test-oriented career counseling focuses almost exclusively on choice content (i.e., which occupation would this student be most suited for?),

vocational appraisal for decision-making is concerned with how career choices are made.²²

Another role for vocational appraisal links vocational testing with the processes and activities of career exploration. Proponents of this view argue that test information on personal characteristics (e.g., intelligence, age, aptitude, interest, etc.) as they relate to various career choice options is a necessary, but not sufficient condition for optimizing career development.²³ Thus, tests should be used in career guidance to: stimulate, broaden, and provide focus to career exploration; stimulate exploration of self in relation to career; and provide "what if" information with respect to various career choice options. This approach emphasizes an exploratory versus a descriptive, predictive, or problem-solving application of testing.

A final role for vocational appraisal in vocational guidance and counseling is that of student selection. The use of standardized tests as tools in the selection of students for vocational education programs demands of these tests their ability to predict success or failure with minimum risks to the educational institution and to the students involved. Underlying the use of tests as tools for the selection of vocational education students is the principle that predictor variables are related to criterion or outcome measures. The effectiveness of a test to predict or distinguish between successful and unsuccessful applicants for a program depends upon the strength of the relationship (correlation) of the test scores with the outcome measure(s). Typically, in vocational education programs, predictor

variables such as scores relating to aptitude, achievement, interest, personality, school grades, expressed interests, or teacher ratings are correlated with such outcomes as achievement in a program (grades earned), program completion rates, or various student characteristics. The following section examines selection strategies or models for capitalizing on the relationship between these predictors and outcome criteria.

Vocational Education Student Selection Models

A most useful framework for classifying selection models is offered by Goldman.²⁴ He discusses the transformation of data into information relevant to vocational guidance and counseling via the construction of statistical bridges. In the context of vocational education student selection, these bridges are the actuarial means of linking available data such as test scores or school grades with an interpretation of the meaning of these data for selection decisions. Three types of statistical bridges are important in these regards: normative, regression, and discriminant.

Normative Bridges

The normative bridge involves the direct comparison of an applicant's raw or standardized score with some table of norms. Where only one test is used, the examinee's score is compared with the norm group score. The selection decision is made on the basis of a cutoff score. Examinee's exceeding the cutoff score are admitted to the training program, those scoring below the cutoff score are not. It is

rarely the case that a single instrument is capable of detecting large enough differences between successful persons in different vocational education programs to enable it to stand alone as an effective selection tool. Therefore, a battery of several subtests is usually employed. Cutoff scores again are used as the means of selection. However, with multiple tests, an examinee's profile of scores is compared with the profile of scores of the norm group. Generally, a minimum cutoff score is established for each test. Every individual who falls below a minimum score on any one of the subtests is rejected. Only those examinees who reach or exceed the cutoff scores on all tests are accepted.

The normative bridge is generally regarded as an incomplete statistical bridge,²⁵ and several limitations are inherent in its use as a selection tool.²⁶ First, it is considered incomplete because it only permits an estimate of an examinee's standing within a particular normative group and does not indicate the implications of this standing. In other words normative data do not allow one to answer questions related to chances for success or similarities to specific reference groups. One cannot assume that the higher the score in comparison with the norm group, the better. For example, Goldman points out that more information than that contained in a table of norms is needed to conclude that a 90th percentile score versus an 80th percentile score on a mechanical comprehension test is better for mechanical training.²⁷

Second, the specific population to which the norms apply may not be similar to the population to which the test is administered. The

success of a normative bridge is predicated on the assumption that the normative sample represents a useful basis for comparison. More often than not, instruments used in a vocational education student selection strategy have been normed and validated for purposes other than vocational education student selection.²⁸ Ideally, each test considered for use in a selection strategy should be based on locally developed norms.

Third, as the number of variables or scores on subtests within a battery increases and/or as the variability in examinees' profiles increases, it becomes increasingly difficult to interpret profiles. In other words, how does one determine when an examinee's profile differs significantly from that of the norm group? Decisions establishing multiple cutoff points also become more difficult to make as the number of scores on the battery increases. If a composite score method (combining subtest scores by assigning weights to each score) rather than a multiple-cutoff score method is used, it becomes exceedingly difficult to determine which of the various subtests or variables are most important and to decide how these scores should be weighed.

Related to this issue of profile interpretation, is a fourth problem with normative bridges, namely, that reliance on a multiple-cutoff selection strategy is open to question. Specifying minimum cutoff scores that must be met for each subtest within a battery does not allow for compensatory qualifications (i.e., a deficiency in one skill may be compensated for by outstanding ability in another skill).

Few studies have been conducted indicating which aptitudes are or are not compensatory for given types of vocational preparation.²⁹

In sum, the normative bridge is of questionable value as a means of selecting students for vocational education programs. While very few studies have been conducted demonstrating the use of this bridge in vocational student selection, it is disappointing to see that in practice, vocational counseling is often based on normative data.³⁰

Regression Bridges

Regression bridges are sometimes the method of choice in the interpretation of tests used for vocational education student selection. These bridges attempt to predict relative chances of success in a chosen vocational education program usually by means of prediction equations or expectancy tables. Generally, when used for vocational education student selection, these bridges relate junior high school data such as grade point average, previous coursework, and test scores to predictors of success in senior high school vocational education programs.

Literature reviews conducted by Patterson in 1956,³¹ Ghiselli in 1966,³² Prediger, Waple and Nusbaum in 1968,³³ and Stock and Pratzner in 1969³⁴ all relate to the issue of prediction of student success in vocational training programs.

Patterson's review led him to the following conclusions:

1. Certain tests and certain types of tests consistently show significant relationships to success in vocational training courses as measured by course grades or ratings of performance in class. Tests of verbal ability, general intelligence, visualization (spatial relations), mechanical experience, and

arithmetic or mathematics have shown significant relationships with success in vocational education courses.

2. Various levels of vocational training (i.e., different vocational programs) may vary in requirements but, in general, various trades require similar abilities.
3. It should be possible to select a battery of tests which would combine to yield fair predictions of success in vocational education programs. The battery might consist of a verbal intelligence test, a test of mechanical information/experience, and a test of spatial ability.³⁵

It should be noted that at the time of Patterson's review, no work had been done on the use of interest testing in prediction, and that he reports only ~~one~~ study that investigated the relationship of biographical factors to success in vocational program training.³⁶

Ghiselli's review of the validity of aptitude tests for predicting success in vocational training and on-the-job proficiency led to the following important discoveries:

1. Training criteria are relatively more predictable than on-the-job proficiency.
2. In general, abilities and traits which were important predictors of success in training were not very similar to those which predicted success in performance on-the-job. It appears that ability and trait requirements for training programs have some generalizability across jobs, while those abilities and traits required for job proficiency are job specific.
3. The average correlation for predicting training success and job proficiency for all occupations was .14. Some differential predictability by program area is evident in the following average correlations for predicting training success and on-the-job performance: For clerical occupations, .39; for trades and crafts, .17; for industrial occupations, .20.³⁷

Prediger, and his colleagues examined predictors of grade point average in vocational programs in 38 studies conducted between 1954 and 1967.³⁸ Evidence of differential predictability is shown below with the two best predictors for each of 11 vocational education programs presented.³⁹

<u>Program</u>	<u>Predictor Variables</u>	<u>r</u>
Auto mechanics	Nonverbal intelligence	.23
	Mechanical	.23
Carpentry	Mechanical	.27
	Spatial aptitude	.24
Drafting	Spatial aptitude	.42
	Verbal intelligence	.39
Electricity	Spatial aptitude	.34
	Achievement test data	.24
Machine shop	Mechanical	.44
	Nonverbal intelligence	.43
Industrial arts	Nonverbal intelligence	.33
	Verbal intelligence	.30
Business education	Arithmetic reasoning and computation	.48
	Achievement test results	.46
Bookkeeping	Verbal intelligence	.44
	Achievement test results	.39
Shorthand	Grade point average	.56
	Specific purpose aptitude tests	.51
	Achievement test results	.51
Typing	Specific purpose aptitude tests	.38
	Achievement test results	.36
Home economics	Nonverbal intelligence	.46
	Arithmetic reasoning and computation	.44

This evidence seems to indicate that certain predictors are more useful in some vocational education programs than in others. Such a finding is contrary to the previously discussed conclusion reached by Patterson.⁴⁰

Stock and Pratzner examined predictors of success in high school, post high school, and adult vocational technical education programs. Their classification scheme organized studies into three groupings according to the following principal dependent variables or outcomes: (1) achievement studies using grade point average, standardized tests, and/or teacher ratings or tests of program or course achievement; (2) completion studies where the principal outcome was completion of a program or course of study; (3) related student characteristics studies where the outcome or criterion measure was training and/or occupational preferences, interest, or other measures not classifiable as achievement or completion. Their review concluded with the following observations:

1. Aptitude testing alone is not the whole answer to the problem of student selection or the prediction of success. Other variables such as interest and motivation act to influence student behavior in vocational education programs.
2. The value of a given test as a predictor may change over time. What is an effective predictor in the initial stages of training may be of little value in the later stages of training and of little value as a predictor of success on the job.
3. The best predictors of future performance in vocational training programs are intellectual measures of cognitive ability such as IQ, reading, and arithmetic and/or measures of past achievement in solid subjects such as English and mathematics.

4. Few studies report whether the regression equations and/or predictors identified through regression equations were actually adopted and successfully utilized in student selection.⁴¹

Several more recent studies have demonstrated a growing concern with the applicability of selection models or strategies to actual problems faced by vocational counselors in school settings. For example, Herr⁴² and Kapes⁴³ have attempted to develop regression and discriminant bridges from data available in cumulative junior high school records for students seeking to enroll in Pennsylvania area vocational education schools. Perry has gathered Differential Aptitude Test scores on more than 2,600 junior high school students who later entered Minnesota area vocational schools in an effort to provide area school counselors with reliable prediction data.⁴⁴ A similar study was conducted by Hanners and Bishop using the General Aptitude Test Battery for students in a Missouri area vocational education school.⁴⁵

Wircenski⁴⁶ as well as Wircenski and Hyde⁴⁷ report on the development of Hyde scales being used for vocational education student selection in several Indiana area vocational education schools. This method of student selection aims to improve on the use of normative data by providing a prediction of student job placement upon completion of vocational education programs. Hyde scales are an attempt "to objectively record and relate variables used by guidance personnel and vocational teachers in the evaluation of (vocational education) students."⁴⁸

In general, it can be concluded from studies dealing with the prediction of vocational education student success that specific

predictions are largely inefficient and that generalizable results are scarce. It appears as though cognitive measures are better predictors of success when the criterion measure is achievement in vocational education programs, but that noncognitive predictor variables appear to be as useful in prediction when the criterion is completion or persistence in the program.

Discriminant Bridges

Discriminant bridges permit the simultaneous comparison of an individual with two or more groups. These bridges attempt to answer questions regarding which vocational education program may be appropriate for an individual by providing estimates (probabilities) of a person's membership as it relates to similarity to a given group rather than estimates of his/her relative success in that group.

In the preceding section, prediction was discussed as the appropriate technique to use when dealing with a single criterion such as achievement, persistence, or completion. In such cases, correlation/regression models provide predictions of the probable degree of success should a particular vocational education program be pursued. However, when the criterion is membership in one or the other of two or more distinct vocational education program areas, multiple discriminant analysis is appropriate. As explained by Tiedeman, Rulon, and Bryan, the discriminant model is intended to provide an indication of a student's similarity to characteristics of persons already pursuing various vocational program options.⁴⁹

Few examples of discriminant analysis applied to vocational education student selection are available. An excellent discussion of the development of the method is given by Rulon, Tiedeman, Tatsvoka, Langmuir.⁵⁰ This work provides a detailed rationale underlying the use of discriminant analysis as well as similarity score procedures and graphical solutions to the profile problem. However, its focus is on the geometry of the statistical procedures involved in the method and not on test interpretation applications. Cooley and Lohnes discuss a particular type of discriminant analysis used to develop estimates of similarity to groups called the maximum likelihood procedure.⁵¹ This procedure provides probabilities that take into account the relative degree, rather than absolute amount, of a potential enrollee's similarity to each of the criterion groups. This too is a fairly technical discussion that may be elusive to many practitioners.

Pucel elaborates on the logic of the method and its application to vocational education student selection. He explains that the method is based on the assumption that persons who have the highest probability of success in a given occupation are those who are most similar to the average successful person in that occupation. Therefore, one will predict which persons will be successful in a given occupation correctly most often if one predicts on the basis of the average or most typical person who is actually successful in that occupation. Pucel goes on to explain, by means of a simple example, how one might actually construct centour scores or a similarity score profile utilizing two predictor variables.⁵²

Prediger discusses a two-stage strategy to facilitate career exploration using both similarity scores developed via discriminant analysis and success estimates developed with regression models.⁵³

In a later article, Prediger indicates that the goal of the discriminant model as he would apply it is not to find a perfect match (of student and vocational education program), not to predict membership or to estimate degree of success, but to say to the prospective enrollee, "look, here are some options. . .that attract people who are similar to you in several ways. You may want to check into them."⁵⁴

Though not yet widely tested, it appears that the discriminant analysis model has promise both as a method for vocational education student selection and as a means of facilitating the processes of career exploration and development. The latter use of this model may prove to be extremely important as the following discussion will show.

The Status of Vocational Education Student Selection

In the best of all possible worlds, the process of vocational education student selection would capitalize on student abilities, interests and motivations, as well as serve labor market needs. In the real world, however, these two goals are sometimes incompatible. Selection based on labor market needs alone may maximize institutional effectiveness but not meet the needs and/or interests of all students. On the other hand, selection driven largely by student interests and motivation would ignore the realities of the labor market that dictate the availability of jobs and openings for further training. Compromise strategies are thus usually adopted by vocational education institutions.

Yet, the development of compromise strategies has been made even more difficult in view of the regulations in three recent pieces of federal legislation: the Vocational Education Act,⁵⁵ the OCR Guidelines,⁵⁶ and the Uniform Guidelines on Employee Selection Procedures.⁵⁷

The 1976 Vocational Education Act clearly directs vocational education programs to serve the needs of the labor market. As the following shows, vocational education programs are to be evaluated in terms of the labor market performance of their graduates.

Each State shall evaluate, by using data collected, wherever possible, by statistically valid sampling techniques, each such program within the State which purports to impart entry level job skills according to the extent to which program completers and leavers--

- (i) Find employment in occupations related to their training, and
- (ii) Are considered by their employers to be well-trained and prepared for employment.⁵⁸

To maximize the chances that its graduates will meet these two requirements, vocational education schools would most likely seek selection strategies that predict post-training performance with a minimum of "false acceptances". This, in and of itself, is a most difficult task, as the discussion of regression bridges indicated. Yet, even if a highly successful regression bridge could be developed, it is questionable whether such a bridge could be legally implemented given the OCR Guidelines.⁵⁹

The OCR Guidelines are intended to eliminate discrimination and denial of services in vocational education programs. They include

regulations specifically addressed to vocational education student recruitment and selection. A brief review of the regulations pertaining to admissions criteria and the prediction of success is given below.

1. Admissions criteria

Criteria for admissions (including past academic performance, records of disciplinary infractions, counselors' approval, teachers' recommendations, interest inventories, high school diploma and standardized tests) must be validated as essential to participation in a given program.

Prerequisite courses for admission to a vocational education program may be required only if evidence can be given that this prerequisite is essential to participating in the vocational education program.

If a program disproportionately enrolls male or female students, minority or nonminority students, or handicapped students, schools must take steps to ensure that the disproportionate enrollment does not result from unlawful discrimination in counseling activities.

2. Prediction of success

Counselors must not direct or urge any student to enroll in a particular career or program, or measure a student's prospects for success in any career or program based upon the student's race, color, national origin, sex or handicap.

Counselors must provide the best possible information about alternative programs available as well as help students discover their aptitudes and interests.

Information provided about both programs and student characteristics may not result in systematic exclusion of any group for reasons not legitimately related to the requirements of the vocational program.⁶⁰

This brief look at the OCR Guidelines reveals at least two important factors that must be considered in the development of selection strategies.

First, the OCR Guidelines call for the use of unbiased measures of aptitudes and interests. The need for such measures cannot be disputed; however, their availability is open to question. Discussion of sex-bias and cultural-bias in vocational counseling instruments is beyond the scope of this paper.⁶¹ Appropriate measures are being developed. What seems likely in view of this regulation is the need for counselors to adopt several types of aptitude and interest measures that may differ for different types of students.

Selecting unbiased instruments may not be nearly as difficult a task as validating selection instruments. According to Kapes and Greenwood a bigger problem may well be:

. . .obtaining validity information concerning the relationship between (test) scores obtained and success in training on the job. The most obviously expected relationships between aptitude and interest on one hand and success on the other hand may not really exist when put to the test of empirical evidence. Added to this problem is the questionable validity of many of the other attributes often used to help make decisions about who gets into an oversubscribed program. Some of these include: grades, attendance, past achievement, teachers' recommendations, attitude, and numerous other nebulous and difficult to measure characteristics.⁶²

The use of tests in employment selection is very similar to their use in vocational education program selection. A third set of federal regulations that are particularly relevant to the development of instruments for the purpose of vocational education student selection are the Uniform Guidelines on Employee Selection Procedures. The Uniform Guidelines represent consensus among the Civil Service Commission, the Equal Employment Opportunity Commission, the Department

of Justice, and the Department of Labor on issues related to establishing the validity of tests used in employee selection procedures. The regulations in the Uniform Guidelines are intended to represent professionally accepted methods for demonstrating whether a selection procedure validly predicts or measures performance for a particular job. Several of the key definitions that are part of the Uniform Guidelines and that are of particular relevance to vocational education student selection are listed below.

1. Unfairness of selection procedure (differential prediction): A condition in which members of one racial, ethnic, or sex group characteristically obtain lower scores on a selection procedure than members of another group, and the differences are not reflected in differences in measures of job performance.
2. Content validity: Demonstrated by data showing that a selection procedure is a representative sample of important work behaviors to be performed on the job.
3. Criterion-related validity: Demonstrated by empirical data showing that the selection procedure is predictive of or significantly correlated with important elements of work behavior.
4. Construct validity: Demonstrated by data showing that the selection procedure measures the degree to which candidates have identifiable characteristics which have been determined to be important for successful job performance.⁶³

The definitions of validity contained in the Uniform Guidelines have clear implications for any tests used to select students for vocational education programs. Both the OCR Guidelines and the Uniform Guidelines are quite similar in their intent to eliminate the adverse impact of testing in selection procedures.

The implications of these three sets of rules and regulations for the practice of vocational education student selection are staggering. The development of an unbiased system of open choice promulgated in the OCR Guidelines appears to call for paying increased attention to the facilitation/stimulation of career exploration. Prediger's proposed use of the discriminant analysis model seems particularly appropriate here.⁶⁴ Such a model of directed student choice may actually benefit career development if it allows freedom to change programs as desired. However, as is clear from the Vocational Education Act (VEA), vocational education programs are not designed for this type of exploratory activity. The VEA mandates that students be placed in occupations related to their training and it seeks evidence of employer satisfaction with program completors.⁶⁵

The path out of the dilemma of simultaneously serving the mandates in the VEA and the OCR Guidelines is far from clear. Unbiased measures of aptitudes and interests are not yet widely in use. Selection methods based on Hyde scales, profile scores, and the like tend to be objective in their application and thus may help to eliminate bias in selection. However, all of these methods rely on information for which validity data are often not available. Discriminant analysis builds validity into the construction of centour scores; however, as noted earlier, the methodology of instrument construction is complex. Allowing unlimited enrollment in all vocational education programs is both costly and often impractical. Given these limitations, Kapes and Greenwood suggest that where the availability of training openings is exceeded by the number of applicants,

a lottery method may be the fairest way of solving the selection problem.⁶⁶ Yet, such a method would hardly serve to maximize institutional effectiveness as measured by the VEA.

In view of these considerations, it appears that at present, vocational counselors and other vocational education professionals involved in student selection would do well to attend to the following efforts:

1. Seek to eliminate arbitrary and discriminatory judgment in selection procedures.
2. Build an individual model of program comparisons for each student, letting the model develop from the facts about that student rather than forcing facts to fit a preconception of the type of person suited for a particular program.⁶⁷
3. Be thoroughly familiar with tests used.
4. Be thoroughly familiar with the requirements and conditions of the various vocational education programs.
5. Have a thorough knowledge of occupations and their requirements for which the vocational education programs are considered to be preparation.
6. Study one's self as an interpreter--check the rate of success and failures to determine biases.
7. Consider the use of selection tests in terms of their "bandwidth". Rather than using "narrowband" instruments which yield an intensive assessment of a specific limited area of concern, choose "wideband" instruments that aid in the collection of information on a wide variety of personal characteristics and that are useful in relating personal characteristics to career and training program options.⁶⁸

II. STATEMENT OF THE PROBLEM

A variety of methods and criteria can be employed in the processes of recruiting and selecting students for vocational education programs. In some instances, students themselves through scheduling decisions provide the main impetus in these processes. In other instances, school personnel may actively recruit and then select specific students for specific programs. In either case, recruitment activities and selection methods may be fueled by information that is limited and relatively unreliable. In other instances information may be extensive and quite reliable. In some school settings, student recruitment and selection practices may be consistent and systematized; in others, practices may vary from day to day, program to program, and student to student.

The nature and extent of vocational education student recruitment and selection as practiced in Indiana's vocational education schools was unknown. It was assumed that some means for attracting students to vocational education programs must be employed. In instances where more students were seeking entry into vocational education programs than could be accommodated, it was believed that some method for rejecting some and accepting others must be used. Furthermore, even in situations where student demand for vocational education programs did not exceed enrollment capacity, it was felt that some type of admissions process might be utilized.

To eliminate this knowledge void and to secure information necessary for defining and integrating components of an exemplary system for vocational education student recruitment and selection, the following project objectives were established:

- Ascertain the state of the art as well as practices in states other than Indiana for recruiting and selecting students for vocational education programs.
- Discover and describe the vocational education student recruitment and selection practices in use in Indiana.
- Synthesize theoretical and empirical studies and thereby develop a rationale for and description of critical components in a vocational education student recruitment and selection schema.
- Design and develop a logical framework for integrating the components of a vocational education student recruitment and selection schema.

III. METHODOLOGY

The general design of the project falls within the realms of exploratory and descriptive research.⁶⁹ In exploratory, or formulative studies, the major emphasis is on the discovery of ideas and insights. The research design must, therefore, be flexible enough to permit consideration of many different aspects of a phenomenon. Two purposes are commonly offered for descriptive studies: (1) to portray accurately the characteristics of a particular individual, situation, or group; and (2) to determine the frequency with which something occurs or with which it is associated with something else.⁷⁰ Major considerations in the design of research serving these purposes is accuracy and comprehensiveness. In the collection of evidence or information, bias must be minimized and reliability maximized.

Exploration of the definitions and processes of vocational education student recruitment and selection was conducted in the following ways:

- A review of the literature was undertaken on a number of topics. In addition to searching for previous work specifically related to recruitment and selection models and practices, inquiries were launched into theoretical and empirical work in career development theory, career guidance systems, and the impact of the labor market on vocational education. It was the opinion of the research team that this broad inquiry would generate important variables as well as establish a firm foundation from which to view the processes of recruitment and selection.

- An experience survey of selected vocational counselors and administrators in Indiana's secondary and postsecondary schools was undertaken through semi-structured interviews to establish parameters, define terms used in practice, and generate questions for a mail survey instrument. This survey included collecting and analyzing relevant school documents on admissions and selection policies and gathering recruitment literature.
- A survey and analysis of exemplary vocational education student recruitment and selection practices in other states, as well as projects in Indiana, was conducted to obtain a clearer picture of the state of the art and to generate ideas for the design and development of a vocational education student recruitment and selection schema.

The descriptive phase of the study was built upon this exploratory work. It addressed prevailing practices and opinions concerning vocational education student recruitment and selection in Indiana. Two populations were identified to be surveyed for this purpose: the 38 secondary level area vocational education schools in Indiana and the 13 regional campuses of the Indiana Vocational Technical College (IVTC). Mail survey instruments were prepared and 1 was used with the area vocational education schools and the other with IVTC institutions. Each instrument contained approximately 31 items divided among 5 general categories: demographic information, information on guidance services and counselor activities, recruitment philosophy and methods, selection philosophy and methods, vocational education philosophy and policy. The instruments were mailed to the vocational directors in each of the 38 area vocational schools and to

the regional vice-presidents in each of the 13 IVTC institutions. An initial and follow-up mailing was used.*

Instrument development was a critical phase of the research. Based upon the results of the interviews and analysis of documents obtained through the experience survey conducted in 12 school settings (both secondary and postsecondary schools), the first drafts of the instruments were prepared. Questionnaires that were discovered in the literature dealing with the topics of recruitment and selection were utilized in this preparation. Traditional measures to establish content validity (listing survey purposes and associated content areas, specifying objectives, and preparing items) were enhanced by the fact that content areas and items were shaped not only by information gathered from the literature but also by information obtained in the exploratory experience survey. Each instrument then underwent 2 revisions that were aimed at improving both their content and face validity. This was achieved by having professional educators skilled in questionnaire construction as well as 2 members of the staff of the Indiana State Board of Vocational and Technical Education that are familiar with the operations of vocational education schools review the instrument. A fourth and final version of the mail survey instrument was prepared following a pretest on a selected group of vocational education school administrators.

*Initial and follow-up letters that accompanied the instruments are displayed in Appendix A. The instruments are displayed in Appendix B.

IV. FINDINGS

Data gathered in the exploratory and descriptive phases of the research project are presented below. These data, combined with information gleaned from literature reviews, were incorporated in the design and development of a schema for recruitment and selection of vocational education students. This schema is present in a monograph that serves as a companion document to this project report.

Results of Survey of State Practices

Each state education agency responsible for vocational education was sent a letter requesting their cooperation in the study.* They were asked to describe vocational education student recruitment and selection procedures employed in their states. Their responses are summarized below.

Selection Policies and Procedures

Several states referred the inquiry letters to local education agencies. Other states sent materials but did not comment on statewide policies. Of the 25 states responding directly, 23 indicated that they had no statewide policy for the selection of vocational education students. In a few states, such as Connecticut, Georgia, and Mississippi, it was reported that a statewide policy was either in

*The initial and follow-up letters are displayed in Appendix C.

operation or under development. The Connecticut statewide admissions program is abstracted below.

Connecticut Uniform Admissions Program

Connecticut has a system of 17 state-operated Regional Vocational-Technical Schools serving secondary age youth and adults. These schools accept applications forwarded by local education agencies and admit the largest number of applicants into the ninth grade. In operation since the Fall of 1977, the Connecticut uniform admissions policy has been designed to meet the following objectives:

1. To ensure equal opportunity for all applicants for admission.
2. To select students with the greatest potential for meeting the demands of the program and fulfilling the goals and objectives of the program.
3. To collect data which describes incoming students so that curricula can be evaluated in relation to student needs and program goals.
4. To provide a system that lends itself to ongoing research so that it can be evaluated in terms of its predictive validity.⁷¹

The procedure consists of compiling student data on four weighted criteria: marks in grade 8 at mid-term and in grade 7 for the full year; attendance in grade 8; personal interview; a measure of reading and math skills via a standardized test. The data thus collected are used to place each applicant on a ranking list from which individual selection is made.⁷²

A local Admissions Advisory Committee with representatives from business, industry, labor, LEA's, vocational-technical school guidance personnel and instructional staff, and LEA guidance personnel is charged with a responsibility to participate at two points in the selection process: (1) to recommend how the ranking system is to be used, (2) to determine which applicants are selected

should variance from the ranking list occur. Though the committee does not do the actual selection of students, it does contribute to the entire admissions process.⁷³

Several other states, including Florida, Rhode Island, Massachusetts, Wisconsin, Virginia, Georgia and New York reported the use of manuals, handbooks, and/or policies that provided general guidelines and objectives for student selection.

On a statewide basis, however, most of those responding indicated that selection procedures at the secondary level were the concern of local education agencies. The following statements exemplify these responses:

- There are no statewide instruments, criteria, or policies pertaining to admission or selection procedures for vocational education. . . Program prerequisite(s) may be established locally for specific selection purposes, but this is totally a prerogative of the local education agency.⁷⁴
- To obtain detailed information on the nature and scope of career education student recruitment and selection practices, you would need to write to the Directors of Career Education in our 67 school districts. Each district develops its own policies relating to student. . . selection practices.⁷⁵
- Secondary school districts. . . have no state established criteria for admission or selection to programs. Such criteria would fall under the duties of the local board of trustees and would become a local administrative decision.⁷⁶
- There are not statewide requirements or guidelines for the selection. . . of. . . students by either area schools or the large city high schools. This is a matter of local determination and policy, and the state does not require that formal copies of policies be filed and approved by the State Education Department and its units.⁷⁷

Similarly, at the postsecondary level, reports indicated that selection was a matter of local policy. However, some states noted that state statute mandated a general admissions policy as revealed in the following statements:

- Montana's Postsecondary Vocational Technical Centers are specifically required by state statute to accept all students on a "first come/first serve" basis who have completed or left high school, are at least 16 years of age, and available for training.⁷⁸
- The Wisconsin system of vocational, technical and adult education is committed to an "open door" policy, wherein all eligible persons are admitted. Admission to specific programs is contingent upon individual ability to meet minimum requirements and prerequisites.⁷⁹
- It is the policy of Indiana Vocational Technical College to provide open admission for the residents of the state of Indiana. . . With its "open door" admission policy, the college admits anyone above the usual high school age or who has permanently withdrawn from high school and is more than 16 years of age. The college reserves the right to guide the enrollment of students in a particular program or course on the basis of their prior academic records, vocational counseling, and testing.⁸⁰

In addition to identifying local education agencies as having primary responsibility for setting selection policy and procedures, responses indicated that a wide range of selection methods and selection criteria are employed. Selection methods included the following:

- student choice,
- student choice in combination with class scheduling process,
- decision of counselor/administrator,

- decision by admissions committee, and
- quotas by program area.

Selection criteria identified by respondents included:

- testing with the General Aptitude Test Battery (GATB), Kuder, etc.,
- satisfactory citizenship and attendance record,
- recommendation of sending or feeder school,
- prior coursework,
- past academic record, and
- teacher recommendations.

Problems in the choice of selection criteria and methods were identified in responses from several states. For example, in the process of implementing a uniform admissions program in all of its 17 regional vocational-technical schools, Connecticut indicated that its biggest problem was the lack of selection criteria that have been validated for vocational-technical school use. An Illinois official pointed to another problem area in describing his state's stance on selection policy as follows:

Philosophically, we have been opposed to the concept of student selection because of the "creaming" that often occurs. As a result, almost all of public vocational education is on an open entry basis. This includes vocational education programs at the high school, area vocational center, and community college levels.⁸¹

Despite a willingness to serve the public through an open admissions policy at the area school or college level, selection/admission decisions at the vocational program level must often be made. One

respondent was refreshingly frank on commenting on the constraints operating in such a setting:

While, theoretically. . . all secondary students in the state should be provided the opportunity to apply for enrollment in vocational education courses commensurate with their interests and abilities, several factors work against this wide accessibility philosophy. These factors may be an oversupply of student applicants for a given number of projected entry jobs in the field or in instructional stations at the school. In many instances, the students with the better academic records are selected through local screening processes. Attendance and motivation factors are taken into account as per the home feeder school's recommendations, and very often students are admitted to a second or third occupational education curriculum choice, rather than to their first choice.⁸²

In sum, of those states responding, only a very few identified statewide procedures for the selection of students for vocational education programs. Selection appears to be largely a matter of local education policy and decision making. Respondents indicated that many criteria including test scores, recommendations, and the total record of the student were taken into account in the process of selecting/admitting students to vocational education programs. Several respondents reported that they employed an open-door admissions policy.

Recruitment Policies and Procedures

The majority of respondents indicated that recruitment of vocational education students was the responsibility of local education agencies. Of the 24 respondents that spoke directly to the issue of recruitment of students for vocational education programs, none identified a statewide recruitment program. Typical of the responses were the following:

- In terms of recruitment. . .most. . .schools do general recruitment of students into their programs. We do not, however, have any state guidelines regarding recruitment. Recruitment is considered to be a local matter.⁸³
- Although our State Department of Education has begun to move forward in the area of career education, there is presently no statewide program which functions as a . . .recruitment system. At both the secondary and postsecondary levels, recruitment efforts are unique to the individual school. Manuals, handbooks, and recruitment tools prepared locally vary in sophistication from simple brochures to multi-media productions used at the State Technical Institutes.⁸⁴
- Presently, at the state level, the . . .Department of Education does not have relevant material on "systematized recruitment."⁸⁵
- Recruitment policies, practices, and techniques vary from local efforts to statewide activities.⁸⁶

Multiple recruitment efforts emanating from both the local and state level agencies appear to be standard practice.

The distinction between audiences/populations targeted for recruitment activities at the secondary and postsecondary levels was aptly drawn in the following response:

. . .our postsecondary Technical Community Colleges do recruit students in an organized fashion through school visits, brochures, catalogs, etc. However our secondary schools have a captive audience and obtain students through scheduling activities.⁸⁷

A recruitment procedure typical of that followed by feeder schools and area vocational education schools at the secondary level is outlined below:⁸⁸

- junior high school students visit vocational center,
- prevocational course offered as an elective in grades 9 and 10,

- recruitment presentations (speaker, slide/tape or video show) made at 10th grade,
- 10th graders visit vocational center, and
- student makes choice of vocational program.

Those recruitment techniques and tools most frequently cited for use at both the secondary and postsecondary levels include the following:

- high school visitations,
- saturation mailings,
- radio spots,
- career fairs,
- participation in college nights,
- career awareness fairs,
- tours,
- letters to parents,
- multi-media presentations, and
- counselor's day.

Several states responded with information concerning prevocational and exploratory or career education courses at the secondary level. However, it was not clear to what extent such courses actually functioned as formal recruitment devices. Formal articulation of these courses/programs with vocational education curricula was used as the criteria for judging the use of these courses as recruitment activities.

In sum, the majority of respondents indicated that recruitment activities were a matter dealt with by local level policy makers. In many cases, recruitment of students for vocational programs is undertaken at both the local and statewide levels; however, it is impossible to

ascertain the degree of articulation of these multiple efforts. The use of a variety of recruitment tools was reported. It appears that some states utilize prevocational or exploratory courses/programs as ad hoc recruitment devices.

Results of Survey of Previous or Ongoing Projects in Indiana

A systematic search of the files of Indiana State Board of Vocational and Technical Education funded projects for the past five years revealed five projects directly pertaining to the recruitment and selection of students for vocational education programs at the secondary level. A development project conducted by the Evansville-Vanderburgh School Corporation (E-VSC) during the 1976-1977 school year resulted in the production of the following materials relevant to student recruitment and selection in the E-VSC area vocational education school:

- (1) A handbook for use by vocational education program teachers outlining the steps to be followed in preparing a selection instrument utilizing weighted rating scales.
- (2) A booklet for use by feeder school personnel describing the programs, requirements, and job outlooks for those programs offered at the area vocational education school.
- (3) Information pamphlets for each area school vocational education program and an accompanying brief career interest survey to be given to sophomores to gauge interest in vocational education program offerings.
- (4) A slide presentation publicizing vocational education opportunities to be used by feeder schools and service clubs.⁸⁹

A project conducted during the 1977-1978 school year in the New Albany-Floyd Consolidated School Corporation to develop and implement a student services demonstration model for the Charles Allen Prosser Area Vocational Center focused in part on the recruitment and subsequent selection of students for vocational education programs. Under the general administrative function of "admissions", procedures and methods for both pre-enrollment and enrollment activities were developed. Pre-enrollment (recruitment) activities focused on students at the elementary and junior/middle high school levels. Feeder school counselor responsibilities in recruitment and public relations methods are explained in a description of the model student services program published jointly by the State Board of Vocational and Technical Education and the Prosser Area Vocational Center. Enrollment/admissions, selection, and scheduling procedures are also discussed in the handbook. The handbook also contains sample forms for use by counselors in the student application and selection processes.⁹⁰

Three studies were found which dealt directly with the issue of selection of students for vocational education programs. In a project conducted at the South Bend campus of The Indiana Vocational Technical College system, investigators sought to develop specific diagnostic procedures and instrumentation that would allow both the counselor and the prospective student to determine more effectively specific occupational programs and career objectives. Investigators prepared a test package to determine student interest in occupations and occupational training programs and developed six work/study samples to simulate the

nature of instruction and the environmental conditions that the student would experience both in class and on the job. These diagnostic procedures were designed as a means to predict student success in the occupational program area in which he/she expressed interest.⁹¹

A work study sample lasting three to four days was constructed for the following occupational program areas: Automotive Service Technology, Drafting, Licensed Practical Nursing, Machine Tool Technology, Secretarial, and Welding. Students enrolling in each sample were administered a test package unique to that area. Instruments comprising each package included the Holland Self-Directed Search, selected subtests of the Flanagan Industrial Tests, and the Comprehensive Guidance Program Tests. Too few subjects completed the work/study samples to permit an analysis of the predictive ability of this diagnostic package. Data gathered on participant and faculty reaction to this combination work/study-testing approach are presented in the project's final report.⁹² In general, this approach appeared to have some utility as a pre-enrollment career exploration screening device.

Experimental research conducted in the Metropolitan School District of Wayne Township was also concerned with developing predictors of success in vocational education programs. This project proposed to develop a number of measures for use by counselors to better orient the direction of students pursuing vocational education, particularly those students who have had learning disabilities. Using several measures of motor skills, perceptual abilities, language skills, and

intellectual and cognitive abilities, investigators intended to predict a level of acquisition or achievement in either mechanical or personal service vocational education. The study sought to examine the relationship between the pattern of adaptive abilities (as measured in the areas noted above) and success in vocational education by comparing performance on selected measures of control and handicapped/disadvantaged groups. Several patterns of relative level of performance associated with success in mechanical-technical or personal-service vocational education programs emerged from the findings.⁹³

Finally, the SBVTE sponsored a project designed to develop an objective career counseling instrument for its area vocational schools. Fifteen instruments for programs in each of five program areas (Home Economics, Health, Trade and Industrial, Distributive Education, and Business and Office Education) were developed and field-tested in four Indiana area vocational schools.⁹⁴ The instruments, known as Hyde scales, use a weighted point scale to combine criteria such as previous grades, attendance, attitude, teacher recommendations, interest, and standardized test data in a single format. Cut-off scores for entrance into a particular program are established by the vocational education program teacher in cooperation with guidance personnel. The instruments are thus used as a means of selecting among those applying to a given vocational education program. The preparation and use of these scales is described in an article appearing in the American Vocational Journal.⁹⁵

Results of Mail Survey

The findings resulting from the two survey instruments mailed to the 38 Indiana area vocational education schools and the 13 regional campuses of the Indiana Vocational Technical College system are presented in this section. Table 1 indicates response rates.

In contacting nonrespondents by telephone, no evidence surfaced to indicate that they had significantly different opinions or practices than the respondents. A summary of selected items appears below.

Table 1
Response Rate to Mail Survey

Population Surveyed	Questionnaires Mailed	Questionnaires Returned	Response Rate %
Area Vocational Schools	38	33	86.8
Indiana Vocational Technical College Regional Campuses	13	10	76.9

Results of Survey of Area Vocational Education Schools

Vocational Guidance Supportive Services. Table 2 displays responses to three questions pertaining to vocational guidance supportive services. In general, findings indicate that the majority of respondents provide assistance in the areas of occupational information, job placement, graduate follow-up, and offer specialized remedial instruction.

Table 2
Status of Supportive Services (AVTS)

Item No.	Questionnaire Item	Response Rate (%) *
10	Does your school maintain a collection of occupational information materials? (N=33)	
	a. Yes	90.1
	b. No	09.1
11	What type of job placement services does your school provide for vocational education students? (N=33)	
	a. Vocational teachers inform students of job openings	15.2
	b. Placement office assists students	03.0
	c. Both teachers and placement office assist students	42.2
	d. Teachers, placement office and state employment services are used	24.2
	e. No placement services are provided	15.2
12	What type of follow-up studies of vocational education students does your school conduct? (N=33)	
	a. Graduates are followed-up using a survey instrument (formally)	33.3
	b. Graduates are followed-up informally through contacts with teachers, etc.	09.1

*Percentages reported in this and subsequent tables have been adjusted allowing for missing responses.

Table 2, continued

Item No.	Questionnaire Item	Response Rate (%)*
12	c. Graduates are followed-up formally and dropouts are followed-up either formally or informally	06.1
	d. c. (above) and employer surveys are conducted	21.3
	e. a. (above) and employer surveys are conducted	24.2
	f. b. (above) and employer surveys are conducted	03.0
	g. No follow-up services are provided	03.0
6	Does your school offer specialized remedial instruction for vocational education students with general education deficiencies? (N-32)	
	a. Yes	59.4
	b. No	40.6

Recruitment. Experience surveys conducted in preparation for the mail survey indicated that vocational guidance counselors frequently do not have sufficient time to recruit students for vocational education programs. Two items were prepared which were designed to determine who has primary responsibility for student recruitment and how counselors allocate time to these activities. Responses to these two items appear in Tables 3 and 4.

*Percentages reported in this and subsequent tables have been adjusted allowing for missing responses.

Table 3

Personnel Involved in the Recruitment Process (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
15	Who has the primary responsibility for recruiting students for your area vocational school programs? (N=28)	
	a. Area school counselor(s)	25.0
	b. Area school director	07.1
	c. Sending school counselor	14.3
	d. Sending school principal	03.6
	e. Cooperative effort of area and sending school	50.0

Table 4

Time Counselors Allocate to Various Activities (AVTS)

Item No.	Questionnaire Item	Range (%)	Mode (%)	Mean (%)
9	For your typical counselor, please give the percent of the total counseling effort devoted to the following activities: (N=28)			
	a. Counseling students with personal problems	0.-50.	10.	15.2
	b. Assisting students in job placement	0.-50.	05.	10.3
	c. Assisting students in selecting or scheduling courses	0.-75.	05.	23.3

Table 4, continued

Item No.	Questionnaire Item	Range (%)	Mode (%)	Mean (%)
9	d. Assisting students desiring information about further educational opportunities	0.-30.	05.	08.9
	e. Obtaining financial assistance for students	0.-20.	00.	03.9
	f. Dealing with attendance or discipline problems	0.-50.	00.	09.1
	g. Gathering information for reports, filing reports, other administrative matters	0.-50.	10.	13.7
	h. Recruiting students for area vocational school programs	0.-50.	10.	15.5

Several items were included in the survey in an attempt to characterize the recruitment process in area vocational education schools. Table 5 summarizes items that describe factors impacting the recruitment process. Table 6 provides an indication of how recruitment is defined by area school personnel. Table 7 provides an overview of commonly used recruitment techniques.

Table 5

Factors Impacting the Recruitment Process (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
13	Which of the following two approaches to recruiting students for vocational education programs is most often used? (N=33)	
	a. Publicizing individual program offerings	51.5
	b. Publicizing vocational education opportunities in general	48.5
14	Does your school give enrollment quotas for vocational education programs to its sending (feeder) high schools? (N=32)	
	a. Yes	43.8
	b. No	56.3
17	Which of the following statements best describes your assessment of the need to recruit? (N=29)	
	a. Recruitment is rarely needed because a sufficient number of students always show an interest in vocational programs	20.7
	b. Recruitment is occasionally needed because a few programs do not attract students	55.2
	c. Recruitment is a continuous effort because, for the most part, our programs can accommodate more students than are enrolled	24.1

Table 6

Rank Order of Perspectives on Recruitment (AVTS)

Item No.	Questionnaire Item	Important Unimportant (% Ranking)				Mean Rank
		1	2	3	4	
16	On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance to your school the following four perspectives which deal with recruitment:					
	a. Recruitment is public relations: an advertising function involving distribution of information to students, parents, and the general public (N=26)	30.8	46.2	19.2	03.8	1.96
	b. Recruitment is community education: increasing citizen awareness/knowledge of vocational opportunities and advantages of vocational education (N=26)	19.2	26.9	50.0	03.8	2.39
	c. Recruitment is identification and attraction of students to particular vocational education programs (N=27)	51.9	22.2	22.2	03.7	1.78
	d. Recruitment is meeting enrollment quotas: a short-term effort designed to increase enrollment in specific programs (N=26)	00.0	03.8	07.7	88.5	3.85

Table 7
Recruitment Techniques Used (AVTS)

Item No.	Questionnaire Item	N	Frequency of Use Scale (% responding)			
			Often	Occasionally	Infrequently	Never
18	Indicate the techniques used by your school by checking the frequency of use scale.					
a.	Radio spot announcement	30	06.7	33.3	33.3	26.7
b.	Television advertisements	30	00.0	03.3	13.3	83.3
c.	Newspaper advertisements	30	16.7	30.0	16.7	36.7
d.	Tours for interested groups and/or individuals	32	52.5	25.0	09.4	03.1
e.	Career days/ career fair	30	13.3	46.7	33.3	06.7
f.	Open house	30	50.0	33.3	13.3	03.3
g.	Pamphlets/ brochures	32	81.3	09.4	06.3	03.1
h.	Displays in public facilities (e.g., libraries, stores, etc.)	31	16.1	45.2	25.8	12.9
i.	Displays in sending schools	32	25.0	46.9	12.5	15.6
j.	Mass mailings	30	13.3	26.7	26.7	33.3
k.	Representatives of vocational education programs visit schools, businesses, and industries	30	60.0	36.7	03.3	00.0

It would appear that most respondents perceive recruitment primarily as the processes of identifying and attracting students to particular vocational education programs. This finding is congruent with the response to item 13 which is displayed in Table 5. It should also be noted that even though 43.8% of the respondents indicated that enrollment quotas are used (see item 14 in Table 5), the findings indicate that meeting enrollment quotas is considered the least important means for viewing the recruitment function (see item 16 in Table 6).

The pattern of use of recruitment techniques that emerges from the data displayed in Table 7 is typical of that expected for an area vocational education school. Drawing on a largely "captive" secondary school audience, recruiters in area vocational education schools make the most use of tours and open house activities, distribute literature, and visit sending or feeder schools.

Selection. To characterize the nature of the selection process in area vocational education schools, several types of questions were asked of respondents. Tables 8 and 9 show responses to items indicative of the policies and personnel involved in the selection process.

No clear picture emerges from the findings in Tables 8 and 9. Responses indicate that several individuals are involved in varying capacities in the acts of student selection, formulation of policy, and selection counseling. These results confirm the findings of the exploratory surveys conducted in advance of preparing the mail survey instrument.

Table 8

Procedures and Policy for the Selection Process (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
19	Which of the following statements best describes the relationship between your area school and its sending (feeder) schools with regards to the process of selecting students for vocational education programs? (N=29)	
	a. Area school staff select students from a list of recommended and/or eligible students that is provided by the sending schools..	37.9
	b. Area school staff do not participate in the selection process. Sending schools make the selection and the area school admits these students to its program.	24.1
	c. Area school staff and sending school staff meet to review eligible students and to make a joint decision on which students to admit.	17.2
	d. The process of selecting students is not uniform. Some sending schools do their own selection, others rely on the area school to make the selection.	20.7
20	Which of the following individuals and/or groups of individuals are responsible for formulating admissions policy governing vocational education students?* (N=31)	
	a. Students	03.2
	b. Teachers	67.7
	c. School counselors	61.3
	d. School advisory committee	35.5
	e. Program advisory committee(s)	29.0
	f. Administrative staff	96.8
	g. School board	22.6
	h. Other	16.1

*Percentages reported here indicate roughly how often these individuals are involved in formulating admissions policy.

Table 9
Personnel Involved in the Selection Process (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
21	Who most often makes the final decision to admit a student to a vocational education program? (N=30)	
	a. Vocational program teacher	10.0
	b. Sending school counselor	23.3
	c. Area school counselor	16.7
	d. Admissions advisory committee	13.3
	e. Sending school principal	06.7
	f. Area school director	16.7
	g. Other	13.3
22	Once a student has been admitted to an area school vocational education program, who has the responsibility for counseling that student in matters related to his/her vocational preparation? (N=31)	
	a. Area school counselor	22.6
	b. Sending school counselor	06.5
	c. Teacher in vocational education program	25.8
	d. Mutual responsibility of area school counselor and sending school counselor	29.0
	e. Other	16.1

Selection of students for vocational education programs is invariably guided by some type of vocational education program philosophy. In an attempt to determine the existence of a formal written policy and characterize the relative importance of different philosophies, the questions appearing in Tables 10 and 11 were asked of respondents.

Table 10

Written Policy and Philosophy for
Recruitment and Selection (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
30	Does your school have a written policy (guideline) or philosophy regarding vocational education student recruitment and selection? (N=23)	
	a. Yes	46.4
	b. No	53.6

How students are selected for vocational education programs is the next logical consideration. Tables 12 and 13 present the results of items that solicited information on student selection methods and criteria.

Table 11

Vocational Education Program Philosophy (AVTS)

Item No.	Questionnaire Item	Important (% Ranking)		Unimportant		Mean Rank
		1	2	3	4	
7	On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance to your school the following goals of vocational guidance and counseling:					
	a. To help students select training which is compatible with their interests, abilities, aptitudes (N=24)	70.8	29.2	00.0	00.0	1.29
	b. To provide the student with a full array of choices from which he/she may select a career (N=23)	30.4	47.8	17.4	04.3	1.96
	c. To identify those students who cannot succeed in regular vocational education programs and direct them to specialized study (N=23)	00.0	17.4	43.5	39.1	3.22
	d. To monitor students' vocational maturity and assist in its development (N=23)	00.0	04.3	39.1	56.5	3.52
29	On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of their importance for vocational education programs at your school the following four policy statements:					
	a. Meeting the <u>manpower needs</u> of local business and industry (e.g., the number of job openings to be filled) (N=26)	11.5	23.1	30.1	34.6	2.88

Table 11, continued

Item No.	Questionnaire Item	Important (% Ranking)		Unimportant		Mean Rank
		1	2	3	4	
29	b. Meeting the <u>vocational interests</u> of students (e.g., providing programs and services students indicate they want). (N=25)	40.0	12.0	20.0	28.0	2.36
	c. Meeting the <u>vocational skill training needs</u> of students (e.g., providing programs and services that best meet the needs of students lacking employability skills) (N=25)	44.0	20.0	32.0	04.0	1.96
	d. Meeting the <u>general vocational needs</u> of students (e.g., developing students' ability to make vocational decisions, introducing students to the world of work, etc.) (N=25)	08.0	44.0	16.0	32.0	2.72

Table 12
Testing as a Means of Selection (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
24	In the process of selecting, from among eligible applicants, those students to be admitted to vocational education programs, which of the following statements apply: (N=29)	
	a. Students are not tested	79.3
	b. Students are tested on an individual basis	06.9
	c. Students are tested on a group basis	10.3
	d. Only those students applying for certain programs are tested	03.4

Table 13
Selection Criteria (AVTS)

Item No.	Questionnaire Item	Response Rate (%)
26	A number of factors may be considered in the process of selecting students for vocational education programs. Examine the list below and check all those factors which your school uses in the selection process. (N=29)	
	a. Age/grade level	65.5
	b. Grade point average	37.9
	c. Achievement test	10.3
	d. Aptitude test	27.6
	e. Interest test	24.1
	f. Student's expressed interest	86.2
	g. Personality traits/characteristics	34.5
	h. Attendance record	82.8
	i. Prerequisite coursework	69.0
	j. Teacher recommendations	86.2
	k. Occupational readiness/vocational maturity	10.3
28	Does your school combine a number of factors (e.g., school records including attendance, grade point average, teacher recommendations, etc.) in making the decision to admit a student to a vocational education program? (N=29)	
	a. No	17.2
	If yes, which of the statements below best describes how these multiple factors are combined: (check one)	

Table 13, continued

Item No.	Questionnaire Item	Response Rate (%)
b.	Person responsible for selecting students (e.g., school counselor, vocational director, etc.) reviews all the factors and exercises professional judgment.	58.6
c.	Factors are assigned weighted point values and total point scores are calculated. Overall scores are then listed from highest to lowest and selection is made by taking the highest score.	13.8
d.	An applicant's score or performance is compared to scores or performance for successful students in vocational programs.	10.3
e.	Other method(s) are used.	10.3

Results of Survey of Indiana Vocational Technical College System

Essentially, the same questions were somewhat modified and asked in the survey of postsecondary institutions. Results are presented in Tables 14 to 24 without comment. A discussion of the findings is presented in Section V of this report.

Table 14

Status of Supportive Services (IVTC)

Item No.	Questionnaire Item	Response Rate (%)*
9	Does your school maintain a collection of occupational information materials? (N=10)	
	a. Yes	80
	b. No	20
10	What type of job placement services does your school provide for vocational education students? (N=10)	
	a. Cooperative program between school and state employment service	0
	b. Vocational teachers inform students of job openings	10
	c. Only placement office assists students	0
	d. Both teachers and placement office assist students	60
	e. a., b., and c.	30
	f. No placement services are provided	0
11	What type of follow-up studies of vocational education students does your school conduct? (N=10)	
	a. Only graduates are followed-up using a survey instrument	0
	b. Only graduates are followed-up informally through contacts with teachers, etc.	0
	c. Graduates and dropouts are followed-up using a survey instrument	0
	d. Graduates and dropouts are followed-up using a survey instrument and employer surveys are conducted	70
	e. a., b., c., and d.	30
	f. No follow-up services are provided	0
4	Does your school offer specialized remedial instruction for vocational education students with general education deficiencies? (N=10)	
	a. Yes	90
	b. No	10

*Percentages reported in this and subsequent tables have been adjusted allowing for missing responses.

Table 15
 Personnel Involved in the Recruitment Process (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
13	Who has the primary responsibility for recruiting students? (N=10)	
	a. Dean/Vice President	0
	b. Placement officer	10
	c. Director of Student Services	30
	d. School counselor(s)	0
	e. Vocational teacher(s)	10
	f. Other personnel specifically assigned this task	50

Table 16

Time Counselors Allocate to Various Activities (IVTC)

Item No.	Questionnaire Item	Range (%)	Mode (%)	Mean (%)
8	For your typical counselor, please give the percent of the total counseling effort devoted to the following activities: (N=8)			
	a. Counseling students with personal problems	01.-30.	05.	15.1
	b. Assisting students in job placement	00.-15.	05.	05.5
	c. Assisting students in selecting or scheduling courses	02.-35.	25.	17.1
	d. Assisting students desiring information about further educational opportunities	05.-40.	05.	14.4
	e. Obtaining financial assistance for students	05.-20.	05.	11.3
	f. Dealing with attendance or discipline problems	00.-10.	10.	06.4
	g. Gathering information for reports, filing reports, other administrative matters	01.-30.	10.	12.6
	h. Recruiting students	00.-50.	15.	23.2

Table 17

Factors Impacting the Recruitment Process (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
12	Which of the following two approaches to recruiting students for vocational education programs is most often used? (N=10)	
	a. Publicizing individual program offerings	60
	b. Publicizing vocational education opportunities in general	40
15	Which of the following statements best describes your assessment of the need to recruit? (N=10)	
	a. Recruitment is rarely needed because a sufficient number of students always show an interest in vocational programs	00
	b. Recruitment is occasionally needed because a few programs do not attract students	00
	c. Recruitment is a continuous effort because, for the most part, our programs can accommodate more students than are enrolled	100

Table 18

Rank Order of Perspectives on Recruitment (IVTC)

Item No.	Questionnaire Item	Important Unimportant (% Ranking)				Mean Rank
		1	2	3	4	
14	Recruitment is public relations: an advertising function involving distribution of information to students, parents, and the general public (N=10)	50	20	30	00	1.8
	Recruitment is community education: increasing citizen awareness/knowledge of vocational opportunities and advantages of vocational education (N=10)	20	40	20	20	2.4
	Recruitment is identification and attraction of students to particular vocational education programs (N=10)	10	40	50	00	2.4
	Recruitment is meeting enrollment quotas: a short-term effort designed to increase enrollment in specific programs (N=10)	20	00	00	80	3.4

Table 19
Recruitment Techniques Used (IVTC)

Item No.	Questionnaire Item	Frequency of Use Scale (% responding)			
		Often	Occasionally	Infrequently	Never
16	Indicate the techniques used by your school by checking the frequency of use scale. (N=10)				
	a. Radio spot announcement	30	60	10	00
	b. Television advertisements	10	20	30	40
	c. Newspaper advertisements	70	30	00	00
	d. Tours for interested groups and/or individuals	60	40	00	00
	e. Career days/ career fair	50	30	20	00
	f. Open house	20	80	00	00
	g. Pamphlets/ brochures	100	00	00	00
	h. Displays in public facilities (e.g., libraries, stores, etc.)	20	50	30	00
	i. Displays in secondary schools	40	60	00	00
	j. Mass mailings	80	20	00	00
	k. Representatives of vocational education programs visit schools, businesses, and industries	100	00	00	00

Table 20
Personnel Involved in the Selection Process (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
17	Which of the following individuals and/or groups of individuals are responsible for formulating admissions policy governing vocational education students?* (N=10)	
	a. Students	00
	b. Teachers	50
	c. School counselors	40
	d. School advisory committee	10
	e. Program advisory committee(s)	40
	f. Administrative staff	50
	g. Regional board of trustees	50
	h. Other (State Board)	50
18	Who most often makes the final decision to admit a student to a vocational education program? (N=10)	
	a. Vocational program teacher	50
	b. School counselor	00
	c. Admissions advisory committee	00
	d. Director of student services	20
	e. Dean/Vice President	00
	f. Other (open admissions policy)	30

*Percentages reported here indicate roughly how often these individuals are involved in formulating admissions policy.

Table 21

Written Policy and Philosophy for
Recruitment and Selection (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
26	Does your school have a written policy (guidelines) or philosophy regarding vocational education student recruitment and selection? (N=10)	
a. Yes		60
b. No		40

Table 22

Vocational Education Program Philosophy (IVTC)

Item No.	Questionnaire Item	Important		Unimportant		Mean Rank
		1	2	3	4	
5	On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance to your school the following goals of vocational guidance and counseling: (N=10)					
	a. To help students select training which is compatible with their interests, abilities, aptitudes	70	20	10	00	1.4
	b. To provide the student with a full array of choices from which he/she may select a career	10	70	20	00	2.1
	c. To identify those students who cannot succeed in regular vocational education programs and direct them to specialized study	20	00	30	50	3.1
	d. To monitor students' vocational maturity and assist in its development	00	10	40	50	3.4
25	On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of their importance for vocational education programs at your school the following four policy statements: (N=10)					

Table 22, continued

Item No.	Questionnaire Item	Important		Unimportant		Mean Rank
		1	2	3	4	
25	a. Meeting the <u>manpower needs</u> of local business and industry (e.g., the number of job openings to be filled)	40	20	40	00	2.0
	b. Meeting the <u>vocational interests</u> of students (e.g., providing programs and services students indicate they want)	00	30	30	40	3.1
	c. Meeting the <u>vocational skill training needs</u> of students (e.g., providing programs and services that best meet the needs of students lacking employability skills)	60	20	10	10	1.7
	d. Meeting the <u>general vocational needs</u> of students (e.g., developing students' ability to make vocational decisions, introducing students to the world of work, etc.)	00	30	20	50	3.2

Table 23

Testing as a Means of Selection (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
20	In the process of selecting, from among eligible applicants, those students to be admitted to vocational education programs, which of the following statements apply: (N=10)	
	a. Students are not tested	10
	b. Students are tested on an individual basis	50
	c. Students are tested on a group basis	20
	d. Only those students applying for certain programs are tested	20

Table 24
Selection Criteria (IVTC)

Item No.	Questionnaire Item	Response Rate (%)
22	A number of factors may be considered in the process of selecting students for vocational education programs. Examine the list below and check all those factors which your school uses in the selection process: (N=8)	
	a. Age/grade level	40
	b. Grade point average	50
	c. Achievement test	50
	d. Aptitude test	20
	e. Interest test	10
	f. Student's expressed interest	50
	g. Personality traits/characteristics	10
	h. High school attendance record	40
	i. Prerequisite coursework	40
	j. High school teacher recommendations	00
	k. Occupational readiness/vocational maturity	10
24	Does your school combine a number of factors (e.g., school records including attendance, grade point average, teacher recommendations, etc.) in making the decision to admit a student to a vocational education program? (N=10)	
	a. No	60
	If yes, which of the statements below best describes how these multiple factors are combined: (check one)	

Table 24, continued

Item No.	Questionnaire Item	Response Rate (%)
24	b. Person responsible for selecting students (e.g., school counselor, vocational director, etc.) reviews all the factors and exercises professional judgment.	40
	c. Factors are assigned weighted point values and total point scores are calculated. Overall scores are then listed from highest to lowest and selection is made by taking the highest score.	00
	d. An applicant's score or performance is compared to scores or performances for successful students in vocational programs.	00
	e. Other method(s) are used.	00

V. SUMMARY AND CONCLUSIONS

On the following pages, the results from the surveys of the secondary and postsecondary vocational education schools are summarized and discussed. This section concludes with a brief discussion of the limitations of the survey methodology employed in the study.

Vocational Guidance Supportive Services

Supportive services serve as both aids in the selection process (e.g., occupational information, remedial instruction) and means of evaluating the effectiveness of recruitment and selection strategies. The survey indicates that area vocational schools provide these supportive services. Almost all maintain a collection of occupational information materials; the majority offer specialized remedial instruction for vocational education students; and all but a very few area schools provide some combination of placement and follow-up services. The situation is nearly identical at the postsecondary level. All IVTC institutes provide placement and follow-up services, and with few exceptions occupational information materials and specialized remedial instruction are also available.

However, even though the survey indicates the existence of these services, it does not provide information on their use. For example, critical questions that are not answered in the survey indicate the following: How extensive is the "collection" of occupational information materials? How are these materials utilized

in recruitment and selection? Are these materials used effectively? What does the placement service, provided by teachers and/or a placement office, consist of? Is it effectively utilized? How often are follow-up studies and/or employer surveys conducted? How are results used in improving recruitment and selection mechanisms? To a large extent, answers to these questions involve detailed descriptions that cannot be accurately obtained in the forced-choice answer format of a mail survey instrument.

Recruitment

At the area vocational education school level, the recruitment process can be characterized in the following ways. Recruitment is largely a shared responsibility of both the area vocational education school and its sending or feeder high schools. Furthermore, recruitment is generally but one of several activities that a typical counselor engages in. Recruitment is considered important largely in terms of its public relations function and as a means of identifying and attracting students to particular vocational education programs. Enrollment quotas appear to play a negligible role in the recruitment of students from a "captive" secondary school audience. The majority of respondents indicated that recruitment efforts mount when particular programs fail to attract a sufficient number of students. For the most part, respondents indicated that they rely on the use of tours of their facilities, printed material (e.g., pamphlets and brochures), and visits by vocational education program representatives as the principal means of recruiting.

Respondents to the survey of IVTC institutions indicated that recruitment is most often the responsibility of a particular individual assigned to that task. At this level, recruitment is viewed as a continuous effort in the realm of both public relations and community education. A wide variety of recruitment techniques are employed with particular emphasis on print and print media (e.g., pamphlets/brochures, mass mailings, newspaper advertisements). At this level as well as in the case of the area vocational education schools, the survey yields a limited picture of the recruitment effort. More information describing the actual process, its effectiveness, issues of equity, and contingencies involved is needed.

Selection and Vocational Education Philosophy

The majority of respondents to the survey of area vocational education schools indicated that they did not have a written statement of philosophy or policy which served as a basis for recruitment and selection activities. Their responses to questions concerning vocational education program philosophy indicated the following: The vast majority consider the primary goal of vocational guidance and counseling to be that of helping students to select vocational training that is compatible with their interests, abilities, and aptitudes. Second, meeting the vocational skill training needs and the vocational interests of students emerged as the most important policy statements.

In terms of operationalizing the selection process, there appeared to be wide variability in the parties responsible for the selection decision and in the assumption of responsibility for following through with students once the selection decision was made. Likewise, there appeared to be little uniformity in the process of selection concerning the mutual relationship of area schools and their respective sending or feeder high schools. The degree of involvement in and responsibility for selection varied not only across all area school settings, but within a given area school setting as well. The vast majority of respondents indicated that they did not test students as part of the selection process. Responses indicated heavy reliance on the following selection criteria: age/grade level, student's expressed interest, attendance record, and teacher recommendations. The majority of respondent's indicated that some type of clinical method was employed by the party (parties) responsible for the selection decision.

At the postsecondary level, respondents to the survey of IVTC institutions indicated that most had a written policy on recruitment and selection. Responsibility for formulating admissions policy appeared to be divided among regional and state-level governing boards and local school personnel. This division implies the existence of a uniform, or campus-wide policy, which is operationalized at the local campus level. Though several respondents noted the existence of an "open-door" admissions policy, others indicated that admission decisions were made by teachers and student service personnel.

In terms of policy, respondents indicated that helping students select training that is compatible with their interests, abilities and aptitudes was the most important goal of vocational guidance and counseling. Meeting the skill training needs of students was ranked as the most important goal statement, followed by meeting the manpower needs of local business and industry.

Most respondents indicated that some form of testing (e.g., individual, group, particular program) is used in the selection process. Several factors or criteria such as aptitude and interest test scores, high school teacher recommendations, measures of personality traits, and measures of occupational readiness or vocational maturity received limited or no use in the selection process. A wide variability in the use of other criteria was also indicated. Most respondents indicated that admission decisions were not based on multiple factors. Those that employed multiple factors relied on the use of clinical methods of selection.

Limitations of the Survey Method

The findings of this (or any other) survey must be viewed within the context of the assumptions on which the survey method is based and the tradeoffs which it entails. The fit between the research problem and research method is often neglected in reporting results. The following discussion is intended as neither lament nor apology for the present study. Rather it is offered as a brief, but critical examination of the appropriateness of the method employed.

The use of the survey method is based on several critical assumptions which bear elaboration here. First, it is assumed that respondents are completely honest in their responses, that all respondents have a similar understanding of the gist of each question, and that responses are stable. Each of these assumptions can be questioned in this study. While we may believe that respondents did not deliberately intend to be deceptive in their responses, it seems unlikely that individuals who are rarely completely honest or truthful in their dealings with one another are likely to welcome the opportunity to reveal themselves in an impersonal, anonymous questionnaire. Furthermore, despite rigorous attempts to construct unambiguous items, there is reason to believe that the forcing of opinion into a yes, no, or rank continuum distorts the uncertain reality that opinion occupies in the thought world of the respondent.⁹⁶ Ultimately, questionnaire answers reflect the social situation of being questioned. The actual behavior being tapped is the mode of responding, not the response's content.

Second, the survey method treats nonresponse as a form of error. High nonresponse rates are considered to be a problem for which strategies must be devised. We thus assume that ideal respondents are compliant, cooperative, and willing to respond. However, rather than seeking to eliminate nonresponse, it seems reasonable to consider that nonresponse might be an equally valuable meaningful statement on the part of the respondent. It may indicate his/her unwillingness to be cast in the role of respondent, the irrelevance of the questionnaire,

the inappropriateness of the method, etc. It is quite possible that nonresponse indicates attitudes toward the research which are valuable information.

Third, answers to questionnaire items are typically taken at face value. In other words, responses are considered to be reflections of the respondent's thoughts about the subject matter of the question. A more realistic view of responses would be a critical attitude which considers responses to questions as reflections of the respondent's feelings about being put in the role of a respondent. The particular set of contingencies under which the respondent is operating must be considered in evaluating responses.⁹⁷ In sum, "different situations produce different perceptions and definitions of reality rather than there being a real response that contrasts with a biased response."⁹⁸

Through the use of the survey method there accrues a set of advantages and disadvantages. These tradeoffs may be summarized as follows. This survey was economical in that it permitted the tapping of a relatively large population at relatively low cost. Compared with field interviewing and case study preparation, the survey was logistically easier to manage and administer. Since this method facilitated the aggregation of responses, it permitted alacrity in the reporting of results. Offsetting these advantages are the following disadvantages. First, the forced choice response format of a questionnaire tends to suppress the exceptional, the deviant, or the unusual interpretation. Second, it is difficult to obtain information on the process of events via a questionnaire while keeping the

questionnaire to a manageable length to facilitate high response rates. Third, a questionnaire tends to create, rather than reflect reality, because individuals respond to the researcher's questions rather than describe their experience. Thus, a questionnaire is often a mirror of the researcher's world rather than a vehicle for expressing the respondent's world.

These reflections on the limitations of the survey method in this study are occasioned by the fact that a different methodology was employed earlier in the study. The contrast between the type of information obtained via each method points to an inappropriate fit between survey method and research problem.

As a starting point for the inquiry into recruitment and selection processes, several site visits were undertaken. As described earlier, both area vocational education schools and IVTC campuses were visited in an attempt to discover information about recruitment and selection that could then be used to draft a mail survey instrument. These site visits yielded a rich variety of information on the conduct and content of recruitment and selection activities. Through interviews, observation, and analysis of documents researchers were able to examine the interplay of personal and institutional factors and contingencies that were site specific in the development and implementation of recruitment and selection strategies. The visits permitted researchers to take a rational approach to the problem of discovery and description as well as capitalize on serendipitous occurrences in each setting. Knowledge of both structure and process of recruitment and selection was generated.

These first steps into the field permitted the "grounding" of survey questions in respondents' reality. However, they also demonstrated that the processes of recruitment and selection were too situation bound to be adequately captured in a survey instrument. For example, no single set of factors could explain the relationship between all area vocational education schools and their respective sending or feeder high schools regarding recruitment and selection. Even within a given area school, relationships between the area school and its sending schools differed.

Unfortunately, because these field-based surveys required a large expenditure of researcher time, effort and money, it was determined that they could not be conducted in all area vocational education schools and all Indiana Vocational Technical College sites. Consequently, the mail survey instrument was developed and administered. As a result, the findings presented here sacrifice both richness and detail in their description and understanding of the commonalities and the base structure of vocational education student recruitment and selection processes.

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VII. APPENDICES

Appendix A: Cover and Follow-Up Letters for Survey Instruments

STATE OF INDIANA

State Board of
Vocational and Technical Education

INDIANAPOLIS 46204

401 Illinois Building
17 West Market Street
Indianapolis, Indiana 46204
Phone (317) 831-1530

M E M O R A N D U M

TO: Vocational ~~Administrators~~

FROM: Don K. ~~Cox~~, ~~Executive Officer/State Director~~ of Vocational Education

DATE: February 11, 1979

RE: Student Recruitment and Selection

The State Board of Vocational and Technical Education is currently conducting a study on vocational education student recruitment and selection practices in Indiana. This study is being coordinated by the Center for Studies in Occupational Education of the Department of Vocational Education at Indiana University.

As is often the case with such "state of the art" studies, information must be gathered from those of you who are responsible for delivering Indiana's vocational education programs. Basically, what we are seeking is accurate information regarding the variety of ways in which students are recruited and selected for vocational education programs. Our preliminary work reveals that different schools in different settings utilize various recruitment and selection methods. We are certain that the study will bring to light several exemplary practices that can be shared among institutions. Our findings will have much impact on setting future priorities for assisting schools in the broad area of vocational education student recruitment and selection.

Would you please assist us in this important study by taking the time to complete and return the enclosed questionnaire. It consists of several items that have been carefully designed to give us vital information for ascertaining vocational education student recruitment and selection practices in Indiana. All of your responses will be kept strictly confidential and information will be released only in summary form. We would appreciate your returning the questionnaire by March 31, 1979. An addressed and stamped envelope is enclosed for your convenience.

Thank you for your time and consideration in this matter. We look forward to receiving your response shortly.

DRG/EH:alb

Enclosure



INDIANA UNIVERSITY

SCHOOL OF EDUCATION

DEPARTMENT OF VOCATIONAL EDUCATION

Education Building 216

Gay and Jordan

Bloomington, Indiana 47405

812-337-8104

812-337-0141

Dear

We need your help!

In March you received a copy of a questionnaire seeking information on vocational education student recruitment and selection practices. This study is being conducted by the State Board of Vocational and Technical Education under the direction of the Center for Studies in Occupational Education of the Department of Vocational Education at Indiana University.

As we near the completion of our work, we ask your assistance. Please take the time to complete and return the enclosed questionnaire. All of your responses will be kept strictly confidential, and information will only be used in summary form.

We would appreciate your returning the questionnaire by May 31, 1979. An addressed and stamped envelope (no postage is required) is enclosed for your convenience.

Your assistance is critical in helping us portray the "state of the art" of recruitment and selection practices in vocational education in Indiana.

Thank you for your time and consideration. We look forward to receiving your response shortly.

Sincerely,

James A. Pershing
Director, Center for
Studies in Occupational Education

JAP:sls

Enclosures

Indiana University at Bloomington and Indiana University-Purdue University at Indianapolis

Appendix B: Mail Survey Instruments

SURVEY OF
VOCATIONAL EDUCATION STUDENT RECRUITMENT
AND SELECTION PRACTICES IN INDIANA

NAME OF PERSON COMPLETING FORM: _____		
TITLE/POSITION: _____		
PLEASE FILL IN THE INFORMATION REQUESTED ABOVE AND RESPOND CAREFULLY TO THE QUESTIONS ON THE FOLLOWING PAGES. ALL RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL. THANK YOU FOR YOUR TIME AND CONSIDERATION IN THIS MATTER.		

THE CENTER FOR STUDIES IN OCCUPATIONAL EDUCATION
DEPARTMENT OF VOCATIONAL EDUCATION
INDIANA UNIVERSITY

AVIS 2/79

The following questions call for information describing enrollments and types of vocational education program offerings. Please record numbers as accurately as possible.

1. Enrollment figures--secondary:

_____ How many secondary level vocational education students does your area school presently serve?

_____ % What percent of these students are female?

2. Enrollment figures--adult:

_____ How many adult vocational education students does your area school presently serve?

_____ % What percent of these students are female?

3. This school offers vocational education programs:

Daytime only

Both daytime and evening

4. What is the total number of daytime students in vocational education programs that your facility is capable of handling? _____

5. Does your school offer vocational education for special needs students?

Yes

No

If yes, which of the following types of persons are served?

Physically handicapped students

Bilingual students

Mentally handicapped students

Other (specify) _____

Disadvantaged students

If yes, which of the following instructional methods are used?

Separate special needs vocational education programs

Students are mainstreamed in regular vocational education programs

Both of the above

6. Does your school offer specialized remedial instruction for vocational education students with general education deficiencies?

Yes

No

The next group of items ask for information regarding several aspects of your school's guidance services and the activities of counselors serving vocational education students.

(2)

7. ~~Rank in order of importance~~ Rank in order of importance to your school, the following goals of vocational guidance and counseling:

Rank Order:

1, 2, 3, 4

- To ~~provide~~ select training which is compatible with their ~~interests, aptitudes~~ interests, aptitudes
- To ~~provide~~ the student with a full array of choices from which he/she ~~may~~ select ~~and~~ career
- To identify ~~those~~ students who cannot succeed in regular vocational education programs ~~and~~ direct them to specialized study
- To ~~monitor~~ students' vocational maturity and assist in its development

8. What is the typical number of counselors at this school? _____

How many of these counselors have had the following:

- _____ Teaching experience in vocational education
- _____ Pre-service coursework in vocational education
- _____ In-service coursework in vocational education
- _____ Experience in business or industry that is related to vocational education programs
- _____ Other vocational education related training and/or experience (specify): _____

9. For your typical counselor, please give the percent of the total counseling effort devoted to the following activities:

- _____ % Counseling students with personal problems
- _____ % Assisting students in job placement
- _____ % Assisting students in selecting or scheduling courses
- _____ % Assisting students desiring information about further educational opportunities
- _____ % Obtaining financial assistance for students
- _____ % Dealing with attendance or discipline problems
- _____ % Gathering information for reports, filing reports, and other administrative matters
- _____ % Recruiting students for your area school vocational programs
- 100 %

10. Does your school maintain a collection of occupational information materials?

Yes No

If yes, check which of the following sources from which you obtain materials:
(check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> B'nai B'rith | <input type="checkbox"/> Military Services |
| <input type="checkbox"/> Chronicle Guidance Publications | <input type="checkbox"/> Professional Organizations & Societies |
| <input type="checkbox"/> ERIC Clearinghouse | <input type="checkbox"/> U.S. Government Publications |
| <input type="checkbox"/> Literature from Business & Industry | <input type="checkbox"/> State of Indiana Publications |
| <input type="checkbox"/> Manpower Administration | <input type="checkbox"/> Other (specify) _____ |

(Question #10 continued on next page)

(Question #10 continues):

Who is responsible for cataloguing, updating, and evaluating this information?
(check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> School librarian | <input type="checkbox"/> Counseling staff |
| <input type="checkbox"/> Special school personnel
assist with this task | <input type="checkbox"/> Other (specify) _____ |

How are students exposed to these materials? (check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Counseling counseling activities | <input type="checkbox"/> Students use materials on their own |
| <input type="checkbox"/> Instructional counseling activities | <input type="checkbox"/> Teacher(s) distribute and/or discuss materials with students |
| <input type="checkbox"/> Exploration exploration/information | |

11. Does your school provide job placement services to vocational education students?

- Yes No

If yes, indicate which type of service is provided: (check all that apply)

- Cooperative program between school and state employment service
- Vocational teachers inform students of job openings
- Placement office maintains and updates file of job openings
- Placement officer assists students
- Other (specify) _____

12. Does your school conduct follow-up studies of its vocational education students?

- Yes No

If yes, which of the following studies are conducted? (check all that apply)

- Vocational education program graduates are followed-up using a survey instrument
- Vocational education program dropouts are followed-up using a survey instrument
- Vocational education program graduates are followed-up informally through contacts with teachers, counselors, etc.
- Vocational education program dropouts are followed-up informally through contacts with teachers, counselors, etc.
- Employer surveys are conducted

Questions which follow seek information about both the philosophy and methods of vocational education student recruitment.

13. Which of the following two approaches to recruiting students for vocational education programs is most often used in your school? (check one)

- Publicizing individual program offerings
- Publicizing vocational education opportunities in general

14. Does your school give enrollment quotas for each vocational education program area to your sending (feeder) schools?

Yes No

If yes, please list the three programs in which you have the most difficulty filling quotas and the three programs in which you have the least difficulty in filling quotas:

Programs Most Difficult to Fill

Programs Least Difficult to Fill

(1) _____

(1) _____

(2) _____

(2) _____

(3) _____

(3) _____

15. Who has the primary responsibility for recruiting students for your area school vocational education programs? (check one)

Area school counselor(s)

Sending school principal

Area school director

Cooperative effort of both area school and sending school

Sending school counselor(s)

16. On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance to your school the following four perspectives which deal with recruitment:

Rank Order

1, 2, 3 and 4

Recruitment is public relations--an advertising function involving the distribution of information on program offerings and school characteristics to students, parents, and the general public

Recruitment is community education--increasing citizen awareness about opportunities and advantages of vocational education and thereby increasing school enrollment

Recruitment is identification and attraction of students--identifying and aggressively recruiting those students who exhibit a desire and a need for a particular vocational education program

Recruitment is meeting enrollment quotas--a short-term effort designed to increase specific program enrollment

17. Which of the following statements best describes your assessment of the need to recruit students for vocational education programs? (check one)

A sufficient number of students always show an interest in vocational education programs; therefore, recruitment is rarely needed.

Occasionally, a few program offerings do not attract students; therefore, recruitment is used for those programs.

For the most part our programs can accommodate more students than are enrolled; therefore, recruitment is a continuous effort.

18. Listed below are ~~several~~ recruitment techniques that have been used by vocational educators. Indicate ~~which~~ of these techniques your school has used by checking one of the four boxes to the right of each technique.

Technique	Frequency of Use Scale			
	Often	Occasionally	Infrequently	Never
Radio spot announcements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Television advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tours for interested groups and/or individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career days/career fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pamphlets/brochures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displays in public facilities (e.g. libraries, stores, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displays in sending schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mass mailings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Representatives of vocational education programs visit schools, businesses, and industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This section of the questionnaire seeks information concerning the philosophy and methods of selecting students for vocational education programs.

19. Which of the following statements best describes the relationship between your area school and its sending (feeder) schools with regards to the process of selecting students for vocational education programs? (check one)
- Area school staff select students from a list of recommended and/or eligible students that is provided by the sending schools.
- Area school staff do not participate in the selection process. Sending schools make the selection and the area school admits these students to its programs.
- Area school staff and sending school staff meet to review eligible students and to make a joint decision on which students to admit.
- The process of selecting students is not uniform. Some sending schools do their own selection and others rely on the area school to make the selection.

20. Which of the following individuals and/or groups of individuals are responsible for formulating admissions policy governing vocational education students? (check all that apply)

- Students
- Teachers
- School counselors
- School advisory committee
- Program advisory committee(s)
- Administrative staff
- School board
- Other (specify) _____

21. Who most often makes the final decision to admit a student to a vocational education program? (check one)

- Vocational program teacher
- Sending school counselor
- Area school counselor
- Admissions advisory committee
- Sending school principal
- Area school director
- Other (specify) _____

22. Once a student has been admitted to an area school vocational education program, who has the responsibility for counseling that student in matters related to his/her vocational preparation? (check one)

- Area school counselor
- Sending school counselor
- Teacher in vocational education program
- Mutual responsibility of area school counselor and sending school counselor
- Area school director
- Other (specify) _____

23. In the current school year, approximately how many students have been denied their first choice of a vocational education program?

Briefly describe what happens to those students who are denied their first choice:

24. In the process of selecting, from among eligible applicants, those students to be admitted to vocational education programs, which of the following statements apply: (check one and supply information in the blanks provided)

- Students are not tested. Go to question #25.
- Students are tested on an individual basis. Test(s) used: _____
- Students are tested on a group basis. Test(s) used: _____
- Only those students applying for certain programs are tested.

<u>Name of Program</u>	<u>Test(s) Used</u>
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____

IF YOU TEST STUDENTS MOVE ON TO QUESTION #26
--

25. If you do not test students interested in applying for vocational education programs, which of the statements below best describes your reasons for not testing: (check all that apply)

- Testing all interested students is too time consuming
- We lack available personnel to administer the test(s)
- Tests are poor predictors of student performance in vocational programs
- Testing all interested students is too expensive
- Personnel lack familiarity with available tests, their uses, and interpretation

26. A number of factors may be considered in the process of selecting students for vocational education programs. Examine the list below and check all those factors which your school uses in the selection process. Then, in the column to the right provide the name of the particular test or instrument used (e.g., Kuder Occupational Interest Survey) or the source of the data (e.g., student's cumulative record).

<u>Check Factors Used in Selection</u>	<u>Supply Name of Test/Source of Data</u>
<input type="checkbox"/> Age/Grade level	_____
<input type="checkbox"/> Grade point average	_____
<input type="checkbox"/> Achievement test	_____
<input type="checkbox"/> Aptitude test	_____
<input type="checkbox"/> Interest test	_____
<input type="checkbox"/> Student's expressed interest	_____
<input type="checkbox"/> Personality traits/characteristics	_____
<input type="checkbox"/> Attendance record	_____
<input type="checkbox"/> Prerequisite coursework	_____
<input type="checkbox"/> Teacher recommendations	_____
<input type="checkbox"/> Occupational readiness/vocational maturity	_____
<input type="checkbox"/> Other (specify) _____	_____
_____	_____

27. Once again consider the number of potential factors used in selecting students for vocational education programs. Assume that you have the resources (e.g., personnel, time, money) allowing you to use any factors you desire. Under these ideal conditions indicate the extent to which you would use the following factors:

Factor	Ideal Frequency of Use		
	All the time	Sometime	Never
Age/Grade level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school grade point average	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achievement test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aptitude test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interest test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student's expressed interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personality inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school attendance record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prerequisite coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school teacher recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test of vocational maturity/ occupational readiness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. Does your school combine a number of factors (e.g., school records including attendance, grade point average, teacher recommendations, etc.) in making the decision to admit a student to a vocational education program?

Yes No

If yes, which of the statements below best describes how these multiple factors are combined: (check one)

- Person responsible for selecting students (e.g., school counselor, vocational director, etc.) reviews all the factors and exercises professional judgment.
- Factors are assigned weighted point values and total point scores are calculated. Overall scores are then listed from highest to lowest and selection is made by taking the highest score.
- An applicant's score or performance is compared to scores or performance for successful students in vocational programs.
- Other method(s) are used (specify) _____

This final section of the questionnaire consists of two questions regarding vocational education philosophy and policy. The last question asks you to identify areas in which assistance may be needed.

29. On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of their importance for vocational education programs at your school the following four policy statements:

Rank Order

1, 2, 3 and 4

- Meeting the manpower needs of local business and industry (e.g., the number of job openings to be filled)
- Meeting the vocational interests of students (e.g., providing programs and services students indicate they want)
- Meeting the vocational skill training needs of students (e.g., providing programs and services that best meet the needs of students lacking employability skills)
- Meeting the general vocational needs of students (e.g., developing students' ability to make vocational decisions, introducing students to the world of work, etc.)

30. Does your school have a written policy (guideline) or philosophy regarding vocational education student recruitment and selection?

Yes

No

(If such statements are available, we would appreciate your sending us copies along with your completed questionnaire)

31. Which of the following materials and/or activities would be of use to you? (check all that apply)

- Handbook explaining exemplary admissions policies/selection methods
- Handbook explaining recruitment techniques/procedures
- In-service workshops for vocational counseling staff on student selection procedures
- In-service workshops for teachers on vocational guidance and vocational development
- Consultant services in vocational student recruitment/selection
- Other (specify) _____
- _____
- _____

THANK YOU FOR YOUR RESPONSES; ALL WILL BE HELD IN STRICT CONFIDENCE. PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED ENVELOPE. NO POSTAGE IS REQUIRED.

SURVEY OF
VOCATIONAL EDUCATION STUDENT RECRUITMENT
AND SELECTION PRACTICES IN INDIANA

[]
NAME OF PERSON COMPLETING FORM: _____	
TITLE/POSITION: _____	
PLEASE FILL IN THE INFORMATION REQUESTED ABOVE AND RESPOND CAREFULLY TO THE QUESTIONS ON THE FOLLOWING PAGES. ALL RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL. THANK YOU FOR YOUR TIME AND CONSIDERATION IN THIS MATTER.	

THE CENTER FOR STUDIES IN OCCUPATIONAL EDUCATION
DEPARTMENT OF VOCATIONAL EDUCATION
INDIANA UNIVERSITY

PS 2/79

The following questions call for information describing enrollments and types of vocational education program offerings. Please record numbers as accurately as possible.

1. Enrollment figures:

_____ What is the total full-time enrollment for your school?

_____ What is the total part-time enrollment for your school?

_____ % What percentage of the entire (both full and part-time) enrollment is female?

2. What is the total number of students in both day and evening vocational education programs that your facility is capable of handling (combine all training sites)?

3. Does your school offer vocational education for special needs students?

Yes

No

If yes, which of the following types of persons are served?

Physically handicapped students

Bilingual students

Mentally handicapped students

Other (specify) _____

Disadvantaged students

If yes, which of the following instructional methods are used?

Separate special needs vocational education programs

Students are mainstreamed in regular vocational education programs

Both of the above

4. Does your school offer specialized remedial instruction for vocational education students with general education deficiencies?

Yes

No

The following items ask for information regarding several aspects of your school's guidance services and the activities of counselors serving vocational education students.

5. On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance the following goals of vocational guidance and counseling for your school:

Rank Order

1, 2, 3 and 4

To help students select training which is compatible with their interests, abilities, aptitudes

To provide the student with a full array of choices from which he/she may select a career

To identify those students who cannot succeed in regular vocational education programs and direct them to specialized study

To monitor students' vocational maturity and assist in its development

6. Please give the number of pupil personnel employed in each category below. If an individual performs more than one task--count that person only in the category of main responsibility.

_____ Guidance counselor	_____ Director of student services
_____ Placement officer	_____ Other (specify) _____
_____ Follow-up specialist	_____

7. Of the pupil personnel listed in item #6, give the number of individuals who have had the following:

_____ Teaching experience in vocational education

_____ Pre-service coursework in vocational education

_____ In-service coursework in vocational education

_____ Experience in business or industry that is related to vocational education programs

_____ Other vocational education related training and/or experience (specify): _____

8. For your typical counselor, please give the percent of time of the total counseling effort devoted to the following activities:

_____ % Counseling students with personal problems

_____ % Assisting students in job placement

_____ % Assisting students in selecting or scheduling courses

_____ % Assisting students desiring information about further educational opportunities

_____ % Obtaining financial assistance for students

_____ % Dealing with attendance or discipline problems

_____ % Gathering information for reports, filing reports, and other administrative matters

_____ % Recruiting students

100 %

9. Does your school maintain a collection of occupational information materials?

Yes No

If yes, check which of the following sources from which you obtain materials: (check all that apply)

<input type="checkbox"/> B'nai B'rith	<input type="checkbox"/> Military Services
<input type="checkbox"/> Chronicle Guidance Publications	<input type="checkbox"/> Professional Organizations & Societies
<input type="checkbox"/> ERIC Clearinghouse	<input type="checkbox"/> U.S. Government Publications
<input type="checkbox"/> Literature from Business & Industry	<input type="checkbox"/> State of Indiana Publications
<input type="checkbox"/> Manpower Administration	<input type="checkbox"/> Other (specify) _____

Who is responsible for cataloguing, updating, and evaluating this information? (check all that apply)

<input type="checkbox"/> School librarian	<input type="checkbox"/> Counseling staff
<input type="checkbox"/> Special school personnel assigned this task	<input type="checkbox"/> Other (specify) _____

(Question #9 continued on next page)



(Question #9 continued):

How are students exposed to these materials? (check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Group counseling activities | <input type="checkbox"/> Students use materials on their own |
| <input type="checkbox"/> Individual counseling activities | <input type="checkbox"/> Teacher(s) distribute and/or discuss materials with students |
| <input type="checkbox"/> Career exploration/information courses | |

10. Does your school provide job placement services to vocational education students?

- Yes No

If yes, indicate which type of service is provided: (check all that apply)

- Cooperative program between school and state employment service
- Vocational teachers inform students of job openings
- Placement office maintains and updates file of job openings
- Placement officer assists students
- Other (specify) _____

11. Does your school conduct follow-up studies of its vocational education students?

- Yes No

If yes, which of the following studies are conducted? (check all that apply)

- Vocational education program graduates are followed-up using a survey instrument
- Vocational education program dropouts are followed-up using a survey instrument
- Vocational education program graduates are followed-up informally through contacts with teachers, counselors, etc.
- Vocational education program dropouts are followed-up informally through contacts with teachers, counselors, etc.
- Employer surveys are conducted

Questions which follow seek information about both the philosophy and methods of vocational education student recruitment.

12. Which of the following two approaches to recruiting students for vocational education programs is most often used in your school? (check one)

- Publicizing individual program offerings
- Publicizing vocational education opportunities in general

13. Who in your school has primary responsibility for recruiting vocational education students? (check one)

- | | |
|---|--|
| <input type="checkbox"/> Dean/vice president | <input type="checkbox"/> School counselor(s) |
| <input type="checkbox"/> Placement officer | <input type="checkbox"/> Vocational teacher(s) |
| <input type="checkbox"/> Director of student services | <input type="checkbox"/> Other (specify) _____ |

14. On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of importance to your school the following four perspectives which deal with recruitment:

Rank Order
1, 2, 3 and 4

- Recruitment is public relations--an advertising function involving the distribution of information on program offerings and school characteristics to students, parents, and the general public
- Recruitment is community education--increasing citizen awareness about opportunities and advantages of vocational education and thereby increasing school enrollment
- Recruitment is identification and attraction of students--identifying and aggressively recruiting those students who exhibit a desire and a need for a particular vocational education program
- Recruitment is meeting enrollment quotas--a short-term effort designed to increase specific program enrollment

15. Which of the following statements best describes your assessment of the need to recruit students for vocational education programs? (check one)

- A sufficient number of students always show an interest in vocational education programs; therefore, recruitment is rarely needed.
- Occasionally, a few program offerings do not attract students; therefore, recruitment is used for those programs.
- For the most part our programs can accommodate more students than are enrolled; therefore, recruitment is a continuous effort.

16. Listed below are several recruitment techniques that have been used by vocational educators. Indicate which of these techniques your school has used by checking one of the four boxes to the right of each technique.

<u>Technique</u>	<u>Frequency of Use Scale</u>			
	Often	Occasionally	Infrequently	Never
Radio spot announcements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Television advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tours for interested groups and/or individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career days/career fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pamphlets/brochures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displays in public facilities (e.g. libraries, stores, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displays in secondary schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mass mailings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Representatives of vocational education programs visit schools, businesses, and industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This section of the questionnaire seeks information concerning the philosophy and methods of selecting students for vocational education programs.

17. Which of the following individuals and/or groups of individuals are responsible for formulating admissions policy governing vocational education students? (check all that apply)

- Students
- Teachers
- School counselors
- School advisory committee
- Program advisory committee(s)
- Administrative Staff
- Regional board of trustees
- Other (specify) _____

18. Who most often makes the final decision to admit a student to a vocational education program? (check one)

- Vocational program teacher
- School counselor
- Admissions advisory committee
- Director of student services
- Dean/Vice President
- Other (specify) _____

19. In the current school year, approximately how many students have been denied their first choice of a vocational education program? _____

Briefly describe what happens to those students who are denied their first choice: _____

20. In the process of selecting, from among eligible applicants, those students to be admitted to vocational education programs, which of the following statements apply: (check one and supply information in the blanks provided)

- Students are not tested. Go to question #21.
- Students are tested on an individual basis. Test(s) used: _____
- Students are tested on a group basis. Test(s) used: _____
- Only those students applying for certain programs are tested.

<u>Name of Program</u>	<u>Test(s) Used</u>
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____

IF YOU TEST STUDENTS MOVE ON TO QUESTION #22

21. If you do not test students interested in applying for vocational education programs, which of the statements below best describes your reasons for not testing: (check all that apply)

- Testing all interested students is too time consuming
- We lack available personnel to administer the test(s)
- Tests are poor predictors of student performance in vocational programs
- Testing all interested students is too expensive
- Personnel lack familiarity with available tests, their uses, and interpretation

22. A number of factors may be considered in the process of selecting students for vocational education programs. Examine the list below and check all those factors which your school uses in the selection process. Then, in the column to the right provide the name of the particular test or instrument used (e.g., Kuder Occupational Interest Survey) or the source of the data (e.g., student's cumulative record).

<u>Check Factors Used in Selection</u>	<u>Supply Name of Test/Source of Data</u>
<input type="checkbox"/> Age	_____
<input type="checkbox"/> High school grade point average	_____
<input type="checkbox"/> Achievement test	_____
<input type="checkbox"/> Aptitude test	_____
<input type="checkbox"/> Interest test	_____
<input type="checkbox"/> Student's expressed interest	_____
<input type="checkbox"/> Personality traits/characteristics	_____
<input type="checkbox"/> High school attendance record	_____
<input type="checkbox"/> Prerequisite coursework	_____
<input type="checkbox"/> High school teacher recommendations	_____
<input type="checkbox"/> Occupational readiness/vocational maturity	_____
<input type="checkbox"/> Other (specify) _____	_____

23. Once again consider the number of potential factors used in selecting students for vocational education programs. Assume that you have the resources (e.g., personnel, time, money) allowing you to use any factors you desire. Under these ideal conditions indicate the extent to which you would use the following factors:

Factor	Ideal Frequency of Use		
	All the time	Sometime	Never
Age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school grade point average	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achievement test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aptitude test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interest test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student's expressed interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personality inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school attendance record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prerequisite coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High school teacher recommendations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test of vocational maturity/ occupational readiness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. Does your school combine a number of factors (e.g., high school records including attendance, grade point average, teacher recommendations, etc.) in making the decision to admit a student to a vocational education program?

Yes No

If yes, which of the statements below best describes how these multiple factors are combined: (check one)

- Person responsible for selecting students (e.g., school counselor, director of student services, etc.) reviews all the factors and exercises professional judgment.
- Factors are assigned weighted point values and total point scores are calculated. Overall scores are then listed from highest to lowest and selection is made by taking the highest score.
- An applicant's score or performance is compared to scores or performance for successful students in vocational programs.
- Other method(s) are used (specify) _____

This final section of the questionnaire consists of two questions regarding vocational education philosophy and policy. The last question asks you to identify areas in which assistance may be needed.

25. On a scale of 1 to 4 (1 being most important and 4 being least important) rank in order of their importance for vocational education programs at your school the following four policy statements:

Rank Order

1, 2, 3 and 4

- Meeting the manpower needs of local business and industry (e.g., the number of job openings to be filled)
- Meeting the vocational interests of students (e.g., providing programs and services students indicate they want)
- Meeting the vocational skill training needs of students (e.g., providing programs and services that best meet the needs of students lacking employability skills)
- Meeting the general vocational needs of students (e.g., developing students' ability to make vocational decisions, introducing students to the world of work, etc.)

26. Does your school have a written policy (guideline) or philosophy regarding vocational education student recruitment and selection?

Yes No

(If such statements are available, we would appreciate your sending us copies along with your completed questionnaire)

27. Which of the following materials and/or activities would be of use to you? (check all that apply)

- Handbook explaining exemplary admissions policies/selection methods
- Handbook explaining recruitment techniques/procedures
- In-service workshops for vocational counseling staff on student selection procedures
- In-service workshops for teachers on vocational guidance and vocational development
- Consultant services in vocational student recruitment/selection
- Other (specify) _____
- _____
- _____

THANK YOU FOR YOUR RESPONSES; ALL WILL BE HELD IN STRICT CONFIDENCE. PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED ENVELOPE. NO POSTAGE IS REQUIRED.

Appendix C: Original and Follow-Up Letters Soliciting Information from State Directors of Vocational Education



INDIANA UNIVERSITY

SCHOOL OF EDUCATION

DEPARTMENT OF VOCATIONAL EDUCATION

Education Building 216
3rd and Jordan
Bloomington, Indiana 47405
812-337-8104
812-337-0141

Dear

Pursuant to a general need for assessing the impact of vocational education supportive services in the areas of student recruitment and counseling, our research office has recently launched a project designed to assess the current vocational education student recruitment and selection practices in the public schools of Indiana. This letter is a request for your assistance in the project.

The project involves three broad objectives: (1) to ascertain the state of the art and to describe the nature and scope of vocational education student recruitment and selection practices currently being used in other states; (2) to determine the effectiveness of the recruitment and selection practices currently employed in vocational education programs in Indiana; and (3) to develop a model system to be utilized by public school personnel to expand and/or to improve current practices.

It is in the completion of the first objective that we enlist your support. Would you please provide us with any relevant documents or publications (i.e., manuals, handbooks, guidelines), dealing with the topics of recruitment practices and subsequent selection procedures for students in vocational education programs in your state. Our concern is with programs serving all target populations in need of assistance in selecting and preparing for an occupation. We are particularly interested in systematized student recruitment and selection systems that we may include in our review of the state of the art. Furthermore, we would appreciate any materials within your purview concerning state-wide or school-district-wide programs in career education that prepare students for making vocational choices upon entry into high school and thereby function as ad hoc selection and recruitment systems.

Indiana University at Bloomington and Indiana University-Purdue University at Indianapolis

Page 2

In return for your cooperation in helping us to assemble this information and for allowing us to cite your material in our study, we will be happy to provide you with a copy of the monograph describing the model system that we develop. We expect that this publication will be available for distribution next fall. Thank you for your time and consideration in this matter.

Sincerely,

James A. Pershing

James A. Pershing
Assistant Professor

JAP:sis

Send materials to:

James A. Pershing
223 South Jordan
Bloomington, IN 47401

120



INDIANA UNIVERSITY

SCHOOL OF EDUCATION

DEPARTMENT OF VOCATIONAL EDUCATION
Education Building 216
3rd and Jordan
Bloomington, Indiana 47405
812-337-8104
812-337-0141

Dear

As we near the completion of our review of exemplary state practices in vocational education student recruitment and selection, we wish to remind you that we would appreciate the opportunity to cite material from your state in our study. You may recall from my letter dated January 23, 1978 that we are seeking two types of information:

1. Documentation of admission or selection procedures for vocational education students at the secondary and post-secondary levels, including admissions policy, criteria and instruments employed, and personnel involved in operationalizing the policy.
2. Documentation of recruitment policies, practice and techniques employed in reaching the market potential vocational education students at the secondary and post-secondary levels.

If your office does not have this information within its purview, perhaps you could supply us with the names and addresses of local education agency administrators whom you believe might have material valuable to our study.

Your sharing of information with us in these highly critical areas of student recruitment and selection will not only serve to aid us in the development of a model system but it will also inform others of your exemplary work through the dissemination of our study.

Indiana University at Bloomington and Indiana University-Purdue University at Indianapolis

Page 2

Thank you for your time and consideration in this matter. I hope to hear from you soon.

Sincerely,

James A. Pershing

James A. Pershing, Ph.D.
Project Director

JAP:sls

Please send materials to:

Dr. James A. Pershing
Indiana University
Department of Vocational Education
223 S. Jordan
Bloomington, IN 47401