

BASIC COMPETENCIES NECESSARY FOR ADMINISTRATORS
OF VOCATIONAL AND TECHNICAL EDUCATION

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PREFACE

This dissertation is concerned with the identification of a set of basic competencies which might be considered necessary for administrators of vocational and technical education programs and the extent of agreement among vocational-technical administrators and their chief school officers relative to the importance of the identified competencies.

Questionnaires were sent to practicing administrators of vocational and technical education programs and their chief school officers in area vocational schools, metropolitan school systems, and junior colleges and statistical analyses were made of the returned data to determine if any significant differences existed in responses from the different groups of administrators surveyed.

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CHAPTER I

INTRODUCTION

Vocational-technical education is being recognized today as one of the most significant segments of American education. Enrollments in vocational and technical education have more than doubled in the past five years and Sidney Marland (1970), U. S. Commissioner of Education, says that "career education" must receive an even greater emphasis in years to come. The United States Congress has legislated more support for vocational-technical education in the last one and one-half decades than in all of its previous history combined and is now showing signs of increasing interest in its further expansion.

A recent document published by the U. S. Department of Health, Education, and Welfare, (1970) lists approximately 70% more area vocational schools for 1970 than were recorded for 1967 and the American Association of Junior Colleges (1969) reports that new junior colleges are being opened at the rate of more than 50 per year with considerable emphasis being placed upon programs for vocational and technical education. Also, the metropolitan school systems are presently undergoing an extensive expansion of their vocational and pre-technical offerings. "Since the passing of the Vocational Education Act," states Thomas Dean (1967), "there has been a revitalization of occupational education at the senior high school level."

Generally speaking, the United States has responded in a positive manner to the reported needs for new and expanded institutions and facilities for vocational and technical education. However, another problem has been created in the process - that of providing faculty and administrators for their effective and efficient operation. Unfortunately, this is an area of education in which teaching and administrative personnel shortages are rather acute. The number of qualified teachers and administrators with experience and educational preparation in vocational-technical education is extremely small (Roney, 1968).

The task of recruiting and preparing instructional staff for new classrooms and laboratories is a difficult problem in itself. An even greater problem, however, is the pressing need for administrative leadership in this area - for people who can initiate and coordinate such activities as program planning, curriculum development, laboratory development, organization of facilities, financial planning, student selection, teacher selection and orientation, industrial relations and student placement, and so on, through a long list of necessary functions and make them relevant to the needs of present and future students and society. Few people are available who can fill these positions and be effective in them (Roney, 1968).

The United States Congress indicated its awareness of this and other educational problems by passing, in 1967, the Education Professions Development Act (EPDA), at least one part of which is directed to assisting universities in developing new graduate programs for preparing administrators and other types of leadership personnel (Committee on Labor and Public Welfare: United States Senate, 1968). In addition to reflecting the many recent developments and trends in the field, the new

graduate programs will be designed to prepare individuals for meeting the challenges which will arise from further technological change. That such programs must be new and different is obvious. What is not so obvious, however, is the curriculum content which should go into graduate programs for the development of administrative personnel and the extent to which it should differ for those preparing for administration in junior and community colleges, area vocational schools, and comprehensive high schools if, in fact, it should differ at all.

Statement of the Problem

Institutions and programs for vocational and technical education in recent years have been expanding at an unprecedented rate. "One of the real problems in the establishment and operation of such schools," says London (1969), "has been that of securing competent local directors knowledgeable of the purpose and administration of vocational education." He states further that "The problem of knowing just what sort of person is needed for this job has bothered us all." An additional problem which relates to but actually transcends these, and on which this study was based, is the lack of descriptive information relative to the basic competencies necessary for those who serve in such positions. Several studies have been conducted to determine the characteristics of occupational education administrators. The greater problem currently, however, is the need to know the major subject matter areas in which one must be proficient in order to be an effective administrator in the field of vocational-technical education.

Purpose of the Study

The purpose of this study was to identify the basic competencies necessary for individuals who administer vocational and technical education programs. An attempt was made in the study to determine which of the identified areas of competency are common to vocational-technical administration in junior colleges, area vocational schools, and metropolitan school systems as well as to determine those competency requirements which are unique, but necessary, to each.

The purpose of this study can be indicated more clearly perhaps by the following questions which it seeks to answer.

1. How will a set of selected competencies, which might be considered necessary for the effective administration of vocational-technical education programs, be rated by practicing vocational-technical administrators and their chief school officers? Will there be significant differences? Will there be areas of common agreement?

2. Will the ratings given to the selected competencies by the vocational-technical administrators differ significantly as a function of various factors in their professional background, such as

✓ a. level of educational attainment (highest college degree obtained),

✓ b. relative age as indicated by the time since obtaining their baccalaureate degree,

✓ c. number of years of administrative experience,

✓ d. number of years of business and/or industrial experience,

✓ e. area of previous teaching specialization, and

✓ f. major area of study for their highest college degree?

Need for the Study

The tremendous growth in occupational education in recent years has been accompanied by significant changes in the needs of both students and industry and consequently in institutional organization, program implementation, and administrative responsibility. Vocational-technical education has entered a new age in America and university graduate programs for the preparation of administrators for this field are being challenged to implement these changes in their graduate curricula. Schaefer (1966) discusses this issue and concludes that a "new breed" of leadership for vocational and technical education must be developed. Katz (1966) feels that "Perhaps the most general conclusion that can be reached is that the leaders in technical and vocational education can no longer follow their specialized and narrow fields." Hendrickson (1966) says in this regard that such programs must ". . . take a fresh approach fitted to present and oncoming conditions." He goes on to point out that ". . . insofar as content and specific methods are concerned, the question arises as to what kinds of additional skills, knowledge, understanding, and insight should be provided . . ." In general, the literature is saying that if graduate programs are to prepare administrators for functioning effectively in this new age of vocational-technical education, their content must reflect the current and projected requirements of the positions in which their graduates ultimately will be placed. The basic competencies necessary for those who will serve in these positions must be determined so that the graduate programs in which they study will indeed be relevant to the job responsibilities for which they are being prepared.

As indicated previously, a number of recognized authorities in the field who are responsible for preparing administrators of vocational and technical education programs have indicated that the development of the "real-job competencies" must be an integral part of the prospective administrator's preparatory experience. At the same time, however, there seems to be considerable concern for an apparent lack of data to indicate what many of these areas of competency actually are.

The need for this study, therefore, is a direct result of the requirement for more descriptive information relative to the basic competencies necessary for administrators of vocational and technical education.

Scope of the Study

This study was limited to vocational-technical education administrators and their chief school officers in public junior and community colleges, area vocational schools, and metropolitan school systems. Technical institutes were not included because their programs are generally restricted to the preparation of technicians only and do not include vocational education *per se*. In addition, their numbers are relatively small compared with junior and community colleges. In an effort to include only full-time or near full-time vocational-technical education administrators in the survey, institutions and school systems with relatively large enrollments were selected. Only junior and community colleges with enrollments of 1600 or more and metropolitan school systems with total enrollments of 28,000 or more were included based on the assumption that the administrators of their vocational and technical education programs probably would serve full-time in that capacity.

One area vocational school was randomly selected from each state. Because, in most states, either the State Director of Vocational Education or his designated Coordinator of Area Schools is responsible for approving the credentials and ultimate employment of area school directors, this person, for the purpose of this study, was considered to be the chief school officer for area vocational schools.

Briefly restated, this study involved six distinct groups of administrators from three different types of educational institutions.

Assumptions

The design of this study was based upon three major assumptions:

1. It is assumed that the experiences of most practicing occupational education administrators have enabled them to develop a unique awareness of the major subject areas in which one must be competent in order to function effectively in such positions.
2. It is assumed, also, that the chief school officer who has ultimate responsibility for the quality, operation, and success of the total school program and who has responsibility for employing and retaining the individual who administers his occupational education programs has developed a special insight into many of the basic competencies necessary for those who serve in such positions.
3. An additional assumption of this study was that those individuals selected for the survey responded deliberately and in sincerity to the questionnaire items.

Definition of Terms

✓ *Vocational-Technical Education*, frequently referred to as "occupational education" and "career education," is a broad generic term used to include various educational programs which integrate occupational and general education curriculum content for a resulting "unified approach" to the preparation of individuals for career employment and for

continued study. The U. S. Department of Health, Education, and Welfare (1967) describes occupational education broadly as including programs in secondary schools, junior colleges, and adult education programs which are ". . . designed primarily to prepare pupils for immediate employment or upgrading in an occupation or cluster of occupations." As the name implies, vocational-technical education consists of two major categories - vocational education and technical education - which are differentiated primarily by the educational level at which they are offered.

Vocational Education is specialized to a certain extent in that it prepares individuals to become immediately productive, upon graduation from the program, in entry level jobs as non-professional specialists in business and industry and in the service areas. Vocational education is defined by Hopke (1968) as "Education intended to prepare for entrance into a specific vocation, or for upgrading of persons already employed. The term is commonly limited to vocations below the collegiate level in preparation . . ." Hopke concludes that vocational education includes ". . . all types of training which have as their objective the specific preparation of an individual for earning his living at a specific kind of work." Graduates from vocational programs are prepared for employment in positions such as skilled craftsmen, machine operators, mechanics and repairmen of various types, specialists in human services, etc. as well as for further education at the college or university level. Vocational education as provided by the public education sector of our society is offered generally at the secondary level in comprehensive high schools, area vocational schools, trade schools, and, to a lesser extent, in junior and community colleges. In addition to its general education function, vocational education enables individuals (both

in-school youth and adults) to prepare for initial employment, to up-grade skills for their present jobs, and to re-train for career changes. Vocational education includes such specialized areas as agriculture, home economics, trades and industry, distributive occupations, business and office occupations, and health.

Technical Education, known alternately as "semi-professional" or "para-professional" education is less specialized than vocational education in that it is designed to prepare individuals for employment as para-professionals (professional support personnel) in any one of several entry-level jobs within a particular field of technology. The U. S. Department of Health, Education, and Welfare (1967) describes technical education as "A junior college or adult education program of studies designed primarily to prepare pupils for work in the occupational area between that of the skilled employee and the professional employee such as the physician, engineer, and scientist." Because para-professionals are now being prepared in non-technical fields, the current trend is to regard Technical Education as a *level* of education rather than as education in a special area. Indicative of the non-engineering and science related areas represented in technical education are such fields as the business technologies, the health and medical technologies, the agricultural technologies, the journalism technologies, etc. and even the educational technologies.

Occupational Education is generally used synonymously with vocational-technical education (see vocational-technical education above).

Prevocational Education is "orientation to a number of different occupational areas and counseling designed to assist a person in

determining the occupational area(s) in which he might best be trained."
(U. S. Department of Health, Education, and Welfare, 1967)

Pretechnical Education is generally offered at the high school level in comprehensive high schools and area vocational schools. It differs from the vocational program in that the objective of pretechnical programs is to prepare individuals specifically to enter technical institutes or junior college technical programs upon graduation from high school rather than to go directly into the labor market.

Technicians or "para-professionals," in general, work in direct support of the professional groups in their respective fields of endeavor. The engineering technicians, for example, support the professional engineers; the medical technicians support the physicians or other professionals in the field; the management technicians support the professional management groups, etc. The particular employment level for which technicians or para-professionals are prepared requires a knowledge of professional theory and methods which is beyond the level and scope of the craftsman's or specialist's education and training. It requires, in addition, a more practical background and greater development of manual skills for supporting the professional than is normally provided in contemporary professional education.

Specialists (in business or industry), often referred to as "trade specialists" or "craftsmen," are those individuals who have had intensive educational preparation for specific, operation-type occupations such as radio and television repair, electrical construction and repair, industrial drafting, auto or diesel mechanics, mechanical fabrication, cosmetology, etc. Also, for the purposes of this study, the term

specialist will include those individuals who work in the established crafts such as bakers, boilermakers, carpenters, machinists, etc.

Metropolitan School System is used in this study to indicate a medium to large city, multi-school system which is administered by a superintendent of schools with a staff of assistants who are responsible for administering the various components of the total school program. Examples of the "components" of the total school program are: counseling and guidance, curriculum development, vocational-technical education, etc.

Comprehensive School System indicates a public school system which provides a broad offering of curricula including college preparatory, general education, and vocational-technical programs. The U. S. Department of Health, Education, and Welfare (1967) defines the comprehensive school or school system as one ". . . with a number of departments (e.g., academic, industrial, business, vocational) offering a diversified program to meet the needs of pupils with varying interests and abilities."

Area Vocational Schools are centralized vocational high schools which provide vocational education opportunities for students from several surrounding high school districts which cannot, for financial reasons or lack of sufficient enrollment, afford to offer large numbers of vocational programs in their own individual schools. Students, generally, are transported by bus to the *area vocational school* for one-half day of instruction in vocational and related subjects and returned to the home school for the remaining half-day of general education and home-school activities.

Junior Colleges, according to Hopke (1968), are ". . . two-year institutions of higher education . . . [which] . . . may offer only a

transfer or university parallel curriculum, but more often also an occupational curriculum and other types of curriculum such as general education, adult education, short courses, special lectures." "When a two-year institution offers the comprehensive curriculum described above," he says, "it may also be referred to as a community college." The associate degree is usually awarded upon successful completion of a prescribed two-year program.

Technical Institute, as defined by the U. S. Department of Health, Education, and Welfare (1967), is "An institution, or a division of an institution, offering instruction primarily in one or more of the technologies at the post-secondary instructional level." It provides technician or para-professional education primarily in the engineering and science related technologies and usually awards the associate degree to students upon their successful completion of a regular prescribed program.

Administrator of Vocational-Technical Education is used in this study to indicate those individuals who have been assigned responsibility for administering vocational and technical education programs in their institution or school system. In a metropolitan school system, with comprehensive high schools, this usually is the individual who serves as the director of all vocational, technical, and sometimes industrial arts programs for the total school system. In area vocational schools, this is the director, principal, or superintendent of the school. In junior colleges, this usually is the dean or director of the vocational-technical division.

Chief School Officer is the chief administrative official or the person with ultimate authority in the institution or school system. In

the metropolitan school system it generally is the superintendent of schools; in the area vocational school, for this study, it is considered to be the state director of vocational education or his designated coordinator of area schools because this person, in most cases, must approve a prospective area school director's credentials before he may be employed in the school; in junior colleges it is the college president.

CHAPTER II

REVIEW OF THE LITERATURE

The overall purpose of this study was to identify the competencies which are of major importance for those who administer vocational-technical programs in this "new age" of education and to determine which are common to vocational-technical administrators in area vocational schools, metropolitan school systems, and junior colleges.

The changing ideals, values, and needs of the Nation's population today are bringing about significant changes in American education with a resulting re-orientation of the total educational system. The needs for administrative personnel and the competencies required of them, therefore, are becoming increasingly important to education decision-makers as they plan to meet the emerging needs.

This chapter gives an overview of the need for programs and professional staff in vocational and technical education, legislation for leadership development in the field, and competencies considered necessary for vocational and technical education administrators.

Need for Vocational and Technical Education

As a part of the new trend for relevancy in education, vocational-technical education is rapidly moving into the mainstream of America's total educational effort. It is being recognized today as one of the

most significant components of the American education system (Marland, 1971). The United States Congress has enacted more significant legislation in support of vocational-technical education in the last one and one-half decades than in all of its previous history combined. Educational leaders are becoming more aware of the educational system's past shortcomings in this area and are realizing the value of vocational-technical education for meeting the needs of the general student population (Marland, 1971). Business and industry, on the other hand, are recognizing the value of the team approach in their work activities and the potential contributions of individuals with specialized work-oriented education. They are realizing further that productivity and manpower efficiency can be increased substantially by matching more closely their various work requirements with the educational preparation of those whom they employ. As a result, American employers are reporting that their current and projected needs for persons with vocational and technical education are more than twice the current and projected supply (U. S. Department of Labor, 1966 and 1969).

The development and expansion of programs to meet the increased need for individuals with special educational preparation generates a demand for additional instructional and administrative personnel to staff those programs. The increased need for such personnel depends in large measure, of course, on the level of enrollment, which reflects to a certain extent the need for graduates from these programs.

A document prepared by the U. S. Department of Labor (1966) reports that, during the period 1963-1975, the need for *new technicians*, in addition to those currently in the labor force, will be in the order of 1,025,000, or an average of about 86,000 new technicians per year.

Though this represents a relatively large number of specially prepared people, many researchers and authorities in the field believe that this estimate is considerably low (Bowen, 1968). The Department of Labor document reveals further that although this country will actually graduate approximately 666,000 technicians during this period, records of past trends indicate that only about sixty-five percent of the graduates can be expected to enter technician occupations. Therefore, of the 666,000 technicians which this country will graduate during the 1963-1975 period, only about 433,000 will actually enter technician occupations and contribute toward meeting the described need. Based on this information, the United States will experience during this period a technician shortage in the order of 591,000. The present rate of supply is slightly less than half that required to meet the projected technician demand.

The current and projected needs for skilled specialists including operators, craftsmen, and shop foremen is even more severe. The U. S. Department of Labor (1969) estimates the need for this group to be in the order of 8,530,000 persons for the 10-year period of 1965-1975. It is reported further by this agency that, of all the 1967 graduates from vocational programs in the United States, only 411,100 actually entered the types of jobs for which they were prepared. Using this figure as an annual average for the 10-year period (which will not be completely accurate) implies that, at the current rate, there will be a total of about 4,111,000 persons placed in such jobs. This, as was indicated for the technicians, is slightly less than half that required to meet the projected need.

Though current enrollments in vocational and technical education are far short of the demand for graduates of such programs, recent assessments and projections indicate that they are growing at an unprecedented rate. The U. S. Department of Health, Education, and Welfare (1970) records the 1969 enrollment in vocational-technical education at just under 8 million which is an increase of approximately 89 percent over the 1963 enrollment.

An earlier publication by the U. S. Department of Health, Education, and Welfare (1969) has estimated that the vocational-technical education enrollment will reach 14 million by 1975 with a significant increase in the need for instructional and support personnel.

The Need for Professional Personnel in Vocational-Technical Education

The new direction of vocational-technical education and its rapid growth and movement into the front ranks of the American education scene have brought about significant and serious personnel problems which must be dealt with forthrightly. The most obvious, of course, is the critical shortage of qualified educators to staff the new institutions and expanding programs. With increased enrollments comes the need for greater numbers of instructional staff and support personnel. The U. S. Department of Health, Education, and Welfare (1969) estimates that by 1975 there will be a need for a total of almost 260,000 vocational and technical education teachers, approximately double the number employed in 1967. Averaged over the eight-year period, this amounts to an increase of about 16,250 new teaching positions per year in addition to the number of new teachers needed to replace those leaving the system

due to retirements, deaths, and other reasons. These estimates are based on the normal growth of the traditional programs now in existence and do not take into account the possible emergence of new types of programs and new approaches to the total educational process such as the initiation of "occupational awareness" or "career development" programs.

The greatly increased need for teachers to staff the new classrooms, shops, and laboratories is obvious. Equally important, however, is the need for a sufficient number of capable individuals with appropriate preparation for administering the programs and the more basic need to know the skills and competencies necessary for those individuals to perform effectively in such positions.

The U. S. Office of Health, Education, and Welfare (1969) estimates that the need for vocational-technical education administrative personnel (directors and supervisors) at the local level will reach a total of 5,675 by 1975. This is an increase of almost 50 percent over the number of persons estimated to be employed at that level in 1970. Averaged over the five-year period, this amounts to an increase of about 345 new administrative positions per year in addition to the number of new administrators needed to replace those leaving the system due to retirements, deaths, and other reasons. As with the projections for vocational and technical teachers, these estimates are based on the normal expected growth of the traditional programs now in existence and do not take into account the possible emergence of new types of vocational programs.

Though this study has not included administrative personnel at the State level, this is an extremely important group which has considerable influence on vocational-technical education administration at the local

level. The U. S. Department of Health, Education, and Welfare (1969) estimates that the number of administrative positions at this level will increase by 575 to a total of 1920 between 1970 and 1975. As indicated previously, these figures do not include replacements needed for various reasons.

The need to prepare new personnel and up-grade existing ones for administrative roles in vocational-technical education has been pointed out by several studies and by individuals who are recognized authorities in the field. Darrell Ward (1968) told participants at a National Seminar on Technical Teacher Education, for example, that "Vocational education is currently experiencing the greatest need for appropriate and capable leadership in all developmental and operational aspects of its program." Ward is particularly concerned about the need for developing and improving the skills and competencies of those individuals who are presently serving in administrative capacities but who have not had adequate or up-to-date preparation for such responsibilities. "Need currently exists," he says, "for both in-service and pre-service programs for leadership education."

Stevenson (1966) surveyed state departments of vocational and technical education and their designated university teacher education departments to determine the needs for supervisors, researchers, and teacher educators. He found that the present rate of supply of potential administrators with master's and doctor's degrees is less than one-third of the number needed. "The supply of trained personnel at all levels," Stevenson says, "may be the most critical limiting factor in meeting the demands now facing vocational education."

The growth and expansion of the junior college movement has caused many people to express concern about the need for capable personnel to fill the administrative positions in the developing institutions. Roueche (1968), for example, stated that "With new junior colleges opening at the rate of more than one per week and the estimated demand for new chief administrators subsequently reaching 100 annually (between 1965 and 1980) a shortage of qualified personnel to serve in top administrative positions has become evident."

Miller (1967) writes that one of the major problems in the further development of vocational-technical education is

. . . the critical need for administrators who are qualified to plan, implement, operate, and evaluate occupational programs. This includes the capability to efficiently inaugurate programs from the planning stages through the necessary procedures of building, staffing, equipment purchasing, curriculum development, student recruitment, placement, and follow-up.

Miller goes on to say that the shortage appears to be acute in both existing and newly developed institutions and even in state departments of education.

The shortage of personnel who are adequately prepared to administer institutions and programs for vocational-technical education appears to be a crucial factor in its continued development. Fortunately, however, the need has been recognized and steps are being taken to alleviate or decrease the effects of the problem. One of the most significant activities in support of this effort has been recent legislation at the federal level.

Legislation for Vocational-Technical Education

Leadership Development

Congressional concern about the need for, and the development of, vocational and technical education has been one of the major factors in its reaching its present state. Most of the Congressmen and others who are proponents of vocational-technical education realize that funding for local level programs alone is not sufficient to insure that such programs achieve their full potential and expectations. Administrative leadership is an essential ingredient and Congress has recognized this in recent legislation actions.

Arnold (1970) says that "Recent Congressional action has been a catalyst not only for reviewing and restructuring the priorities and goals for vocational and technical education, but has also exhibited both implied and stated concerns for developing the leadership required for attainment of those goals."

Probably the most significant piece of legislation ever enacted in support of vocational-technical education leadership development came about as a part of the Amendments to the Vocational Education Act of 1963. Title II of the Amendments, which was concerned with professional personnel development in vocational-technical education, was moved under the Educational Professions Development Act (EPDA) and made Part F of EPDA for administrative purposes. The U. S. Department of Health, Education, and Welfare (1969) has reproduced the Act in its entirety and made it available to the general public.

Part F of EPDA is divided into several categories, Section 552 of which deals with *Leadership Development Awards*. Under Section 552, grants may be made to help meet the needs for qualified vocational and

technical education leadership personnel. Stipends may be provided to enable experienced vocational educators to devote full-time to advanced study for a period not to exceed 3 years. In addition, institutional support may be provided to selected institutions for developing comprehensive, graduate-level programs in vocational-technical education. The intent of Congress in this part of the Act is clear - to develop a cadre of vocational education leadership personnel and to develop the capacity of institutions of higher education for preparing additional personnel for leadership roles in this field.

Though programs are just beginning to be initiated under this portion of EPDA, it has the potential for bringing about significant changes in the field of vocational-technical education.

Competencies Required for Administrators of Vocational-Technical Education

At this point in the literature review, the search was focused on determining the basic areas of competency which various studies and knowledgeable individuals in the field had indicated were necessary for effective administration in vocational-technical education. Many of the general competency areas included on the original, pilot study questionnaire were obtained from this portion of the review. Most of the competency areas identified here remained on the final questionnaire in general substance, if not in original form.

The literature, in general, indicates that the need for better qualified administrators of vocational-technical education is widely recognized in the field. There still seems to be lack of agreement, however, regarding what one needs to know and the competencies he must

possess to be an effective administrator in vocational-technical education. Few reports were found of studies which related directly to the problem though several position papers were available which presented the authors' views on the subject.

Arnold (1970), who has done a considerable amount of work in this field, says that

Much of the present graduate education for preparation of vocational and technical education leaders shows little evidence of conscious attempts to relate preparation to the actual roles and responsibilities of the positions. Rather, most has been based on institutional policy, availability of teaching and program resources, and the professional intuition of the program planners and advisers.

A limited number of institutions have initiated new programs or revamped old ones in an attempt to correct the deficiency which Arnold describes.

Among the reports of studies related to this issue was one by Wenrich and Hodges (1966) reporting the development of an experimental program to prepare individuals for administrative positions in (1) local school districts as directors of vocational education, (2) intermediate school districts as consultants of vocational and technical education, (3) community college districts for administration of work-oriented programs, or (4) area vocational schools. The program assumed that one common curriculum was satisfactory for preparing administrators at all levels and types of institutions listed above. Wenrich, et al (1968) eventually developed the experimental program into a regular, on-going graduate program the curriculum of which was based on the theory that an administrator of local school vocational-technical education programs must be broadly educated and must be proficient in the following areas:

1. School curriculum, administration, and organization
2. Vocational programs and practices - past, present, and projected

3. Legislation affecting vocational and technical education

4. Survey, follow-up, and job analysis
5. Community labor forecast techniques
6. Personnel and public relations techniques
7. Recognized factors affecting leadership

A report by Green (1966) described a leadership development program for vocational-technical administrators which was conducted by the University of Maryland. The following knowledge areas were considered to be those necessary for occupational administrators and were covered in this program:

1. History of vocational-technical education
2. Implications of vocational-technical legislation
3. Development of leadership skills
4. State plans
5. Counseling and other supportive services
6. Pre- and in-service teacher education
7. Equipment and facilities
8. Research and pilot projects
9. Curriculum development
10. Coordination of activities with other agencies
11. Evaluation of progress
12. State and local supervision

This program was directed primarily to administrators of vocational and technical programs at the secondary school level.

A leadership development seminar was conducted recently by Arnold (1970) at Ohio State University in which a list of competency

requirements was developed for vocational and technical education leaders. These included the following:

1. Curriculum and instruction
2. Evaluation
3. Fiscal responsibility
4. Legislative influence and authority
5. Program and facilities planning
6. Public relations and liaison
7. Research and development
8. Staff development and improvement
9. Student affairs

Marvin Fielding (1966) directed a study of practicing vocational-technical education administrators in public junior colleges to ascertain the actual qualifications and duties of these individuals as well as to determine what they thought to be desirable qualifications for persons in positions similar to theirs. Fielding found the most frequent duties of those persons surveyed to be as follows:

1. working with advisory committees
2. maintaining contacts with business and industry
3. serving as consultants for developing course and program objectives
4. recruiting teachers
5. speaking to lay professional groups
6. orienting new teachers
7. evaluating outcomes of instructional programs

In the institutions which Fielding surveyed, it was generally felt by both the chief administrative official and his occupational education administrator that the largest concentration of graduate work in an

academic program for the potential administrator should be in organization, administration, and supervision of occupational education; principles and practices of occupational education; and occupational curriculum construction.

Butcher (1968) studied the desirable characteristics of vocational department heads as seen by their senior administrator. The purpose of the study was to obtain from persons responsible for personnel selection, their opinions as to what characteristics were desirable in department heads and to determine the existence of a pattern of preference. The characteristics most desired by senior administrators for their subordinate administrators (department heads) were:

1. vocational education background
2. general education background
3. technical knowledge
4. student-centered approach to instruction
5. understanding of basic learning principles

A study of the characteristics of area vocational school directors was conducted by Polk (1969). It was found in this study that the most common undergraduate major of area school directors was practical arts. The next most common area was a vocational specialization and third was what was termed an academic major. Approximately half of the directors who had completed graduate work had done so in a vocational education field of specialization. Slightly less than half of the directors who reported having had graduate work indicated that it was in educational administration. The directors reported a mean of just under seven years of occupational experience with an equal amount of time as a classroom teacher prior to assuming their administrative position. More than half

of the directors (56%) reported that their teaching experience was in trade and industrial education. The average time spent in administration was 9.4 years of which 7.8 years was in vocational-technical administration.

Barlow and Reinhart (1969) directed a recent study on the profiles of trade and technical leaders. This study indicated that the administrators whom they surveyed had an average of 7.8 years of teaching experience before assuming their administrative positions. Slightly more than half of those surveyed (55%) had teaching experience in trade and industrial education. At least a bachelor's degree was held by 76% of those surveyed while at least 67% held a master's degree and 12% held doctorates.

A number of papers have been written by persons who are outside the traditional field of vocational education but who have specific ideas and views on the competencies necessary for one to function effectively as an administrator of vocational-technical education. Conrad Briner (1968) says, for example, that the administration of education must be organized to insure that seven major functions are carried out:

1. sensing emerging needs for educational development and for related changes in the educational system
2. assigning priorities and allocating resources
3. designing new educational programs and services
4. evaluating both new and established educational programs and services.
5. disseminating information regarding new programs
6. encouraging and supporting the adoption of new and approved instructional programs and services
7. assuring the quality of educational offerings

The educational administrator, Briner says, must be competent in all of these areas.

Burton Clark (1964), a sociologist, says that "Economic, demographic, and political trends are the three major forces affecting the educational system," and maintains that the prospective administrator must be steeped in these disciplines.

A social psychologist, Daniel Katz (1966), writes that programs for preparing leaders in occupational education must be ". . . as broad and deep as the other disciplines." He contends that such persons must be not only specialists in an occupational field, but they must be behavioral scientists as well. It is imperative, he says, that administrators of occupational education programs be able to understand and assess the trends of environmental and social change. Katz maintains that leaders for occupational education must be able to competently consume behavioral science research and to comprehend the complex interrelationships of our social system and its many component subsystems. He further states that occupational leadership training programs should be based on a core of five sub-areas:

1. Research methodology
2. Human learning and performance
3. Group dynamics
4. Personality and motivation
5. The social psychology of organizations

Other ideas have been presented by such people as Coe (1966) who says that graduate programs for leaders in occupational education should be updated in terms of present day needs. He states further that the programs should cover all vocational educational services, yet leave

room for some specialization. Coe says that graduates from such a program should have:

1. an understanding of principles and practices in occupational education
2. an understanding of the related disciplines
3. leadership skills
4. a knowledge of employment practices and trends
5. an understanding of legislation trends and laws
6. experience in applying knowledge and skills in developing programs

Much of the literature has indicated that prospective administrators of vocational and technical education must be trained in the basic areas of identifiable and definable competencies but that their ultimate success in administration depends on more than just this. They must develop a complete understanding of the interrelationships between the identified competencies and areas of responsibility. Duryea (1966) says, for example, that in addition to the types of basic competencies identified in this review of literature, an ultimate understanding of administration in education requires analysis of each role of the following three elements:

1. Administrative Process: What elements are involved in the making and implementing of policies and other decisions?
2. Structural Relationships: What are the roles and relationships of administrative officers and bodies? What influences do various governing units have on institutional policies? What is the "flow of authority" in administration?
3. Institutional Setting: What influences do informal groups and personal relationships have on administrative decisions? What influences in educational organizations limit or foster possible courses of action? What external pressures influence the making of decisions?

Ward (1968) in discussing leadership development programs for vocational-technical education, writes of the need for ". . . identification of common elements which can be applicable in all leadership education." Duryea (1966) follows this line of reasoning by calling for "A refinement or reorganization of our administrative arrangements . . . [for which] . . . facts and figures need to be assembled; the experiences, insights, new ideas, and theoretical postulates of creative administrators need to be examined."

It was this type of reasoning which resulted in the formulation of the problem for this study. If university programs for the preparation of vocational-technical administrators are to be meaningful and effective, their content must reflect contemporary practices and needs in the types of positions in which their graduates will be placed, as perceived by individuals currently serving in similar positions and institutional administrators who employ them. Thus, as one reviews the literature on this subject and ponders the significance of the information and its implications for the further development of vocational education, the following questions begin to take form:

1. What is the extent to which agreement exists between vocational-technical education administrators and chief school officers of area schools, metropolitan school systems, and junior colleges regarding the basic competencies which one must possess to function effectively as an administrator of vocational-technical education?
2. Do the perceptions of vocational-technical education administrators regarding competencies necessary for vocational-technical administrators have any dependence upon their educational level (highest degree obtained)?
3. Does the age of vocational-technical education administrators or their senior administrator have any influence upon his perceptions of the competencies necessary for vocational-technical education administrators?

4. Does one's major area of study for his highest college degree have any influence upon his perceptions of the competencies necessary for vocational-technical administrators?

5. Does one's major area of study for his undergraduate degree influence his ideas concerning the relative importance of certain given competencies which might be considered necessary for vocational-technical administrators?

6. Is there any relationship between the number of years of administrative experience a vocational-technical education administrator has had and his perceptions of the competencies necessary for one to function effectively in a position such as his?

Answers to these questions should be of considerable importance to those planning or operating graduate programs for the preparation of individuals who will serve as administrators of vocational-technical education programs. However, little information of this nature was found in the literature.

CHAPTER III

METHODOLOGY

This study grew out of the need of trainers of vocational-technical administrators to have more descriptive data on the subject matter areas in which one must be proficient, and the basic competencies one must possess, to be an effective administrator in the field of vocational-technical education. The major purpose of the study was to identify these subject matter areas and competencies and determine which are common to and among administrators of vocational-technical education in area vocational schools, metropolitan school systems, and junior colleges and which are unique, but considered necessary, to each.

Data collection was accomplished by mailing a closed questionnaire to a random selection of vocational-technical education administrators and their respective institutional administrators in an approximately equal number of the three types of educational institutions and systems listed above. Subject matter areas and competencies listed on the questionnaire were obtained from the literature and from the responses and suggestions of a selected group of individuals who were asked to review and criticize the original questionnaire.

The desired information for the study was sought from vocational-technical education administrators and their chief school officers based upon the assumption that their knowledge and experiences had given them a unique understanding of the requirements for this type of

position. The number of administrators included in the study was based upon a predetermined percentage sampling.

Population

One of the major concerns in choosing the participants for this study was to select individuals who were full-time administrators of vocational and technical education programs. Based on a limited survey of educational institutions, it appeared that metropolitan school systems with a total enrollment of at least 28,000 students, and junior colleges with a total enrollment of at least 1600 students, usually employ a full-time administrator of their vocational-technical programs. These figures, therefore, were set as the minimum enrollment which these respective institutions could have in order for their vocational-technical administrators to be included in the study population. Names and addresses of administrators in institutions which fit these criteria were obtained from directories published by the National Center for Educational Statistics (1970), the American Association of Junior Colleges (1969), and the U. S. Department of Health, Education, and Welfare (1970).

It was determined from the directories that a total of 156 metropolitan school systems and 157 junior colleges had enrollments above the minimum figures specified.

Administrators of 47 metropolitan schools and 47 junior colleges were selected to receive questionnaires, based on a sample of 30 percent of the population in each case. For comparison purposes, it was decided that approximately the same number of area vocational school administrators should be selected from the approximately 240 which fit the

definition of area vocational schools as used in this study. Thus, one area vocational school director was randomly selected from each of the 48 states within the continental United States. The State Director of Vocational Education or the person whom he had designated as coordinator of the State's area vocational schools was considered, for the purpose of this study, to be the vocational-technical administrator's superior officer to compare with the chief school officer of the other types of institutions.

In summary, the population included the 156 metropolitan school systems with enrollments of 28,000 or more, the 157 junior colleges with enrollments of 1600 or more, and the 240 area vocational schools which actually served a multi-school district and which were, in fact, secondary schools.

Instrumentation

The instrument used in this study was a 40-item closed questionnaire and a one-page personal data form developed by the investigator (see Appendix A). Each item on the questionnaire represented a broad, though specific, area of competency which might be considered by some to be necessary for one to function effectively as a vocational-technical education administrator. The basic competencies listed on the questionnaire were developed from a review of the literature and from the pilot study critiques of the initial questionnaire.

A special effort was made to develop an instrument which was brief, straight-forward and to the point, and one which would not request excessive or extremely personal information which might not be relevant to the study. The questionnaire contained 40 items some of which were

included because they were thought to be controversial enough to obtain a degree of negative reaction and thus a broad range of response. Four additional spaces were provided at the end of the questionnaire to enable the respondents to write in other items which they felt were important but had been omitted.

The personal data form was designed to elicit the additional information necessary to analyze the relationships sought by the research questions. This study was undertaken with a full realization of the weaknesses of a mailed questionnaire. However, after considering the various inherent constraints of this study, it appeared that this still was probably the most satisfactory technique for obtaining the information.

Data Collection

The literature suggested that meaningful conclusions from the statistical analysis would require a minimum of approximately 30 subjects (Guilford, 1956) if they represented a random sampling of at least 15 percent of the population (Garrett, 1958). Questionnaires were sent, therefore, to 30 percent (47) of the administrators from both the metropolitan school system and junior college populations based upon an expected 65 percent return.

Data for this study were collected by mailing the questionnaire to the selected participants. Each of the six groups of administrators involved in the study received the same questionnaire, though the cover letter differed for vocational-technical education administrators and institutional administrators (see Appendix A).

All questionnaires were mailed out at approximately the same time and each group, except the metropolitan school superintendents, returned about 65 percent, which was considered adequate, so follow-up letters were sent only to the superintendents. The follow-up letters followed the initial letters by six weeks and resulted in only a relatively small number of additional returns. As indicated in Table I, questionnaires were returned from 63 percent of the selected area school directors, 68 percent of the metropolitan school vocational-technical education directors, and 81 percent of the junior college deans. In terms of the total population, this represents 13 percent of the area schools, 21 percent of the metropolitan schools, and 24 percent of the junior colleges.

A bias check of the non-respondents in this study would have been desirable even though the percentage of returns was relatively high. However, due to time constraints and insufficient discriminatory criteria upon which the population was based, such a check was not made.

Statistical Procedure

The raw data obtained from the returned questionnaires were recorded in tabular form for convenience of handling in subsequent analyses and are included in Appendices B and C for information purposes.

Due to the nature of this study, the information obtained is recorded in the form of frequencies which lends itself to analysis by the chi-square method. Chi-square, according to Townsend (1953), is a procedure for testing the significance of the divergence of one set of observed frequencies from another on the basis of the equal probability hypothesis.

The chi-square method of statistical analysis is a non-parametric test which makes less stringent assumptions about the sample and results in conclusions which require fewer qualifications. However, because this study was concerned with the analysis of rather straight-forward and clearly defined issues, this method was judged to be appropriate.

TABLE I
POPULATION, SAMPLING, AND QUESTIONNAIRE RESPONSE DATA

Type of Data	Vocational-Technical Administrators			Chief School Officers		
	Area School	Metro. School	Junior College	Area School	Metro. School	Junior College
Population Size*	240	156	157	48	156	157
Sample Size	48	47	47	48	47	47
Sample as % of Population	20%	30%	30%	100%	30%	30%
No. Responding	30	32	38	37	25	31
Responses as % of Sample	63%	68%	81%	77%	53%	66%

*For *area schools*, population size is based on an estimated average of five area schools per state which met the definition of area school as used in this study. Chief school officers for area schools assumed, for this study, to be the State Coordinator of Area Schools in each state. For *metropolitan schools and junior colleges*, population size is based on an assumption that metropolitan school systems with an enrollment of 28,000 or more and junior colleges with an enrollment of 1600 or more would have full-time administrators of vocational-technical education programs.

A general requirement of the chi-square test is that frequencies in each cell should not be too small. Walker and Lev (1953) suggest the following "practical rules of thumb for testing significance by use of the tables of areas under the chi-square curve:"

1. If there are 2 or more degrees of freedom and the expectation in each cell is more than 5, the chi-square table assures a good approximation to the exact probabilities.
2. If there are 2 or more degrees of freedom and roughly approximate probabilities are acceptable for the test of significance, an expectation of only 2 in a cell is sufficient.
3. If there are 2 or more degrees of freedom and the expectation in all the cells but one is 5 or more, then an expectation of only one in the remaining cell is sufficient to provide a fair approximation to the exact probabilities.
4. If the logic of the problem permits, combine some of the classes to increase the expectations in the cells when several cells have very small expectations.

For this study, cells were collapsed where appropriate to meet at least one of the criteria listed above. The major concern in the statistical analysis of data in this study was to determine if there was agreement among those persons surveyed and if not, whether the differences were significant. The degree of relationship was not considered to be a major factor. For this reason, the contingency coefficient was not determined.

CHAPTER IV

ANALYSIS OF DATA RELATING TO PRIMARY VARIABLES

The objective of this chapter is to present and analyze the data relating to *Research Question 1* which embodies the primary variables impinging on the study, i.e., institutional type and administrative level.

Research Question 1: How will a set of selected competencies, which might be considered necessary for the effective administration of vocational-technical education, be rated in importance by practicing vocational-technical administrators and their chief school officers? Will there be significant differences? Will there be areas of common agreement?

This question has several implications. It refers to the level at which the vocational-technical education administrators randomly selected for this study would rate the 40 basic competencies listed on the questionnaire and the agreement or disagreement of administrator subgroups on the ratings. It is concerned also with the level at which chief school officers of the same institutions as the vocational-technical administrators would rate the same competencies and their agreement or disagreement. It relates further to the agreement or disagreement between chief school officers and their vocational-technical administrators in each of the three types of institutions represented in the study. And finally, it considers the agreement or disagreement between the vocational-technical administrators as a group and the chief school officers as a group. Each of these sub-parts of the basic research question is treated separately throughout the chapter. Selected references are made, where

appropriate, to secondary variables, i.e., those relating to professional background of respondents, although these are treated in detail in Chapter V. Only relationships found to be statistically significant are shown in table form in this chapter, but frequency tables for all relationships treated are included in Appendix B.

Perceptions of Vocational-Technical Administrators

Regarding Administrative Competencies

As indicated in the previous section, this study was concerned partially with the level of importance which those surveyed would assign to the basic competencies listed on the questionnaire. For such data to have value, however, there must be some measure of the agreement among the respondents from the various groups relative to their rating of the competencies listed. If differences are observed in the responses as one group is compared with the others, for example, it must be determined if the differences are statistically significant based upon the number responding and the degree of accuracy expected. In this study a chi-square test was used for this purpose.

Questionnaires were returned from 30 directors of area vocational schools, 32 vocational-technical directors from metropolitan school systems, and 38 deans of junior college vocational-technical education programs. The response data from the vocational-technical administrators were combined into three groups according to the type of institution which the respondents represented and then analyzed with the chi-square test to determine the extent of agreement among them for each of the 40 competencies listed.

The chi-square tests indicated that, at the 5 percent level, there were no significant differences in the responses of vocational-technical

education administrators from one type of institution as compared with those from the other types represented in the study.

Perceptions of Chief School Officers Regarding Administrative Competencies

Questionnaires were returned from 37 State Area School Coordinators who were considered, for this study, to be the chief school officers of the area schools. Questionnaires were also returned from 25 superintendents of metropolitan school systems and 31 junior college presidents. The response data from the chief school officers were combined into three groups according to the type of institution which the respondents represented and then analyzed with a chi-square test to determine the extent of agreement among them for each of the 40 competencies listed. Less agreement was shown between these three groups of administrators than among the vocational-technical administrators. It should be pointed out, however, that most of the area school coordinators who are in the chief school officer group have a vocational-technical education background, while the majority of the other chief school officers surveyed in the study have a non-vocational education background.

Statistical data representing the competency items for which significant differences were detected among the responses of chief school officers appear in Table II. As may be noted in the table, most of the significant differences in responses of chief school officers may be accounted for by the area school coordinator group. Of those with significant differences, the following were rated notably higher by area school coordinators than by junior college presidents and metropolitan school superintendents:

Task Analysis and Job Development - item 11

Planning and Conducting Group Meetings and Seminars - item 21

Guidance, Placement, and Follow-up Procedures in Education -
item 22

Local, State, and Federal Responsibilities for Occupa-
tional Education - item 24

Program Planning and Development for Occupational
Education - item 27

Procedures for Financing State and Local Government - item 33

TABLE II

RESPONSES OF CHIEF SCHOOL OFFICERS
WITH SIGNIFICANT DIFFERENCES

Item Number	Response Level															X ²	df	Signif- icance
	Area Schools					Metro. Schools					Jr. Colleges							
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
5	0	6	10	13	8	0	0	13	5	7	1	0	4	13	13	9.98	4	Sign.
11	0	1	4	15	17	0	0	7	15	3	0	1	13	7	10	16.08	4	Sign.
19	0	0	3	18	16	0	0	6	7	12	0	1	16	7	7	18.96	4	Sign.
21	0	0	8	11	18	0	1	6	14	4	0	1	11	12	7	10.50	4	Sign.
22	0	0	4	9	24	0	0	5	15	5	0	0	12	14	5	24.37	4	Sign.
24	0	0	7	14	16	1	0	3	12	9	0	1	9	18	3	10.29	4	Sign.
25	0	1	10	19	7	0	2	6	15	2	0	3	17	10	1	12.24	4	Sign.
27	0	0	3	8	26	0	1	5	11	8	0	1	4	15	11	12.47	4	Sign.
33	0	6	10	11	10	1	1	16	5	2	1	6	18	5	1	16.27	6	Sign.
Significance at .05 level: for df = 4, X ² = 9.5; for df = 6, X ² = 12.6																		

The significant differences in the responses for the following competency items were influenced most by the junior college presidents who rated them considerably lower than did the area school coordinators and metropolitan school superintendents:

Organization and Administration of Adult Education - item 19

Utilization of Labor Market Theory in Planning Educational Programs - item 25

The junior college presidents were responsible also for the significant differences in responses to the next item. The group rated this item much higher than did the area school coordinators and metropolitan school superintendents:

Providing Educational Opportunity for Racial and Cultural Minorities - item 5

Comparison of Responses of Vocational-Technical Administrators and
Their Chief School Officers from Similar Institutions
Regarding Administrative Competencies

A comparison was made of the responses of vocational-technical education administrators and chief school officers from similar institutions representing area vocational schools, metropolitan school systems, and junior colleges respectively. These comparisons are analyzed separately in this section according to each type of institution.

Area School

As a person's responsibilities change, due to job advancement or otherwise, his attitudes and ideas sometimes undergo change also. As mentioned previously, area school coordinators in most cases have moved to their current positions from administrative positions within

vocational and technical education at the local level. In general, therefore, the education and background experiences of area school coordinators are not greatly different from those of the area school directors whose activities they coordinate. Administratively, however, they operate at different levels and the coordinator, in most cases, approves the credentials of prospective area school directors for federal and state reimbursement purposes. This section compares the responses of these two groups of administrators to determine if there are, in fact, differences in their perceptions of the competencies necessary for area school directors.

Responses of 30 area school directors were compared with those of 37 state coordinators of area schools and a chi-square test was conducted to determine if significant differences occurred between the two levels of administrators. The test indicated that there were no significant differences between responses of the area school coordinators and area school directors who were surveyed.

Metropolitan School Systems

Unlike the previous group, the education and background experiences of these two types of administrators in the metropolitan school systems are generally different. Added to this, of course, are the different levels of responsibility and the different perspective from which the two groups view and assess the competencies necessary for an administrator of vocational-technical education.

Responses of 32 vocational-technical administrators of metropolitan school systems were compared with those of 25 school superintendents from the same group of schools. Chi-square tests on this data indicated

that there were no significant differences between the responses of those metropolitan school system superintendents and vocational-technical education directors who responded in this study.

Junior Colleges

Responses of 38 junior college deans were compared with the responses of 31 junior college presidents to determine the extent of agreement between these two levels of administrators. Results of the chi-square tests indicated significant differences in the responses between the two groups for only 4 of the 40 competencies listed. Statistical data representing those items for which significant differences were detected are shown in Table III.

TABLE III

RESPONSES OF JUNIOR COLLEGE DEANS AND THEIR PRESIDENTS
WHICH SHOWED SIGNIFICANT DIFFERENCES

Item Number	Response Level										X ²	df	Significance
	Voc.-Tech. Administrators					Chief School Officers							
	1	2	3	4	5	1	2	3	4	5			
22	1	0	1	16	20	0	0	12	14	5	15.94	2	Sign.
31	1	3	16	6	12	1	4	20	5	1	8.99	2	Sign.
33	0	6	11	12	9	1	6	18	5	1	11.22	3	Sign.
35	0	3	5	18	12	0	6	11	11	3	10.55	2	Sign.

Significance at .05 level: for df = 2, X² = 6.0; for df = 3, X² = 7.8

The competency items for which significant differences were detected in responses from junior college deans and presidents are the following:

Guidance, Placement, and Follow-up Procedures in Education - item 22

Legal Aspects of Education and Their Interpretation - item 31

Procedures for Financing State and Local Government - item 33

Finance and Business Management of Schools - item 35

In each case of the differences above the junior college deans of vocational-technical education rated the items notably higher than did the presidents.

Responses of Vocational-Technical Administrators Compared
with Those of Their Chief School Officers
Regarding Administrative Competencies

This section describes a comparison of the responses of the total group of 100 vocational-technical administrators with the responses of the total group of 93 chief school officers. This combination of responses from the vocational-technical education administrators seemed to be valid because there were no significant differences in comparing their responses as separate groups in an earlier analysis. Combining responses of the chief school officers as a total group might be subject to question because significant differences were detected in comparing their responses earlier as separate groups. It was done, however, with the understanding that the major source of differences among responses of the chief school officers was apparently the area school coordinator group which could have skewed the responses from the chief school officers as a whole toward the thinking of the vocational administrators.

In comparing responses of the two levels of administrators as total groups, the effect of this influence would have been to decrease the number of items for which significant differences were found. The combination of responses of the chief school officers as a group was done, therefore, with due consideration to the possibility of inferring that significant differences did not exist for some borderline cases in which they actually may have existed.

In comparing responses of the total group of vocational-technical administrators and the total group of chief school officers, significant differences were found for those items listed in Table IV.

TABLE IV

RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS AND THEIR CHIEF SCHOOL OFFICERS WHICH SHOWED SIGNIFICANT DIFFERENCES

Item Number	Response Level										χ^2	df	Significance
	Voc.-Tech. Administrators					Chief School Officers							
	1	2	3	4	5	1	2	3	4	5			
13	0	0	5	25	70	0	1	13	28	51	7.06	2	Sign.
23	0	0	5	16	79	0	0	6	33	54	10.48	2	Sign.
24	1	1	16	34	48	1	1	19	44	28	6.61	2	Sign.
32	0	3	33	29	35	1	12	41	25	14	15.82	3	Sign.
33	0	9	31	25	35	2	13	44	21	13	14.34	3	Sign.
34	0	0	15	39	46	0	2	22	46	23	10.08	2	Sign.
35	0	5	13	39	43	0	9	21	41	22	10.75	3	Sign.
39	0	2	37	35	26	4	10	30	37	12	14.08	3	Sign.

Significance at .05 level: for df = 2, $\chi^2 = 6.0$; for df = 3, $\chi^2 = 7.8$

The following competencies are those indicated in Table IV to have significant differences in responses from the two levels of administrative groups:

Human Relations in Business and Industry - item 13

Establishing Effective School Relations with Business and Industry - item 23

Local, State, and Federal Responsibilities for Occupational Education - item 24

Effecting Educational Change Through the Legislative Process - item 32

Procedures for Financing State and Local Government - item 33

Developing School Organization for Effective Management - item 34

Finance and Business Management of Schools - item 35

Utilizing Political Skills for Effective Administration of Education - item 39

It may be noted in Table IV, that in each case where significant differences occurred, the vocational-technical administrator rated the particular competency significantly higher than did the chief school officer.

Hierarchal Arrangement of Administrative Competencies

As stated previously, the major purpose of this study was to identify the basic competencies necessary for individuals who administer vocational and technical education programs and to determine which are common to vocational-technical administration in the three types of schools represented in the study. A secondary purpose was to obtain sufficient information from those surveyed to rank the identified competencies in a hierarchal fashion in order to indicate the relative importance of each in comparison with the others. This section is concerned with this ranking.

The responses from all of the vocational-technical administrators were combined for each of the 40 competency items listed on the questionnaire and the consensus index value for each item was determined. The 40 competency items were then ranked on the basis of their consensus index values.

The responses from the chief school officers were treated in the same manner to determine a hierarchal ranking of the 40 competency items according to this group's ratings.

Table V lists the basic competencies in the order in which they appear in the questionnaire according to their original item number. The consensus index value for each item appears at the right side of the table along with the relative rank numbers.

TABLE V
 CONSENSUS INDEX VALUES AND RANK ORDER NUMBER
 OF COMPETENCY ITEMS

Item No.	Competency	Voc.-Tech. Adms.		Chief Sch. Officers	
		Index	Rank	Index	Rank
1	Analysis and Utilization of Manpower Data in Education	3.93	19	3.92	20
2	Technological Development and Its Effects on Society	3.79	27	3.93	19
3	Development and Organization of Occupational Education	4.52	5	4.42	3
4	The Effects of Poverty and Economic Insecurity and Their Implications for Education	3.66	34	3.59	34
5	Providing Educational Opportunity for Racial and Cultural Minorities	3.70	32	3.85	21

TABLE V (Continued)

6	Societal Implications of Urban Growth and Development and the Resulting Needs for Education	3.58	37	3.68	28
7	Economic Justification for Occupational Education	4.25	12	3.99	16
8	Human Relations in Business and Industry	4.20	13	4.13	10
9	Racial, Labor, and Management Conflicts in Business and Industry	3.47	38	3.72	25
10	Employee Motivation for Greater Productivity	3.64	35	3.66	29
11	Task Analysis and Job Development	4.18	15	4.02	13
12	Contemporary Philosophies of Education and Their Significance for Occupational Education	3.76	29	3.65	31
13	Curriculum Development and Evaluation*	4.65	3	4.40	4
14	Application of Current Theories of Learning to Occupational Education	3.90	20	3.99	16
15	Shaping Student Behavior and Personality Development	3.75	30	3.65	31
16	Utilization of Systems Analysis in the Educational Process	3.74	31	3.66	29
17	Trends and Developments in Educational Media	3.78	28	3.70	26
18	Instructional Techniques for Occupational Education	4.36	8	4.34	6
19	Organization and Administration of Adult Education	4.10	17	4.09	11
20	Effective Utilization of Educational Tests and Measurements	3.67	33	3.70	26
21	Planning and Conducting Group Meetings and Seminars	4.17	16	4.00	14
22	Guidance, Placement, and Follow-up Procedures in Education	4.33	9	4.14	9
23	Establishing Effective School Relations with Business and Industry*	4.74	1	4.51	1
24	Local, State, and Federal Responsibilities for Occupational Education*	4.27	11	4.04	12
25	Utilization of Labor Market Theory in Planning Educational Programs	3.84	24	3.63	33

TABLE V (Continued)

26	Analysis and Use of Regional Economic Data in Program Development	3.82	25	3.85	21
27	Program Planning and Development for Occupational Education	4.43	6	4.31	7
28	Applications of Statistics in Education	3.32	40	3.20	39
29	Designing and Conducting Research in Education	3.37	39	3.20	39
30	Utilizing Research Results for the Improvement of Education	3.85	22	3.85	21
31	Legal Aspects of Education and Their Interpretation	3.81	26	3.45	36
32	Effecting Educational Change Through the Legislative Process*	3.96	18	3.42	37
33	Procedures for Financing State and Local Government*	3.86	21	3.32	38
34	Developing School Organization for Effective Management*	4.31	10	3.97	18
35	Finance and Business Management of Schools*	4.20	13	3.82	24
36	Coordinating and Supervising Professional School Staff	4.54	4	4.38	5
37	Developing Techniques for the Evaluation and Improvement of Education	4.37	7	4.20	8
38	Computer Applications in Education	3.61	36	3.57	35
39	Utilizing Political Skills for Effective Administration of Education*	3.85	22	4.00	14
40	Developing Effective School and Community Relations	4.67	2	4.43	2

*indicates significant difference

In Table VI the order of the competencies has been re-arranged to coincide with the hierarchal ranking (from highest to lowest in importance) which was determined from the consensus index values of each item

as rated by the vocational-technical education administrators. The ranking by chief school officers has been placed beside the other for comparison purposes. Also, the consensus index values in each case have been listed again for general information.

TABLE VI
HIERARCHAL RANKING OF BASIC COMPETENCY ITEMS

Voc.-Tech. Adms.	Chief Sch. Officers	Competency Item
1 (4.74)	1 (4.51)	Establishing Effective School Relations with Business and Industry*
2 (4.67)	2 (4.43)	Developing Effective School and Community Relations
3 (4.65)	4 (4.40)	Curriculum Development and Evaluation*
4 (4.54)	5 (4.38)	Coordinating and Supervising Professional School Staff
5 (4.52)	3 (4.42)	Development and Organization of Occupational Education
6 (4.43)	7 (4.31)	Program Planning and Development for Occupational Education
7 (4.37)	8 (4.20)	Developing Techniques for the Evaluation and Improvement of Education
8 (4.36)	6 (4.34)	Instructional Techniques for Occupational Education
9 (4.33)	9 (4.14)	Guidance, Placement, and Follow-up Procedures in Education
10 (4.31)	18 (3.97)	Developing School Organization for Effective Management*
11 (4.27)	12 (4.04)	Local, State, and Federal Responsibilities for Occupational Education*
12 (4.25)	16 (3.99)	Economic Justification for Occupational Education
13 (4.20)	10 (4.13)	Human Relations in Business and Industry
13 (4.20)	24 (3.82)	Finance and Business Management of Schools*

TABLE VI (Continued)

15	(4.18)	13	(4.02)	Task Analysis and Job Development
16	(4.17)	14	(4.00)	Planning and Conducting Group Meetings and Seminars
17	(4.10)	11	(4.09)	Organization and Administration of Adult Education
18	(3.96)	37	(3.42)	Effecting Educational Change Through the Legislative Process*
19	(3.93)	20	(3.92)	Analysis and Utilization of Manpower Data in Education
20	(3.90)	16	(3.99)	Application of Current Theories of Learning to Occupational Education
21	(3.86)	38	(3.32)	Procedures for Financing State and Local Government*
22	(3.85)	14	(4.00)	Utilizing Political Skills for Effective Administration of Education*
22	(3.85)	21	(3.85)	Utilizing Research Results for the Improvement of Education
24	(3.84)	33	(3.63)	Utilization of Labor Market Theory in Planning Educational Programs
25	(3.82)	21	(3.85)	Analysis and Use of Regional Economic Data in Program Development
26	(3.81)	36	(3.45)	Legal Aspects of Education and Their Interpretation
27	(3.79)	19	(3.93)	Technological Development and Its Effects on Society
28	(3.78)	26	(3.70)	Trends and Developments in Educational Media
29	(3.76)	31	(3.65)	Contemporary Philosophies of Education and Their Significance for Occupational Education
30	(3.75)	31	(3.65)	Shaping Student Behavior and Personality Development
31	(3.74)	29	(3.66)	Utilization of Systems Analysis in the Educational Process
32	(3.70)	21	(3.85)	Providing Educational Opportunity for Racial and Cultural Minorities
33	(3.67)	26	(3.70)	Effective Utilization of Educational Tests and Measurements
34	(3.66)	34	(3.59)	The Effects of Poverty and Economic Insecurity and Their Implications for Education
35	(3.64)	29	(3.66)	Employee Motivation for Greater Productivity

TABLE VI (Continued)

36	(3.61)	35	(3.57)	Computer Applications in Education
37	(3.58)	28	(3.68)	Societal Implications of Urban Growth and Development and the Resulting Needs for Education
38	(3.47)	25	(3.72)	Racial, Labor, and Management Conflicts in Business and Industry
39	(3.37)	39	(3.20)	Designing and Conducting Research in Education
40	(3.32)	39	(3.20)	Applications of Statistics in Education

*indicates significant difference

There was considerable agreement and indication of consistency between the two levels of administrators in terms of the consensus index values and the resulting rank order. For example, each group's consensus index for the competency item "Establishing Effective School Relations with Business and Industry" resulted in it being ranked as number one or "most important" in the hierarchal order. Both groups agreed also that the second order competency was that of "Developing Effective School and Community Relations." Though these two items are similar, they were physically separated on the questionnaire - one on each page; yet they were rated in first and second order respectively by both groups.

The average ratings by the vocational-technical administrators resulted in their ranking "Curriculum Development and Evaluation" in third order. The ratings by the chief school officers, however, placed this fourth and "Development and Organization of Occupational Education" third.

As can be seen in Table VI, the competency items ranked one through eight by the vocational-technical administrators are very closely paralleled by the rank order resulting from competency ratings provided by the chief school officers. The two levels of administrative groups agreed that "Guidance, Placement, and Follow-up Procedures in Education" was ninth in importance out of the 40 competencies listed. Agreement, or near agreement, may be noted for a number of the other competency items listed. Both groups showed agreement and a degree of consistency by rating "Designing and Conducting Research in Education" and "Applications of Statistics in Education" such that they are ranked thirty-ninth and fortieth respectively out of a total of forty.

In comparing the ratings and subsequent rankings of the basic competencies by the two levels of administrators, definite trends or patterns may be observed. Competencies which have sociological overtones, for example, tend to be rated, and thus ranked, much lower by vocational administrators than by their chief school officers. As a case in point, "Technological Development and Its Effect on Society" was ranked 27 out of 40 by the vocational administrators and 19 out of 40 by the chief school officers. "Providing Educational Opportunity for Racial and Cultural Minorities" was ranked 32 out of 40 by the vocational administrators and 21 out of 40 by the chief school officers. "Racial, Labor, and Management Conflicts in Industry" received a 38 and a 25 ranking respectively from vocational administrators and chief school officers.

Another pattern may be noted also in the data of Table VI. Those competencies which relate to activities outside the regular school program and its management tended to be rated lower by the chief school

officers in terms of their importance for the effective administration of vocational and technical education programs. "Effecting Educational Change Through the Legislative Process" was rated such that it ranked 18 out of 40 by the vocational administrators but was placed near the bottom of the order at 37 out of 40 by the chief school officers.

"Finance and Business Management of Schools" received a 13 and 24 ranking respectively by vocational and chief school administrators.

"Procedures for Financing State and Local Government" was ranked 21 out of 40 by vocational administrators and 38 out of 40 by chief school officers.

Though the rating and subsequent ranking patterns described above indicate the more notable trends in the hierarchal arrangement of the competencies in Table VI, other significant relationships may be observed. Chief school officers, for example, ranked "Organization and Administration of Adult Education" 11 out of 40 while vocational administrators apparently considered this less important and ranked it as low as 17 out of 40.

The data in Table VI serve another useful function by indicating for each competency item the consensus index from which the ranking order was determined. As may be noted in the table, the competency item with the highest index, "Establishing Effective School Relationships with Business and Industry," received an average of 4.75 on a one to five point scale indicating that this particular competency was judged by vocational administrators to be somewhere between "necessary" and "absolutely essential" but closer to the latter. Though the final competency item in the table, "Applications of Statistics in Education," was ranked 40 out of 40, its consensus index, as determined by the

vocational-technical education administrators, is still 3.32 on the one to five-point scale indicating that this particular competency was judged by this group to be somewhere between "desirable" and "necessary" though closer to the former. Taken as a whole, none of the basic competencies listed received an average rating lower than "desirable."

In summary, this chapter has covered all aspects of the study which compare responses of the six different groups of administrators. The responses of the vocational-technical administrators from each type of school are compared with their counterparts in the other two types of schools. The same was done with the chief school officers. These were followed by a comparison of the total group responses between the two levels of administrators. Finally, the basic competencies were arranged in a hierarchal fashion based on the consensus index value which each item received.

CHAPTER V

ANALYSIS OF DATA RELATING TO SECONDARY VARIABLES

The objective of this chapter is to present and analyze the data relating to *Research Question 2* which is concerned with the various factors in the vocational-technical education administrator's professional background which might influence his responses to the basic competencies listed.

Research Question 2: Will the ratings given to the selected competencies by the vocational-technical administrators differ significantly as a function of various factors in their professional background, such as

- a. level of educational attainment (highest college degree obtained),
- b. major area of study for highest college degree,
- c. major area of study for undergraduate degree,
- d. relative age as indicated by the number of years since obtaining their baccalaureate degree, and
- e. number of years of administrative experience?

Because the major focus of this study is on the vocational-technical administrators, the responses of chief school officers will not be treated further. This chapter, therefore, will deal with data relative to vocational-technical administrators only. Frequency tables for relationships treated in this chapter are included in Appendix C.

Educational Level of Vocational-Technical Administrators

Of the 100 vocational-technical education administrators who returned questionnaires, 9 percent indicated that their highest college degree was at the baccalaureate level, 73 percent indicated their highest degree to be the master's and 18 percent stated that they had completed the doctorate. As may be noted in Table VII, the distribution of college degrees among vocational-technical administrators in the three types of schools represented was very similar in that the master's degree was most common. This partially supports the data reported by Barlow and Reinhart (1969) who found in their study on the profiles of California's trade and technical leaders that 21 percent of those whom they surveyed held only a baccalaureate degree, 67 percent held a master's degree, and 12 percent held doctorates.

TABLE VII

HIGHEST DEGREE HELD BY VOCATIONAL-TECHNICAL ADMINISTRATORS

Type of School	N	Degree					
		Baccalaureate	%	Master's	%	Doctorate	%
Area School	30	5	17	20	66	5	17
Metropolitan Sch.	32	2	6	24	75	6	19
Junior College	38	2	5	29	77	7	18
Total	100	9	9	73	73	18	18

A statistical analysis to determine possible significant differences among the three groups for this relationship was not made because the frequency of those with only baccalaureate degrees was judged to be too small to make the analysis meaningful. However, the frequency table for this relationship is included in Appendix C for the reader's general information.

Responses of the vocational-technical education administrators were combined and grouped according to the three highest degree categories and the consensus index value was determined for each item. Though there is general agreement regarding the rating of the competencies among those in the three highest degree categories, some exceptions are notable and worth exploring (see Appendix C).

As may be noted in the table, consensus index values for the basic competencies listed below increase progressively upward for each level of college degree. Specifically, the index values are higher for those with master's degrees than for those with baccalaureate degrees, and higher for those with doctorates than for those with master's degrees:

Analysis and Utilization of Manpower Data in Education -
item 1

The Effects of Poverty and Economic Insecurity and Their
Implications for Education - item 4

Providing Educational Opportunity for Racial and Cultural
Minorities - item 5

Employee Motivation for Greater Productivity - item 10

Shaping Student Behavior and Personality Development -
item 15

Establishing Effective School Relations with Business and
Industry - item 23

Utilizing Research Results for the Improvement of
Education - item 30

Legal Aspects of Education and Their Interpretation -
item 31

Effecting Educational Change Through the Legislative
Process - item 32

For the basic competencies listed below, the consensus index values decrease with increasing levels of college degrees which the respondents hold:

Trends and Developments in Educational Media - item 17

Instructional Techniques for Occupational Education -
item 18

Organization and Administration of Adult Education -
item 19

Utilization of Labor Market Theory in Planning Educa-
tional Programs - item 25

Applications of Statistics in Education - item 28

Designing and Conducting Research in Education -
item 29

Procedures for Financing State and Local Government -
item 33

Finance and Business Management of Schools - item 35

Though this comparison of consensus index values for these basic competencies is not a legitimate statistical analysis, it does indicate apparent trends among the responses of the 100 vocational-technical administrators responding.

Major Area of Study for Vocational-Technical

Administrators' Advanced Degrees

It was found from the questionnaires returned by those vocational-technical administrators who held advanced degrees that more than half of the degrees (55 percent) were in some field other than a specific area of vocational or technical education. Table VIII indicates that

32 of the vocational administrators who had advanced degrees (35 percent) did their graduate work in educational administration. This information parallels rather closely the results of a study by Harold Polk (1969) concerning the characteristics of area vocational school directors. Polk found that approximately half of the directors in his study who had completed graduate work did so in vocational education field of specialization. Slightly less than half of the directors surveyed by Polk indicated that their graduate work was in educational administration.

TABLE VIII

MAJOR AREA OF STUDY FOR VOCATIONAL-TECHNICAL
ADMINISTRATORS' ADVANCED DEGREES

Type of School	N	Area of Specialization								
		Agric.	Health	Indust. Arts	Indust. Educ.	Bus. & Office	Voc. Educ.	Educ. Admin.	Sec. Educ.	Other
Area School	30	2	0	2	5	0	4	11	1	0
Metropolitan School	32	0	0	2	3	1	5	15	3	1
Junior College	38	0	2	1	8	3	3	6	3	10
Total	91*	2	2	5	16	4	12	32	7	11

*Nine of the vocational-technical administrators did not hold advanced degrees.

Though no attempt will be made at this point to speculate on the possible reasons for these people going to other fields for their

advanced degree work, the fact that they did may be worth exploring. It could indicate differences in interests and attitudes toward vocational-technical education and the competencies necessary for administrators in this field as compared with those who did their advanced degree work in an area of vocational education. On the other hand, their interests and attitudes could have been influenced, or in fact changed, during, or as a result of, their advanced study in non-vocational fields. The chi-square analysis indicated, however, that there were no significant differences in the responses between these two groups.

Major Area of Study for Vocational-Technical Administrators' Baccalaureate Degrees

The undergraduate major for approximately half of the vocational-technical administrators surveyed in this study was found to be industrial arts as indicated in Table IX. Thirty-one percent of the administrators obtained their degree in fields other than vocational or technical education.

The study by Polk (1969) indicated that the most common undergraduate major of the area school directors whom he surveyed was practical arts which is interpreted to be industrial arts. As may be noted in Table IX, the information obtained in this study supports Polk's figures in this regard.

A statistical analysis was not conducted for this relationship due to the low frequencies for some of the specialized vocational areas.

TABLE IX
 UNDERGRADUATE MAJOR OF VOCATIONAL-TECHNICAL ADMINISTRATORS

Type of School	N	Area of Specialization						
		Agric.	Distrib.	Health	Indust. Arts	Bus. & Office	Trade & Indust.	Other
Area School	30	3	1	0	13	0	3	10
Metropolitan School	32	0	0	0	20	6	2	4
Junior College	38	1	0	1	15	3	1	17
Total	100	4	1	1	48	9	6	31

Relative Age of Vocational-Technical Administrators

Because some of the basic competencies listed on the questionnaire have to do with current issues which have grown out of contemporary societal problems and needs, it was felt that the ages of vocational-technical administrators might have some influence on the ratings they give to certain of the items. However, rather than ask for age directly, the personal data sheet which accompanied the questionnaire asked for the number of years since the respondents had received their baccalaureate degree. The results of the question are included in Table X.

Response data from the vocational-technical administrators were combined into three groups representing those who obtained their baccalaureate degrees 1 to 16 years ago, 17 to 32 years ago, and those who graduated 33 or more years ago. This breakdown was used because it

appeared to be the natural grouping with notable breaks between these age groups. The responses indicated that, for those vocational-technical administrators surveyed, the median number of years since obtaining the baccalaureate degree was 21 for area vocational school directors, 27 for metropolitan school vocational directors, and 23 for junior college deans. As a result of the chi-square analysis, it was found that there were significant differences in the responses for the items listed in Table XI.

TABLE X
LENGTH OF TIME SINCE OBTAINING BACCALAUREATE DEGREE

Type of School	N	Number of Years			Median Years
		1 - 16	17 - 32	33+	
Area School	30	10	15	5	21
Metropolitan School	32	5	15	12	27
Junior College	38	11	17	10	23
Total	100	26	47	27	23

As may be noted in Table XI, the major differences in responses for this relationship appear to result from the notably lower ratings provided by those administrators who indicated the greatest number of years since obtaining their undergraduate degree. The following competency items are the ones for which significant differences were found:

Developing Techniques for the Evaluation and Improvement
of Education - item 37

Utilizing Political Skills for Effective Administration
of Education - item 39

TABLE XI

RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS BY
YEARS SINCE OBTAINING UNDERGRADUATE DEGREE
WHICH SHOWED SIGNIFICANT DIFFERENCES

Item Number	Response Level															X^2	df	Signif- icance
	1 - 16 Years					17 - 32 Years					33+ Years							
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
37	0	0	4	9	13	0	0	5	13	29	0	0	2	21	4	16.51	4	Sign.
39	0	0	9	7	10	0	0	14	18	15	0	2	14	10	1	11.96	4	Sign
Significance at .05 level: for df = 4, $X^2 = 9.5$																		

Administrative Experience of Vocational-Technical Administrators

The vocational-technical administrators in this study indicated that as a group they had a median of 10 years of administrative experience. The directors of area vocational schools had a median of 9.5 years, those from metropolitan school systems had a median of 12.5 years, and the junior college deans had a median of 8.5 years of administrative experience. The breakdown of administrative experience is shown in Table XII. This data is partially supportive of Harold Polk's (1969)

findings, in his study of area school directors, which revealed that their median number of years of administrative experience was 9.4.

A chi-square test was conducted to determine if the number of years of administrative experience seemed to have any influence of the ratings which the vocational-technical administrators gave to the competency items listed. However, no significant differences were detected.

TABLE XII
NUMBER OF YEARS OF ADMINISTRATIVE EXPERIENCE

Type of School	Total	Number of Years			Median Years
		1 - 8	9 - 16	17+	
Area School	30	13	13	14	9.5
Metropolitan School	32	8	13	11	12.5
Junior College	38	19	10	9	8.5
Total	100	40	36	24	10.0

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The problem with which this study was concerned was the lack of sufficient descriptive information relative to the basic competencies necessary for administrators of vocational-technical education. The purpose, therefore, was to identify those competencies and to determine which are common to vocational-technical administration in junior colleges, area vocational schools, and metropolitan school systems as well as to determine those competency requirements which are unique, but considered necessary, to each. Specifically, the study was an attempt to answer the following questions:

1. How will a set of selected competencies, which might be considered necessary for the effective administration of vocational-technical education programs, be rated by practicing vocational-technical administrators and their chief school officers? Will there be significant differences? Will there be areas of common agreement?
2. Will the ratings given to the selected competencies by the vocational-technical administrators differ significantly as a function of various factors in their professional background, such as
 - a. level of educational attainment (highest college degree obtained),
 - b. relative age as indicated by the time since obtaining their baccalaureate degree,
 - c. number of years of administrative experience,

d. number of years of business and/or industrial experience,

e. area of previous teaching specialization, and

f. major area of study for their highest college degree?

The study was limited to vocational-technical education administrators and their chief school officers in public junior college and community colleges, area vocational schools, and metropolitan school systems. The individuals surveyed were asked to rate a set of selected competencies which might be considered necessary for an administrator of vocational-technical education programs. The responses were tabulated and statistical analyses were made of the differences in the responses of various groups to determine if the differences were significant.

In analyzing the data, comparisons were made of the responses among vocational administrators in the three types of schools represented, among chief school officers in the three types of schools, and between the vocational administrators and chief school officers as separate groups. Analyses were made also to determine if various selected factors in the vocational-technical education administrators' professional backgrounds tend to influence their ratings of the competencies listed.

Findings and Conclusions

1. Statistical analyses of data from the returned questionnaires indicated that there tends to be general agreement among vocational-technical administrators of area vocational schools, metropolitan school systems, and junior colleges regarding the relative importance of the basic competencies listed. This indicates that these competencies are of equal importance to vocational-technical administrators in all types

of schools investigated in this study. A graduate program to prepare vocational administrators for one type of institution, therefore, would be just as appropriate for preparing administrators for the other two types. Based on the consensus index values it appears that all of the competency items are relatively important for the administration of vocational-technical education. The lowest ranked item, for example, has an index value of 3.20 on a 1 to 5 point scale which indicates that it was considered by the group to be between "desirable" and "necessary."

2. Significant differences in the responses of chief school officers were detected for several of the competency items. The major differences, however, seemed to be the result of combining area school coordinators, who tend to have vocational-technical backgrounds, with the other chief school officers who generally have non-vocational backgrounds.

Items which relate to job analysis, program planning, guidance, placement, follow-up, financing, etc. generally received a higher rating by the area school coordinators than by the other chief school officers. On the other hand, items with sociological overtones such as concern for minority groups show a tendency to be rated lower by area school coordinators than by the other chief school officers. Area school coordinators with their more specialized, job-oriented background apparently place less emphasis on the importance of the ability to understand and work with the needs of disadvantaged groups.

3. The data indicate general agreement in the responses of area school directors as compared with their chief school officers, or area school coordinators, at the state levels. This may result from the fact that both have similar educational and professional experience

backgrounds. It indicates further that a graduate program for preparing vocational-technical administrators which meets the needs as seen by area school directors probably would be just as acceptable to the area school coordinators of this study.

4. As was the case for area school personnel, no significant differences were detected in the responses of metropolitan school superintendents and vocational-technical education directors. Though the educational and professional experience backgrounds of the two levels of administrators in this group differ in most cases, their responses to the questionnaire items indicate that a certain degree of similarity may exist in their educational philosophies.

5. In each of the items for which significant differences occurred between responses of junior college presidents and junior college deans, the tendency was for the deans to rate the item higher than did the president. Significant differences occurred for such items as guidance, placement, follow-up, legal aspects of education, and finance and business management of schools. In all cases these items were rated higher by the junior college deans than by the junior college presidents. There is the possibility that the president sees these as his own area of responsibility and not that of his dean.

6. In comparing the total group of vocational administrators with the entire group of chief school officers, several significant differences in responses were noted. In all cases where significant differences occurred, the vocational-technical administrator rated the competency higher than did the chief school officer. It would appear that, in general, the chief school officers see less urgency in the competencies listed, at least for the vocational administrator.

Many of the competency items for which significant differences were detected had to do with types of activities which are external to the regular, on-going activities of the school. These included such things as local, state, and federal responsibilities for education, educational change through the legislative process, finance and business management, utilization of political skills in education, etc. The chief school officer apparently feels that these are his responsibilities and as a consequence tended to rate these competency items lower.

7. In general, the study has indicated that the 193 administrators who returned questionnaires see all of the competencies listed as being relatively important in the preparation of individuals for administrative roles in vocational-technical education. Where significant differences in responses exist, none is in a completely negative vein as indicated by the fact that no consensus index value fell below a 3.0 level which was considered as a "desirable" competency for vocational-technical education administrators.

8. In the analysis of data for this study, two general types of differences were observed in the responses: (a) vocational-technical administrators tend to rate humanistic related competencies lower than do the chief school officers who, in many cases, have broader educational backgrounds, and (b) vocational-technical administrators tend to rate general school administration and management related competencies higher than do the chief school officers. Although this response pattern is not unexpected, this data represents only a part of those sources which should be considered in graduate program design.

Recommendations

1. It is recommended that the findings from this study be made available to those planning leadership training programs and to practicing administrators since this study indicated possible role conflicts between the two levels of administrative groups surveyed.

2. It is recommended that, in designing graduate programs for the development of leadership personnel, the findings of this study be supplemented with the considered judgments and recommendations of appropriate behavioral scientists.

3. Suggested follow-up studies might include:

a. a survey of selected vocational-technical administrators and/or graduate students currently enrolled in administrative leadership programs to determine additional areas of competencies necessary for such administrators and to validate those identified in this study.

b. a study of graduate curricula to determine the correlation between the competencies which are being developed among vocational-technical administrators in training and the competencies identified in this study.

c. a functional analysis of vocational-technical administrators' jobs to assist in validating the results of this study.

d. the development and validation of an instrument for measuring competencies such as those identified in this study.

e. the identification of basic competencies necessary for leadership roles in such areas as curriculum development, facility planning, etc.

f. the development of alternative methods and/or instruments for evaluating the effectiveness of graduate programs for the preparation of leadership personnel for vocational and technical education.

Such studies or projects would be significant contributions to the profession.

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APPENDIX A

QUESTIONNAIRE AND COVER LETTERS

(Letter to Vocational-Technical Education Administrators)

November 9, 1970

Dear Vocational Education Administrator:

Nationwide efforts are currently underway to find new ways in which to assist States and institutions of higher education with their development of professional personnel for instruction and leadership in vocational and technical education. As you may know, the Bureau of Educational Personnel Development in the U. S. Office of Education is currently sponsoring a special program to help meet the critical need for additional leaders in vocational education and to help improve the capabilities of institutions for preparing such personnel.

In support of these and other efforts, I am contacting you, as well as several other people in high-level positions similar to yours, to determine what subject matter areas you feel should be included in a graduate curriculum to prepare individuals for administrative roles in vocational-technical education.

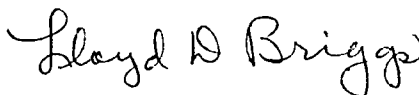
This survey is based on the knowledge that your experience as a practicing administrator of vocational-technical education has enabled you to develop a unique awareness of the major subject areas in which one must be competent to perform effectively in such a position. I hope you will help in this important effort by responding to the items on the enclosed questionnaire and personal data sheet.

The questionnaire lists several subject matter areas in which some degree of competency might be considered necessary for an administrator of vocational-technical education. Will you please take a few minutes to go through these items and indicate what you feel to be the relative importance of each in regard to the administrative position which you hold. Please note that spaces have been provided at the end of the questionnaire for writing in additional subject matter areas which you feel are important.

A stamped, self-addressed envelope is enclosed for your convenience in returning the questionnaire.

Your assistance will be greatly appreciated.

Sincerely,



Lloyd D. Briggs

LDB

Enclosures

(Letter to State Directors of Vocational Education)

November 9, 1970

(Inside Address)

(Salutation)

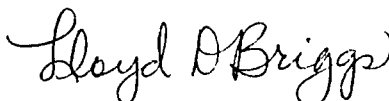
Recent Federal legislation supporting professional personnel development programs for vocational and technical education has brought about some concern among a number of State Departments and universities for determining what subject matter areas should be included in a graduate curriculum to prepare individuals for administrative roles in vocational and technical education. I am conducting a survey, therefore, to determine what practicing vocational and technical education administrators think in this regard based on their actual experience in such positions.

As a part of this total effort, I plan to contact a number of practicing Area School directors to determine what subject areas they think are important based on their actual experience in such positions. In addition, because either you, as State Director, or the person whom you have designated to coordinate Area School activities in your State, help determine qualification criteria for the employment and professional development of Area School directors, I feel also that your, or his, response to the same survey instrument will be a significant contribution in this regard. For this reason, I am sending to you a copy of the questionnaire which a sampling of the Area School directors will be receiving. I hope either you or your Area School Coordinator will help in this effort by responding to the items on the enclosed questionnaire as well as those on the personal data sheet.

The questionnaire lists a number of subject areas in which some degree of competency might be considered necessary for an administrator of an Area Vocational-Technical School. Will you or your Area School Coordinator please take a few minutes to go through these items and indicate what you feel to be the relative importance of each for one to function effectively in such a position and then return the completed material to me at your earliest convenience. Please note that spaces have been provided at the end of the questionnaire for writing in additional subject matter areas which you feel are important.

Your assistance will be greatly appreciated.

Sincerely,


Lloyd D. Briggs

Enclosures

(Letter to Metropolitan School Superintendents)

November 9, 1970

(Inside Address)

(Salutation)

Nationwide efforts are currently underway to find new ways in which to assist States and institutions of higher education with their development of professional personnel for instruction and leadership in vocational and technical education. As you may know, the Bureau of Educational Personnel Development in the U. S. Office of Education is currently sponsoring a special program to help meet the critical need for additional leaders in vocational education and to help improve the capabilities of institutions for preparing such personnel.

In support of these and other efforts, I recently contacted a number of vocational-technical education administrators to determine what subject matter areas they felt should be included in a graduate curriculum to prepare individuals for administrative roles in this field. An identical copy of the enclosed questionnaire was sent to the administrator of your school system's vocational-technical programs to obtain his response in this regard.

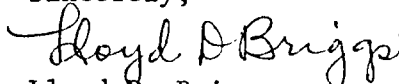
Because you, as the chief school officer for the system, are responsible ultimately for the quality, operation, and success of the total school program, we would appreciate knowing also what you feel are the most important areas in which an administrator of vocational and technical education programs should be competent. I hope you will help in this important effort by responding to the items on the enclosed questionnaire and personal data sheet.

The questionnaire lists a number of subject areas in which some degree of competency might be considered necessary for an administrator of vocational and technical education. Will you please take a few minutes to go through these items and indicate what you feel to be the relative importance of each for one who would be the overall administrator of vocational and technical education programs such as those in your system. Please note that spaces have been provided at the end of the questionnaire for writing in additional subject matter areas which you feel are important.

A stamped, self-addressed envelope is enclosed for your convenience in returning the questionnaire.

Your assistance will be greatly appreciated.

Sincerely,


Lloyd D. Briggs

Enclosures

(Letter to Junior College Presidents)

November 9, 1970

(Inside Address)

(Salutation)

Nationwide efforts are currently underway to find new ways in which to assist States and institutions of higher education with their development of professional personnel for instruction and leadership in vocational and technical education. As you may know, the Bureau of Educational Personnel Development in the U. S. Office of Education is currently sponsoring a special program to help meet the critical need for additional leaders in vocational education and to help improve the capabilities of institutions for preparing such personnel.

In support of these and other efforts, I recently contacted a number of vocational-technical education administrators to determine what subject matter areas they felt should be included in a graduate curriculum to prepare individuals for administrative roles in this field. An identical copy of the enclosed questionnaire was sent to the administrator of your institution's vocational-technical programs to obtain his response in this regard.

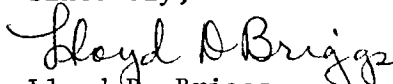
Because you, as the chief administrative officer of your institution, are responsible ultimately for the quality, operation, and success of its total educational program, I would appreciate knowing also what you feel are the most important areas in which an administrator of vocational and technical education programs should be competent. I hope you will help in this important effort by responding to the items on the enclosed questionnaire and personal data sheet.

The questionnaire lists a number of subject areas in which some degree of competency might be considered necessary for an administrator of vocational and technical education. Will you please take a few minutes to go through these items and indicate what you feel to be the relative importance of each for one who would be the overall administrator of vocational and technical education programs such as those in your system. Please note that spaces have been provided at the end of the questionnaire for writing in additional subject matter areas which you feel are important.

A stamped, self-addressed envelope is enclosed for your convenience in returning the questionnaire.

Your assistance will be greatly appreciated.

Sincerely,


Lloyd D. Briggs

Enclosures

(Follow-up letter)

December 23, 1970

(Inside Address)

(Salutation)

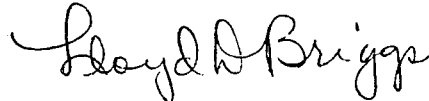
I recently sent a questionnaire to you seeking information relative to the subject areas in which one must be competent to function effectively as an administrator of vocational-technical education.

At our last check, I had not received a return from you. I know you have a busy schedule and perhaps have not had time to respond to the questionnaire.

I feel that the information obtained in this survey will be extremely valuable to institutions which are developing such programs and a significant contribution to the profession. If you have not responded to the questionnaire, will you please take a few minutes to do so and return it in the stamped, self-addressed envelope which was enclosed with it.

I will appreciate your help in this effort.

Sincerely,



Lloyd D. Briggs

LDB

Questionnaire

Instructions: Please indicate, by circling the appropriate number, what you feel to be the relative importance of each subject matter area in the preparation of individuals for administrative positions in vocational-technical education (for example, the Director of an Area Vocational-Technical School, the Director of Vocational-Technical Education Programs in a Metropolitan School System, or the Dean/Director of a Vocational-Technical Division in a Community or Junior College).

	(of no value)	(of questionable value)	(desirable)	(necessary)	(absolutely essential)
1. Analysis and Utilization of Manpower Data in Education.	1	2	3	4	5
2. Technological Development and Its Effects on Society.	1	2	3	4	5
3. Development and Organization of Occupational Education.	1	2	3	4	5
4. The Effects of Poverty and Economic Insecurity and Their Implications for Education.	1	2	3	4	5
5. Providing Educational Opportunity for Racial and Cultural Minorities.	1	2	3	4	5
6. Societal Implications of Urban Growth and Development and the Resulting Needs for Education	1	2	3	4	5
7. Economic Justification for Occupational Education	1	2	3	4	5
8. Human Relations in Business and Industry.	1	2	3	4	5
9. Racial, Labor, and Management Conflicts in Business and Industry.	1	2	3	4	5
10. Employee Motivation for Greater Productivity.	1	2	3	4	5
11. Task Analysis and Job Development	1	2	3	4	5
12. Contemporary Philosophies of Education and Their Significance for Occupational Education	1	2	3	4	5
13. Curriculum Development and Evaluation	1	2	3	4	5
14. Application of Current Theories of Learning to Occupational Education.	1	2	3	4	5
15. Shaping Student Behavior and Personality Development.	1	2	3	4	5
16. Utilization of Systems Analysis in the Educational Process.	1	2	3	4	5
17. Trends and Developments in Educational Media.	1	2	3	4	5
18. Instructional Techniques for Occupational Education	1	2	3	4	5
19. Organization and Administration of Adult Education.	1	2	3	4	5

20.	Effective Utilization of Educational Tests and Measurements . . .	1	2	3	4	5
21.	Planning and Conducting Group Meetings and Seminars	1	2	3	4	5
22.	Guidance, Placement, and Follow-up Procedures in Education. . . .	1	2	3	4	5
23.	Establishing Effective School Relations with Business and Industry.	1	2	3	4	5
24.	Local, State, and Federal Responsibilities for Occupational Education	1	2	3	4	5
25.	Utilization of Labor Market Theory in Planning Educational Programs.	1	2	3	4	5
26.	Analysis and Use of Regional Economic Data in Program Development	1	2	3	4	5
27.	Program Planning and Development for Occupational Education . . .	1	2	3	4	5
28.	Applications of Statistics in Education	1	2	3	4	5
29.	Designing and Conducting Research in Education.	1	2	3	4	5
30.	Utilizing Research Results for the Improvement of Education . . .	1	2	3	4	5
31.	Legal Aspects of Education and Their Interpretation	1	2	3	4	5
32.	Effecting Educational Change Through the Legislative Process. . .	1	2	3	4	5
33.	Procedures for Financing State and Local Government	1	2	3	4	5
34.	Developing School Organization for Effective Management	1	2	3	4	5
35.	Finance and Business Management of Schools.	1	2	3	4	5
36.	Coordinating and Supervising Professional School Staff.	1	2	3	4	5
37.	Developing Techniques for the Evaluation and Improvement of Education.	1	2	3	4	5
38.	Computer Applications in Education.	1	2	3	4	5
39.	Utilizing Political Skills for Effective Administration of Education.	1	2	3	4	5
40.	Developing Effective School and Community Relations	1	2	3	4	5
41.	Other _____ (please specify)	1	2	3	4	5
42.	Other _____ (please specify)	1	2	3	4	5
43.	Other _____ (please specify)	1	2	3	4	5
44.	Other _____ (please specify)	1	2	3	4	5

APPENDIX B

FREQUENCY TABLES FOR DATA RELATING TO PRIMARY VARIABLES

TABLE XIII
RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS

Item Number	Area School					Metropolitan School					Junior College				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	0	1	9	15	5	0	2	7	16	7	0	1	8	16	13
2	0	2	10	14	4	0	3	10	11	8	0	1	10	18	9
3	0	0	2	9	19	0	0	5	8	19	0	0	4	9	25
4	0	1	14	12	3	1	1	11	13	6	0	1	13	20	4
5	1	5	10	11	3	0	3	8	11	10	1	1	10	17	9
6	1	3	14	9	3	0	2	10	13	7	1	1	16	14	6
7	0	1	6	9	14	0	0	7	9	16	0	0	8	12	18
8	0	0	7	8	15	0	1	4	14	13	0	0	10	13	15
9	0	1	18	7	4	0	5	10	13	4	1	2	17	15	3
10	0	0	15	9	6	0	4	11	12	5	0	3	14	14	7
11	0	1	5	11	13	0	0	2	17	13	0	2	9	13	14
12	0	2	11	11	6	0	2	10	9	11	0	3	14	13	8
13	0	0	3	7	20	0	0	0	10	22	0	0	2	8	28
14	1	0	7	16	6	0	0	8	14	10	1	2	10	16	9
15	0	1	10	13	6	0	2	6	19	5	1	4	11	14	8
16	0	1	11	10	8	0	1	14	11	6	0	4	12	13	9
17	0	2	10	15	3	0	0	9	17	6	0	2	13	14	9
18	0	0	4	15	11	0	0	3	10	19	0	1	2	18	17
19	0	0	5	10	15	0	1	3	17	11	0	2	12	14	10
20	0	3	14	9	4	0	1	13	10	8	0	2	13	16	7
21	0	2	5	9	14	0	1	6	14	11	0	2	4	15	17
22	0	2	3	13	12	0	0	1	18	13	1	0	1	16	20
23	0	0	3	4	23	0	0	1	6	25	0	0	1	6	31
24	0	0	7	8	15	0	0	3	11	18	1	1	6	15	15
25	0	2	8	14	6	0	1	7	17	7	2	0	12	14	10
26	0	3	5	16	6	1	1	9	15	6	1	2	10	13	12
27	1	0	3	10	16	0	0	2	10	20	1	1	2	12	22
28	1	3	12	12	2	1	1	19	10	1	1	5	17	11	4
29	0	2	13	11	4	0	4	13	11	4	3	7	13	12	3
30	0	2	8	12	8	1	1	7	16	7	1	1	12	13	11
31	0	2	6	10	12	0	0	14	12	6	1	3	16	6	12
32	0	0	7	8	15	0	1	14	9	8	0	2	12	12	12
33	0	0	9	5	16	0	3	11	8	10	0	6	11	12	9
34	0	0	3	9	18	0	0	4	15	13	0	0	8	15	15
35	0	0	1	11	18	0	2	7	10	13	0	3	5	18	12
36	0	0	3	4	23	0	0	4	12	16	0	0	1	14	23
37	0	0	7	12	11	0	0	2	18	12	0	0	1	13	24
38	0	0	19	8	3	0	2	16	12	2	0	1	12	16	9
39	0	0	11	9	10	0	2	13	12	5	0	0	13	14	11
40	0	0	0	8	22	0	0	1	9	22	0	0	1	12	25

n = 30

n = 32

n = 38

TABLE XIV
RESPONSES OF CHIEF SCHOOL OFFICERS

Item Number	Area School					Metropolitan School					Junior College				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	0	0	7	17	13	0	1	10	12	2	0	1	8	16	6
2	0	0	16	14	7	0	0	8	9	8	0	1	5	16	9
3	0	0	2	16	19	0	0	2	9	14	0	0	6	9	16
4	0	3	18	12	4	0	1	14	8	2	0	1	9	14	7
5	0	6	10	13	8	0	0	13	5	7	1	0	4	13	13
6	0	5	10	16	6	0	2	6	14	3	0	1	11	15	4
7	0	0	6	13	18	0	3	6	9	7	0	2	10	13	6
8	0	0	4	18	15	0	0	4	16	5	0	0	10	11	10
9	0	3	14	13	7	0	1	8	8	8	1	0	12	14	4
10	1	3	11	13	9	0	1	7	13	4	0	3	13	12	3
11	0	1	4	15	17	0	0	7	15	3	0	1	13	7	10
12	0	3	15	10	9	0	5	4	11	5	0	2	13	11	5
13	0	0	3	13	21	0	0	5	8	12	0	1	5	7	18
14	0	0	12	14	11	1	0	4	14	6	0	1	6	15	9
15	0	2	17	9	9	0	0	8	14	3	0	3	13	12	3
16	0	1	10	19	7	0	1	12	9	3	0	3	12	14	2
17	0	0	12	18	7	0	1	8	15	1	0	3	11	14	3
18	0	0	6	10	21	0	0	4	11	10	0	1	4	10	16
19	0	0	3	18	16	0	0	6	7	12	0	1	16	7	7
20	0	1	14	15	7	0	2	7	13	3	0	1	11	17	2
21	0	0	8	11	18	0	1	6	14	4	0	1	11	12	7
22	0	0	4	9	24	0	0	5	15	5	0	0	12	14	5
23	0	0	1	11	25	0	0	0	9	16	0	0	5	13	13
24	0	0	7	14	16	1	0	3	12	9	0	1	9	18	3
25	0	1	10	19	7	0	2	6	15	2	0	3	17	10	1
26	0	2	8	17	10	0	2	7	11	5	0	2	9	13	7
27	0	0	3	8	26	0	1	5	11	8	0	1	4	15	11
28	0	1	22	10	4	0	6	15	3	1	1	1	23	6	0
29	0	4	15	16	2	0	5	12	6	2	1	7	16	7	0
30	0	2	6	19	10	0	0	11	8	6	1	1	7	19	3
31	0	3	13	12	9	0	1	13	7	4	1	4	20	5	1
32	0	3	10	14	10	0	2	15	5	3	1	7	16	6	1
33	0	6	10	11	10	1	1	16	5	2	1	6	18	5	1
34	0	0	5	18	14	0	0	3	16	6	0	2	14	12	3
35	0	1	5	19	12	0	2	5	11	7	0	6	11	11	3
36	0	0	0	15	22	0	0	3	6	16	0	1	9	10	11
37	0	0	2	19	16	0	0	7	11	7	0	0	6	15	10
38	0	1	17	12	7	0	0	12	12	1	0	1	17	11	2
39	2	4	6	16	9	1	4	8	9	3	1	2	16	12	0
40	0	0	4	11	22	0	0	3	6	16	0	0	2	18	11

n = 37

n = 25

n = 31

TABLE XV
 RESPONSES OF AREA SCHOOL DIRECTORS AND COORDINATORS

Item Number	Directors					Coordinators				
	1	2	3	4	5	1	2	3	4	5
1	0	1	9	15	5	0	0	7	17	13
2	0	2	10	14	4	0	0	16	14	7
3	0	0	2	9	19	0	0	2	16	19
4	0	1	14	12	3	0	3	18	12	4
5	1	5	10	11	3	0	6	10	13	8
6	1	3	14	9	3	0	5	10	16	6
7	0	1	6	9	14	0	0	6	13	18
8	0	0	7	8	15	0	0	4	18	15
9	0	1	18	7	4	0	3	14	13	7
10	0	0	15	9	6	1	3	11	13	9
11	0	1	5	11	13	0	1	4	15	17
12	0	2	11	11	6	0	3	15	10	9
13	0	0	3	7	20	0	0	3	13	21
14	1	0	7	16	6	0	0	12	14	11
15	0	1	10	13	6	0	2	17	9	9
16	0	1	11	10	8	0	1	10	19	7
17	0	2	10	15	3	0	0	12	18	7
18	0	0	4	15	11	0	0	6	10	21
19	0	0	5	10	15	0	0	3	18	16
20	0	3	14	9	4	0	1	14	15	7
21	0	2	5	9	14	0	0	8	11	18
22	0	2	3	13	12	0	0	4	9	24
23	0	0	3	4	23	0	0	1	11	25
24	0	0	7	8	15	0	0	7	14	16
25	0	2	8	14	6	0	1	10	19	7
26	0	3	5	16	6	0	2	8	17	10
27	1	0	3	10	16	0	0	3	8	26
28	1	3	12	12	2	0	1	22	10	4
29	0	2	13	11	4	0	4	15	16	2
30	0	2	8	12	8	0	2	6	19	10
31	0	2	6	10	12	0	3	13	12	9
32	0	0	7	8	15	0	3	10	14	10
33	0	0	9	5	16	0	6	10	11	10
34	0	0	3	9	18	0	0	5	18	14
35	0	0	1	11	18	0	1	5	19	12
36	0	0	3	4	23	0	0	0	15	22
37	0	0	7	12	11	0	0	2	19	16
38	0	0	19	8	3	0	1	17	12	7
39	0	0	11	9	10	2	4	6	16	9
40	0	0	0	8	22	0	0	4	11	22

n = 30

n = 37

TABLE XVI

RESPONSES OF METROPOLITAN SCHOOL DIRECTORS OF VOCATIONAL-
TECHNICAL EDUCATION AND SUPERINTENDENTS

Item Number	Directors					Superintendents				
	1	2	3	4	5	1	2	3	4	5
1	0	2	7	16	7	0	1	10	12	2
2	0	3	10	11	8	0	0	8	9	8
3	0	0	5	8	19	0	0	2	9	14
4	1	1	11	13	6	0	1	14	8	2
5	0	3	8	11	10	0	0	13	5	7
6	0	2	10	13	7	0	2	6	14	3
7	0	0	7	9	16	0	3	6	9	7
8	0	1	4	14	13	0	0	4	16	5
9	0	5	10	13	4	0	1	8	8	8
10	0	4	11	12	5	0	1	7	13	4
11	0	0	2	17	13	0	0	7	15	3
12	0	2	10	9	11	0	5	4	11	5
13	0	0	0	10	22	0	0	5	8	12
14	0	0	8	14	10	1	0	4	14	6
15	0	2	6	19	5	0	0	8	14	3
16	0	1	14	11	6	0	1	12	9	3
17	0	0	9	17	6	0	1	8	15	1
18	0	0	3	10	19	0	0	4	11	10
19	0	1	3	17	11	0	0	6	7	12
20	0	1	13	10	8	0	2	7	13	3
21	0	1	6	14	11	0	1	6	14	4
22	0	0	1	18	13	0	0	5	15	5
23	0	0	1	6	25	0	0	0	9	16
24	0	0	3	11	18	1	0	3	12	9
25	0	1	7	17	7	0	2	6	15	2
26	1	1	9	15	6	0	2	7	11	5
27	0	0	2	10	20	0	1	5	11	8
28	1	1	19	10	1	0	6	15	3	1
29	0	4	13	11	4	0	5	12	6	2
30	1	1	7	16	7	0	0	11	8	6
31	0	0	14	12	6	0	1	13	7	4
32	0	1	14	9	8	0	2	15	5	3
33	0	3	11	8	10	1	1	16	5	2
34	0	0	4	15	13	0	0	3	16	6
35	0	2	7	10	13	0	2	5	11	7
36	0	0	4	12	16	0	0	3	6	16
37	0	0	2	18	12	0	0	7	11	7
38	0	2	16	12	2	0	0	12	12	1
39	0	2	13	12	5	1	4	8	9	3
40	0	0	1	9	22	0	0	3	6	16

n = 32

n = 25

TABLE XVII
 RESPONSES OF JUNIOR COLLEGE DEANS OF VOCATIONAL-
 TECHNICAL EDUCATION AND PRESIDENTS

Item Number	Deans					Presidents				
	1	2	3	4	5	1	2	3	4	5
1	0	1	8	16	13	0	1	8	16	6
2	0	1	10	18	9	0	1	5	16	9
3	0	0	4	9	25	0	0	6	9	16
4	0	1	13	20	4	0	1	9	14	7
5	1	1	10	17	9	1	0	4	13	13
6	1	1	16	14	6	0	1	11	15	4
7	0	0	8	12	18	0	2	10	13	6
8	0	0	10	13	15	0	0	10	11	10
9	1	2	17	15	3	1	0	12	14	4
10	0	3	14	14	7	0	3	13	12	3
11	0	2	9	13	14	0	1	13	7	10
12	0	3	14	13	8	0	2	13	11	5
13	0	0	2	8	28	0	1	5	7	18
14	1	2	10	16	9	0	1	6	15	9
15	1	4	11	14	8	0	3	13	12	3
16	0	4	12	13	9	0	3	12	14	2
17	0	2	13	14	9	0	3	11	14	3
18	0	1	2	18	17	0	1	4	10	16
19	0	2	12	14	10	0	1	16	7	7
20	0	2	13	16	7	0	1	11	17	2
21	0	2	4	15	17	0	1	11	12	7
22	1	0	1	16	20	0	0	12	14	5
23	0	0	1	6	31	0	0	5	13	13
24	1	1	6	15	15	0	1	9	18	3
25	2	0	12	14	10	0	3	17	10	1
26	1	2	10	13	12	0	2	9	13	7
27	1	1	2	12	22	0	1	4	15	11
28	1	5	17	11	4	1	1	23	6	0
29	3	7	13	12	3	1	7	16	7	0
30	1	1	12	13	11	1	1	7	19	3
31	1	3	16	6	12	1	4	20	5	1
32	0	2	12	12	12	1	7	16	6	1
33	0	6	11	12	9	1	6	18	5	1
34	0	0	8	15	15	0	2	14	12	3
35	0	3	5	18	12	0	6	11	11	3
36	0	0	1	14	23	0	1	9	10	11
37	0	0	1	13	24	0	0	6	15	10
38	0	1	12	16	9	0	1	17	11	2
39	0	0	13	14	11	1	2	16	12	0
40	0	0	1	12	25	0	0	2	18	11

n = 38

n = 31

TABLE XVIII
 RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS
 AND CHIEF SCHOOL OFFICERS

Item Number	Voc.-Tech. Administrators					Chief School Officers				
	1	2	3	4	5	1	2	3	4	5
1	0	4	24	47	25	0	2	25	45	21
2	0	6	30	43	21	0	1	29	39	24
3	0	0	11	26	63	0	0	10	34	49
4	1	3	38	45	13	0	5	41	34	13
5	2	9	28	39	22	1	6	27	31	28
6	2	6	40	36	16	0	8	27	45	13
7	0	1	21	30	48	0	5	22	35	31
8	0	1	21	35	43	0	0	18	45	30
9	1	8	45	35	11	1	4	34	35	19
10	0	7	40	35	18	1	7	31	38	16
11	0	3	16	41	40	0	2	24	37	30
12	0	7	35	33	25	0	10	32	32	19
13	0	0	5	25	70	0	1	13	28	51
14	2	2	25	46	25	1	1	22	43	26
15	1	7	27	26	19	0	5	38	35	15
16	0	6	37	34	23	0	5	34	42	12
17	0	4	32	46	18	0	4	31	47	11
18	0	1	9	43	47	0	1	14	31	47
19	0	3	20	41	36	0	1	25	32	35
20	0	6	40	35	19	0	4	32	45	12
21	0	5	15	38	42	0	2	25	37	29
22	1	2	5	47	45	0	0	21	38	34
23	0	0	5	16	79	0	0	6	33	54
24	1	1	16	34	48	1	1	19	44	28
25	2	3	27	45	23	0	6	33	44	10
26	2	6	24	44	24	0	6	24	41	22
27	2	1	7	32	58	0	2	12	34	45
28	3	9	48	33	7	1	8	60	19	5
29	3	13	39	34	11	1	16	43	29	4
30	2	4	27	41	26	1	3	24	46	19
31	1	5	36	28	30	1	8	46	24	14
32	0	3	33	29	35	1	12	41	25	14
33	0	9	31	25	35	2	13	44	21	13
34	0	0	15	39	46	0	2	22	46	23
35	0	5	13	39	43	0	9	21	41	22
36	0	0	8	30	62	0	1	12	31	49
37	0	0	10	43	47	0	0	15	45	33
38	0	3	47	36	14	0	2	46	35	10
39	0	2	37	35	26	4	10	30	37	12
40	0	0	2	29	69	0	0	9	35	49

n = 100

n = 93

APPENDIX C

FREQUENCY TABLES FOR DATA RELATING TO SECONDARY VARIABLES

TABLE XIX
 RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS
 BY HIGHEST DEGREE HELD

Item Number	Baccalaureate					Index Value	Masters					Index Value	Doctorate					Index Value
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
1	0	0	2	6	1	3.88	0	3	18	34	18	3.92	0	1	4	7	6	4.11
2	0	0	2	7	0	3.55	0	4	22	31	16	3.81	0	2	6	5	5	3.72
3	0	0	0	3	6	4.66	0	0	7	22	44	4.50	0	0	4	1	13	4.50
4	0	0	4	5	0	3.55	0	3	30	33	7	3.60	1	0	4	7	6	3.94
5	0	1	5	1	2	3.44	2	6	20	31	14	3.67	0	2	3	7	6	3.94
6	0	1	6	2	0	3.11	2	3	29	26	13	3.67	0	2	5	8	3	3.66
7	0	0	1	5	3	4.22	0	1	16	21	35	4.23	0	0	4	4	10	4.33
8	0	0	2	4	3	4.11	0	1	13	22	37	4.30	0	0	6	9	3	3.83
9	0	0	6	3	0	3.33	1	6	28	27	11	3.56	0	2	11	5	0	3.16
10	0	0	5	4	0	3.44	0	5	30	24	14	3.64	0	2	5	7	4	3.72
11	0	0	0	5	4	4.44	0	3	14	30	26	4.08	0	0	2	6	10	4.44
12	0	0	0	7	2	4.22	0	5	31	22	15	3.64	0	2	4	4	8	4.00
13	0	0	0	2	7	4.77	0	0	4	19	50	4.63	0	0	1	4	13	4.66
14	0	0	2	6	1	3.88	2	2	20	35	14	3.78	0	0	3	5	10	4.38
15	0	0	3	5	1	3.77	1	7	21	32	12	3.78	0	0	3	9	6	4.16
16	0	0	3	4	2	3.88	0	6	28	26	13	3.63	0	0	6	4	8	4.11
17	0	0	1	6	2	4.11	0	3	26	33	11	3.71	0	1	5	7	5	3.88
18	0	0	0	5	4	4.44	0	1	6	30	36	4.38	0	0	3	8	7	4.22
19	0	0	2	3	4	4.55	0	2	14	28	29	4.15	0	1	4	10	3	3.83
20	0	0	3	6	0	3.66	0	5	28	24	16	3.70	0	1	9	5	3	3.55
21	0	0	0	6	3	4.33	0	4	12	28	29	3.76	0	1	3	4	10	4.27
22	0	0	0	6	3	4.33	1	2	4	30	36	4.34	0	0	1	11	6	4.27
23	0	0	0	4	5	4.55	0	0	5	10	58	4.72	0	0	0	2	16	4.88
24	0	0	1	5	3	4.22	1	1	12	22	37	4.27	0	0	3	7	8	4.27
25	0	0	1	6	2	4.11	2	2	19	33	17	3.83	0	1	7	6	4	3.72
26	0	0	0	5	4	4.44	1	6	22	31	13	3.67	1	0	2	8	7	4.11
27	0	0	0	5	4	4.44	2	1	7	23	40	4.34	0	0	0	4	14	4.77
28	0	0	3	6	0	3.64	2	8	36	21	6	3.29	1	1	9	6	1	3.27
29	0	1	3	5	0	3.44	3	8	28	26	8	3.38	0	4	8	3	3	3.27
30	0	0	4	3	2	3.77	1	4	19	32	17	3.82	1	0	4	6	7	4.00
31	0	2	2	2	3	3.66	1	2	28	22	20	3.79	0	1	6	4	7	3.94
32	0	0	5	1	3	3.77	0	2	24	23	24	3.94	0	1	4	5	8	4.11
33	0	0	1	4	4	4.33	0	7	23	17	26	3.84	0	2	7	4	5	3.66
34	0	0	2	1	6	4.44	0	0	11	30	32	4.28	0	0	2	8	8	4.33
35	0	0	1	3	5	4.44	0	3	11	29	30	4.17	0	2	1	7	8	4.16
36	0	0	1	3	5	4.44	0	0	6	21	46	4.54	0	0	1	6	11	4.55
37	0	0	0	6	3	4.33	0	0	8	34	31	4.31	0	0	2	3	13	4.61
38	0	0	5	3	1	3.55	0	3	31	30	9	3.61	0	0	11	3	4	3.61
39	0	0	3	4	2	3.88	0	2	29	26	16	3.76	0	0	5	5	8	4.16
40	0	0	0	4	5	4.55	0	0	1	20	52	4.69	0	0	1	5	12	4.61
	n = 9						n = 73						n = 18					

TABLE XX
 RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS WITH
 ADVANCED DEGREES BY HIGHEST DEGREE MAJOR

Item Number	Vocational					Non-Vocational				
	1	2	3	4	5	1	2	3	4	5
1	0	0	9	18	14	0	4	13	23	10
2	0	1	13	14	13	0	5	15	22	8
3	0	0	4	8	29	0	0	7	15	28
4	0	2	15	19	5	1	1	19	21	8
5	0	5	10	17	9	2	3	13	21	11
6	0	3	16	14	8	2	2	18	20	8
7	0	1	7	13	20	0	0	13	12	25
8	0	0	8	13	20	0	1	11	18	20
9	0	4	16	14	7	1	4	23	18	4
10	0	3	18	10	10	0	4	17	21	8
11	0	2	8	14	17	0	1	8	22	19
12	0	5	14	12	10	0	2	21	14	13
13	0	0	4	13	24	0	0	1	10	39
14	1	0	11	21	8	1	2	12	19	16
15	0	5	11	16	9	1	2	13	25	9
16	0	4	12	14	11	0	2	22	16	10
17	0	1	16	17	7	0	3	15	23	9
18	0	1	4	16	20	0	0	5	22	23
19	0	2	5	16	18	0	1	13	22	14
20	0	5	15	12	9	0	1	22	17	10
21	0	4	6	13	18	0	1	9	19	21
22	0	1	2	19	19	1	1	3	22	23
23	0	0	3	4	34	0	0	2	8	40
24	0	1	9	7	24	1	0	6	22	21
25	2	1	10	17	11	0	2	16	22	10
26	1	4	12	12	12	1	2	12	27	8
27	1	0	5	10	25	1	1	2	17	29
28	1	7	18	9	6	2	2	27	18	1
29	2	7	17	11	4	1	5	19	18	7
30	1	4	11	15	10	1	0	12	23	14
31	0	1	15	13	12	1	2	19	13	15
32	0	2	12	12	15	0	1	16	16	17
33	0	4	12	10	15	0	5	18	11	16
34	0	0	8	15	18	0	0	5	23	22
35	0	2	8	18	13	0	3	4	18	25
36	0	0	5	8	28	0	0	2	19	29
37	0	0	7	17	17	0	0	3	20	27
38	0	3	21	11	6	0	0	21	22	7
39	0	2	15	10	14	0	0	19	21	10
40	0	0	1	11	29	0	0	1	14	35

n = 41

n = 50

TABLE XXI

RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS
BY YEARS SINCE OBTAINING UNDERGRADUATE DEGREE

Item Number	1 - 16 Years					17 - 32 Years					33+ Years				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	0	3	4	17	2	0	1	13	18	15	0	0	6	12	9
2	0	3	9	12	2	0	3	14	15	15	0	0	7	16	4
3	0	0	3	6	17	0	0	5	10	32	0	0	3	10	14
4	1	2	11	9	3	0	1	15	25	6	0	0	12	12	3
5	0	5	11	4	6	1	4	10	24	8	1	0	7	10	9
6	1	4	13	4	4	1	2	14	22	8	0	0	14	10	3
7	0	1	6	7	12	0	0	11	11	25	0	0	3	12	12
8	0	0	4	11	11	0	1	10	15	21	0	0	7	10	10
9	1	1	11	9	4	0	6	18	17	6	0	1	17	8	1
10	0	1	10	10	5	0	4	15	19	9	0	2	15	6	4
11	0	2	5	7	12	0	1	5	19	22	0	0	5	16	6
12	0	2	3	13	8	0	4	21	9	13	0	1	12	10	4
13	0	0	1	1	24	0	0	2	13	32	0	0	1	12	14
14	0	1	5	11	9	2	0	12	22	11	0	1	8	13	5
15	1	2	6	12	5	0	3	13	22	9	0	2	9	11	5
16	0	1	7	10	8	0	3	17	14	13	0	2	12	11	2
17	0	2	7	14	3	0	1	15	22	9	0	1	10	10	6
18	0	0	1	12	13	0	1	4	20	22	0	0	4	11	12
19	0	2	5	8	11	0	1	8	20	18	0	0	7	12	8
20	0	1	12	6	7	0	4	14	19	10	0	1	14	11	1
21	0	1	3	10	12	0	3	6	16	22	0	1	6	11	9
22	1	1	1	11	12	0	1	3	25	18	0	0	1	12	14
23	0	0	1	4	21	0	0	2	4	41	0	0	2	7	18
24	1	0	1	7	17	0	0	11	12	24	0	1	4	15	7
25	0	3	4	12	7	1	0	11	21	14	1	0	13	12	1
26	1	3	3	15	4	0	2	11	18	16	1	1	9	11	5
27	1	1	1	7	16	1	0	3	10	33	0	0	3	15	9
28	1	3	11	10	1	1	5	20	17	4	1	1	17	7	1
29	1	3	13	7	2	1	7	16	17	6	1	3	11	9	3
30	1	0	10	8	7	0	3	11	18	15	1	1	5	15	5
31	1	1	8	6	10	0	3	14	13	17	0	2	14	9	3
32	0	1	8	7	10	0	1	12	13	21	0	1	13	9	4
33	0	3	6	4	13	0	2	15	14	16	0	4	10	7	6
34	0	0	1	9	16	0	0	7	19	21	0	0	7	11	9
35	0	3	2	11	10	0	1	5	15	26	0	1	6	13	7
36	0	0	1	5	20	0	0	3	14	30	0	0	4	11	12
37	0	0	4	9	13	0	0	5	13	29	0	0	2	21	4
38	0	0	11	11	4	0	1	23	15	8	0	2	13	10	2
39	0	0	9	7	10	0	0	14	18	15	0	2	14	10	1
40	0	0	1	8	17	0	0	1	8	38	0	0	0	13	14

n = 26

n = 47

n = 27

TABLE XXII
 RESPONSES OF VOCATIONAL-TECHNICAL ADMINISTRATORS
 BY YEARS OF ADMINISTRATIVE EXPERIENCE

Item Number	1 - 8 Years					9 - 16 Years					17+ Years				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	0	3	11	20	6	0	1	8	18	9	0	0	5	9	10
2	0	3	17	15	5	0	3	10	17	6	0	0	3	11	10
3	0	0	2	9	29	0	0	4	12	20	0	0	5	5	14
4	1	1	18	17	3	0	2	12	15	7	0	0	8	13	3
5	0	7	13	11	9	1	2	8	18	7	1	0	7	10	6
6	1	4	19	11	5	1	2	14	14	5	0	0	7	11	6
7	0	0	10	8	22	0	1	8	12	15	0	0	3	10	11
8	0	1	8	12	19	0	0	7	16	13	0	0	6	7	11
9	1	5	17	12	5	0	2	18	10	6	0	1	10	13	0
10	0	3	18	13	6	0	2	14	13	7	0	2	8	9	5
11	0	1	9	13	17	0	2	3	15	16	0	0	4	13	7
12	0	4	10	13	13	0	2	17	11	4	0	1	6	9	8
13	0	0	1	6	33	0	0	2	12	22	0	0	2	7	15
14	1	1	8	18	12	1	1	10	17	7	0	0	7	11	6
15	1	2	13	18	6	0	3	10	18	5	0	2	4	10	8
16	0	2	16	13	9	0	2	13	11	10	0	2	8	10	4
17	0	2	15	16	7	0	1	11	16	8	0	1	6	14	3
18	0	0	2	19	19	0	1	5	13	17	0	0	2	11	11
19	0	2	7	17	14	0	1	5	15	15	0	0	8	9	7
20	0	2	20	12	6	0	3	12	15	6	0	1	8	8	7
21	0	3	6	15	16	0	1	7	13	15	0	1	2	10	11
22	1	0	2	19	18	0	2	2	17	15	0	0	1	11	12
23	0	0	3	6	31	0	0	1	4	31	0	0	1	6	17
24	1	0	6	13	20	0	0	8	10	18	0	1	2	11	10
25	0	2	9	17	12	1	1	11	16	7	1	0	7	12	4
26	1	4	5	14	16	0	2	12	17	5	1	0	7	13	3
27	1	1	2	9	27	1	0	3	15	17	0	0	2	8	14
28	1	4	18	14	3	1	4	18	11	2	1	1	12	8	2
29	1	6	18	12	3	1	4	15	13	3	1	3	6	9	5
30	1	3	9	12	15	0	0	12	18	6	1	1	6	11	5
31	1	5	12	8	14	0	0	17	11	8	0	0	7	9	8
32	0	2	14	9	15	0	0	11	12	13	0	1	8	8	7
33	0	3	16	8	13	0	4	7	10	15	0	2	8	7	7
34	0	0	4	15	21	0	0	7	14	15	0	0	4	10	10
35	0	4	4	17	15	0	1	3	15	17	0	0	6	7	11
36	0	0	2	12	26	0	0	4	10	22	0	0	2	8	14
37	0	0	2	19	19	0	0	7	10	19	0	0	1	14	9
38	0	0	23	11	6	0	0	14	17	5	0	3	10	8	3
39	0	1	13	11	15	0	0	13	15	8	0	1	11	9	3
40	0	0	0	12	28	0	0	2	8	26	0	0	0	9	15

n = 40

n = 36

n = 24

APPENDIX D

ADDITIONAL COMPETENCIES SUGGESTED BY RESPONDENTS

TABLE XXIII
 ADDITIONAL COMPETENCY ITEMS SUGGESTED BY RESPONDENTS

Competency Item	Rating (if given)
(These items are reproduced unedited from the questionnaires.)	
<u>From Area School Directors</u> - 28 items suggested by 10 respondents	
Show Enthusiasm for Program	
Must be a Good Public Speaker	
Must be Firm and Fair	
Must Believe in Vocational-Technical Education	
Personnel Procurement Means and Methods	5
Personnel Evaluation Devices and Techniques	5
Setting Behavioral Objectives	5
Decision Making - Determining Priorities	5
Philosophy of Vocational Education	5
Understanding Society's Structure	5
Cultural Anthropology	5
School Law	5
Business and Industrial Advisory Committees	5
Professional Organizations	4
Current Issues in State and Federal Legislative Process	4
General Course in Public Relations	5
Appreciation of What we Call "Work"	5
On-the-Job Training - in Area Employment Security Offices	
Appreciation of Top and Bottom Student	5
Guidance and Counseling - Understanding of all People - not Just a Small Group	4
School Facilities Construction, Etc.	5
Wide Variety Knowledge Trades (Many Trades)	5
A Sound Philosophy for Vocational Education	5
History and Development of Vocational Education	5
American Business and Industrial Growth	5
Conducting and Planning In-Service Teacher Training Programs	6

TABLE XXIII (Continued)

At Least Three Years of Work Experience Outside the Field of Education	
Individualized Instruction	5
<u>From Metropolitan School Directors</u> - 25 items suggested by 12 respondents	
Working Balance Between Labor and Management	4
Effective Employee Negotiations	4
Accountability, Assessment, and Evaluation	5
Establishment of Goals in Terms of Behavioral Objectives	5
Career Development	
Labor Laws - Unions	4
Teacher Designed Media	5
Procedures for Selecting Instructional Materials and Equipment	4
Evaluation of Maintenance Programs	4
Accountability (Placement Follow-Up)	5
Administrative Position in Collective Bargaining Process	4
Preparation of Funding Applications (Federal or Otherwise)	5
"Image" creation - for the Educator, and for his System	5
Developing Leadership Training Programs	
Intern Experience (Business and Industry) A Minimum of One Year; Desirable - Three Year Minimum	6
"On-the-Job Apprenticeship" for Both Master and Doctoral Candidates	3
Methods of Overcoming Biases in Vocational Education Versus Academic Education	5
How to Plan Programs and Budgets for Vocational Education	5
Job Training for Assistants	4
Graduate Fellowships for Vocational Administrators	4
We have to develop more competencies through <u>experience</u> and <u>training</u> as well as in the classrooms of our colleges.	5
Interpretation of Federal and State Legislation	5
Parental-Guardian Participation in Occupational Programs	5
Budget Procedures	5
Occupational Information - Student Centers	5

TABLE XXIII (Continued)

From Junior College Deans - 38 items suggested by 16 respondents

Awareness of the Literature	4
Working with Advisory Committees	5
"Project" and "Grant" Procedures and Applications	5
Counseling, Guidance, and Student Recruitment	5
Organized Labor and Education	4
Apprenticeship	4
Knowledge of Management by Objective	
Gaining Support of Local Administration	5
Gaining Support of Academic Community	4
Improving Response Time to Meet Needs	5
In-Depth Area Planning at all Levels	5
An Effective Student Follow-Up System with Feedback to STAFF!	5
Active Specialty Advisory Committees	5
Project Writing	5
Local Budgeting	5
Student Personnel Services	5
Community Service and Evening Programs	
Federal Legislation State Plans and Grants	
Developing Effective Relations with High Schools Served by the College	5
Developing Effective Counseling Relations with Students in the College	5
Federal Report Writing	5
Political Science	5
Knowledge and Application of PPBS	5
Administering a Collective Bargaining Agreement	4
Effective Utilization of Students in Curriculum Development	5
Effective Use of Counselors	4
Utilization of Advisory Committees	5
Sound, Simple, Uniform Data Gathering	5
Standardize Required Forms for Funding	5
Commitment to Vocational Education	5
Less Pure Research - More Application	5

TABLE XXIII (Continued)

Too much money has gone for pure research projects and innovation for personal advancement rather than to assist the districts and students in the basics necessary for success.	
Federal, State, Local, Financing for Vocational Programs	5
Aspects of Mental Health	4
Human Relations in Education	5
Developing In-Service Training Programs for Technical Instructors	5
Effective Use of General Advisory Committees	5
Establishing Philosophy of Institutions	5
<u>From Area School Coordinators - 28 items suggested by 12 respondents</u>	
Basic Educational Administration - (1) First Things First, (2) Sharing Responsibility	
Effective Organization and Use of Advisory Committees	4
Basic Philosophy and Principles of Occupational Education	5
Personnel Management and Development	4
A Sincere Understanding and Appreciation of Minority Group Problems	
More Expertise in the Financial Area Than Listed Above	
Program Promotion and Recruitment Techniques	
Cost Accountability	4
Performance Indicators (Input-Output)	
Budget Preparation	
Developing Pre-Vocational Programs	4
Relationship with Board of Education	5
Working with Handicapped and Disadvantaged	5
Business Administration	
Philosophy of Vocational Education	5
Personnel Management	4
In-Service Teacher Training	4
Use of Advisory Committees	4
Facilities Planning	4
Planning Vocational School Facilities	5
Personnel (Employment and Working With)	5
Pupil Accounting	5

TABLE XXIII (Continued)

Office Organization and Communications	4
Coordinated Vocational Education Youth Clubs	3
Developing a School Health and Safety Program	5
Negotiations in Labor Relations Conferences	4
Current Developments in Industry and Business	5
Current Developments in Education	5
<u>From Metropolitan School Superintendents</u> - 15 items suggested by 3 respondents	
In-Service Training and Re-Training of Teachers	5
Other Training Resources and Methods	4
Relationships with Higher Institutions of Learning	4
Occupational Training Needs of the Handicapped	3
Effective Speaking and Writing	5
Use of Community Advisory Groups	5
Trends in General (Non-Vocational) Education	4
Pupil-Teacher-Class Scheduling Procedures	3
Human Relations in a School Building: Pupils, Teachers Staff	5
Current Problems of Student Involvement in School Affairs	
The Problem of Narcotic Addiction	
Personnel Problems Connected with Segregated Schools and Communities	
Problems of School Plant and Planning of New Buildings	
Problems Connected with Teacher Unions and Supervisors' Associations	
Pupil Draft Problems	
<u>From Junior College Presidents</u> - 4 items suggested by 3 respondents	
Utilizing Social Skills in Administration	5
Effective Work Experience in Vocational Areas, if possible	5
Ability to Speak Effectively on Vocational Education	4
Recruitment, Selection, and Interviewing of Faculty	5

VITA

Lloyd Delano Briggs

Candidate for the Degree of

Doctor of Education

Thesis: BASIC COMPETENCIES NECESSARY FOR ADMINISTRATORS OF VOCATIONAL AND TECHNICAL EDUCATION

Major Field: Higher Education

Biographical:

Personal Data: Born near Ada, Oklahoma, December 21, 1933, the son of Mr. and Mrs. Marvin Utah Briggs.

Education: Graduated from Vanoss High School, Vanoss, Oklahoma, in May, 1951; attended East Central State College in 1952; received the Associate of Science degree in Electronics from Oklahoma State University in 1957; received the Bachelor of Science degree in Physics from Oklahoma State University in 1960; received the Master of Science degree in Technical Education from Oklahoma State University in 1965; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1971.

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