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SELECTED ROLES/FUNCTIONS OF
MICHIGAN CAREER-TECHNICAL ADMINISTRATORS:
A STUDY OF PERCEIVED NEEDS FOR PREPARATION
AND CONTINUING PROFESSIONAL DEVELOPMENT

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Janet M. Burns

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SELECTED ROLES/FUNCTIONS OF MICHIGAN CAREER-TECHNICAL ADMINISTRATORS: A STUDY OF PERCEIVED NEEDS FOR PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT

By

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ABSTRACT

SELECTED ROLES/FUNCTIONS OF
MICHIGAN CAREER-TECHNICAL EDUCATION ADMINISTRATORS:
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The researcher's purposes were to identify the roles/functions of Michigan career-technical education (CTE) administrators and to identify their personal needs for further preparation and continuing professional development.

The population for the study consisted of 224 secondary CTE administrators identified in the 1990-91 Michigan Directory of Vocational Education Contact Persons. CTE administrators responded to a 99-item survey questionnaire which described various roles/functions associated with the administration of CTE programs under nine major categories: Program Planning, Development and Evaluation; Instructional Management; Student Services; Personnel Management; Staff Development; Professional Relations and Self-Development; School-Community Relations; Facilities and Equipment Management; and Business and Financial Management. For each role descriptor, respondents were asked to indicate how important it was

to their success as a CTE administrator and their personal need for further preparation and continuing professional development.

All of the nine major categories were perceived to be "moderately important" to "very important" to the CTE administrators' position. However, Professional Relations and Self-Development; Program Planning, Development and Evaluation; and Staff Development were perceived to be the most important categories.

There were significant differences when respondents were compared by educational background, tenure in position and educational setting, with regard to their perceptions about the importance of their administrative roles/functions within the nine categories.

CTE administrators expressed a "moderate need" for further preparation in the major categories of roles/functions. The category of Program Planning, Development and Evaluation was identified as the category in which CTE administrators had the highest need for professional development. Staff Development was ranked second, and Professional Relations and Self-Development was ranked third.

There were no significant differences when respondents were compared by educational background and tenure in position, with regard to their perception of their needs for further preparation within the nine major categories. However, significant differences

were found in the categories of Student Services, Facilities and Equipment Management, and Business and Financial Management when CTE administrators were identified by educational setting.

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Special thanks to my major professor and dissertation chairman, Dr. Cas Heilman, for his guidance and counsel. His friendship and willingness to offer direction were most appreciated.

Grateful appreciation is extended to my doctoral committee members, Drs. Richard Gardner, Eldon Nonnamaker, Peggy Riethmiller and the late Rex Ray, for their helpful suggestions and professional support.

I also wish to thank Dr. Ernest Bauer, Oakland Schools, for his invaluable assistance in the development of the survey instrument and the analysis of the data. His patience was commendable.

Moral support, tidbits of humor and continual encouragement were greatly appreciated from Drs. Barbara Atkins and Clifford Jump; and colleagues from the Michigan Council on Vocational Education, the Michigan Department of Education, the Oakland County Vocational Administrators Association and the Lake Orion Community Schools.

Lastly, a deep appreciation and heartfelt thanks are extended to my family for their understanding and support while I pursued my personal goal. It has been a memorable accomplishment!!!

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CHAPTER I

THE PROBLEM

Introduction

Since the report A Nation At Risk was released in 1983, there has been continual public demand for accountability in schools (Gardner, et al., 1983). Most recently, there have been concerns which have led to detailed examinations of and recommendations for reform in educational leadership. Various reports (National Commission on Excellence in Educational Administration, 1987; Shibles, 1988) have supported major changes to the field. These reports have echoed the need to establish a clearer definition of what constitutes good educational leadership. They have suggested that more relevant preparation programs be developed for administrators, an improvement made in the administrator selection process, and the establishment of administrator certification guidelines. They further suggest that educational agencies and colleges and universities form better linkages in order to develop activities leading to further preparation and continuing professional development. These changes have reinforced the need for competent persons to guide and direct educational programs.

One such program, which has received increasing visibility, prepares youth and adults for employment. These programs can be found in the K-12 educational system as part of vocational-technical education, in the community college system as occupational education, and in the university professional education programs.

In this study, the roles/functions of career-technical education (synonymous with vocational-technical education) leaders of such programs at the secondary level in Michigan's public schools will be explored. Educational leaders at this level include those professionals who administer programs of career-technical education, i. e., Directors of Career-Technical Education, Shared-Time Directors of Career-Technical Education, Regional Career-Technical Education Administrators and Principals of Area Career-Technical Education Centers.

The continual challenge for educational institutions is to recruit persons who can serve in these meaningful leadership roles. Based on the statistics from the 1986 and 1987 Michigan Public School Retirement Reports, there will be significant numbers of teachers and school administrators who will be eligible for retirement in 1991. Under the State of Michigan Retirement Plan (Act 91 of the Public Acts of 1985), a public school employee is considered eligible for retirement if s/he satisfies the criteria of age plus experience equal to or greater than 80. The 1987 Report indicated that 4,199 administrators and 24,238 teachers could be eligible for retirement under this plan. These figures represent

60% and 27% of the population of school administrators and teachers currently employed.

The potential turnover is very unsettling for career-technical education. The effect could create a significant void in the number of trained individuals able to assume leadership positions in this area. For example, teacher preparation institutions must provide a supply of vocationally certified and qualified teachers and they must also provide qualified administrators. It is unlikely that the teacher preparation institutions will be able to meet the demand since graduate programs, designed specifically for the preparation of these individuals, have dwindled drastically over the past decade. The shortage may be attributed to declining enrollments, faculty retirement, attrition and loss of support. As of Fall 1991, there will be no doctoral programs in career-technical education in Michigan. Most Masters and Educational Specialist degree programs have either been dropped or have been subsumed by general administration degree programs.

Coupled with the need to have up-to-date preparation programs for aspiring career-technical administrators is the need to determine continuing professional development areas for practicing administrators. Effective July 1, 1988, Public Act 163 required administrators in Michigan public schools to attain certification as school administrators. An administrator's certificate is valid for five years and must be renewed every five years by earning college credit and/or State Board Continuing Education Units (SB-CEUs). Appropriate training programs must be designed to meet this new

mandate. To remain certified, a six-semester hour requirement or its equivalent in SB-CEUs is required over each five year period (Michigan Department of Education, 1988).

In response to these concerns, the Michigan Department of Education, Career-Technical Education Service has supported a series of activities aimed at the existing career-technical administrators and the recruitment and training of new administrative candidates.

One such activity was the Leadership Development Program which, until July, 1990, trained future administrative candidates, particularly those who were female or members of minority groups, for career-technical leadership positions. For seven years, the Leadership Development Program, directed first by Michigan State University and later by Ferris State University, had recruited, selected, assessed and trained approximately 115 individuals for anticipated career-technical leadership positions.

Initially, the program design was based upon the 166 administrative competencies identified and nationally validated by the National Center for Vocational Education (Norton et al., 1977). The competencies were identified by practicing administrators and grouped by roles/functions into nine major categories. For example, the item, Conduct student follow-up studies, is grouped under the major category of Program Planning, Development and Evaluation.

From the original 166 competencies, Moore and Ray (1985) conducted a study which determined the competencies "absolutely needed" by first-year career-technical education administrators in Michigan. The study resulted in 67 competencies which were later

used to develop the year-long program comprised of an intensive five-week summer instructional program, an internship experience with an experienced career-technical administrator/mentor, and monthly weekend instructional programs. Successful completers of the Leadership Development Program were given a certificate and were eligible to be reimbursed as career-technical education administrators (Michigan Department of Education, 1989). In addition, participants in the program had the opportunity to obtain graduate credit toward advanced degrees in administration of career-technical or occupational education programs.

Problem Statement

In the last ten years, there have been a number of educational initiatives that will demand new applications of knowledges and skills in the area of career-technical education. Some initiatives have emerged into new legislation which requires emphasizing the integration of academic and vocational education, providing greater opportunities for disadvantaged students, evaluating programs based on performance measures and standards, developing a combined secondary and post-secondary vocational education program which leads to an associate degree, and working closely with business and labor organizations to develop school-to-work transition programs.

There is limited information available on the current roles/functions of practicing career-technical administrators and perceived needs for preparation and continuing professional development.

Given the fact that Michigan has implemented a new administrator certification program and that an estimated 60% of all practicing school administrators may retire by 1991, it was necessary for a benchmark to be determined so that future career-technical leaders could be prepared for expected roles/functions. Secondly, it was necessary that information be available to develop continuing professional development programs/activities for practicing administrators.

To date, a study has not been conducted to update the 166 administrative competencies identified by the National Center for Vocational Education (Norton et al., 1977) nor has information been collected on the continuing professional development needs of Michigan career-technical education administrators.

Purpose of the Study

The primary purposes of the study were to collect and analyze data to identify the roles/functions of Michigan secondary career-technical education administrators and to identify their personal needs for further preparation and continuing professional development.

In addition, the study addressed the self-perceived differences between survey respondents according to the independent variables of educational background, tenure in position and educational setting.

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Research Questions

The following research questions were addressed in this study:

1. What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

2. What differences exist among career-technical education administrators regarding their perceptions about administrator roles/functions, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

3. What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

4. What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

Significance of the Study

It is anticipated that the findings and analysis from the study will be useful in supporting the suggested criteria for administrator certification, gaining reimbursement as a career-technical administrator, and increasing the awareness of individuals who are responsible for recruiting career-technical education

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administrators. The information can provide direction for college and university school administrator preparation programs and assist professional organizations, colleges and universities and local and intermediate school districts in designing effective continuing professional development programs for practicing administrators.

Delimitations

This study was delimited to the population of Michigan secondary career-technical administrators identified in the 1990-91 Michigan Directory of Vocational Education Contact Persons. The directory was published by the Michigan Department of Education, P. O. Box 30009, Lansing, Michigan 48909. Educational leaders at this level included those professionals who administer programs of career-technical education, i. e., Directors of Career-Technical Education, Shared-Time Directors of Career-Technical Education, Regional Career-Technical Education Administrators and Principals of Area Career-Technical Education Centers.

Definition of Terms

The following terms are defined in the context in which they are used in this study.

Area Career-Technical Center

A designated facility which is supported by a joint agreement whereby two or more local educational agencies cooperate in financing the operation of vocational-technical education programs.

Career-technical Education

Synonymous with vocational-technical education.

Continuing Professional Development

Any planned learning activity provided to individuals for the purpose of improving the performance of such persons. Synonymous with in-service education, staff development or professional development.

Intermediate School District (ISD)

A legal entity representing a group of local educational agencies, in geographic proximity to each other and organized to provide technical assistance, leadership and coordination of services.

Local Education Agency (LEA)

A local school district.

Role/Function

A related task or activity to be performed by persons occupying a specified position within an organization.

Secondary CTE Administrators

Persons who oversee career-technical education programs in comprehensive high schools, area career-technical education centers or within intermediate school districts, i. e., Directors of

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Career-Technical Education, Shared-Time Directors of Career-Technical Education, Regional Career-Technical Education Administrators and Principals of Area Career-Technical Education Centers.

Vocational-technical Education

Organized educational programs which are directly related to the preparation of individuals for employment, or for additional preparation for a career requiring a baccalaureate or advanced degree.

Summary

In this study, the researcher examined the perceptions of Michigan career-technical education administrators in two areas: (a) the range of importance in their job roles/functions, and (b) the needs identified for further preparation and continuing professional development to respond to their job roles/functions.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The importance of professional practice to the function of society has been well documented. Schon (1983) reminds us that virtually all of society's business is conducted by professionals with special training, i. e., training to provide health care, operate businesses, adjudicate laws, manage cities, design and construct buildings and teach children. We are faced with providing leaders who can orchestrate the talents of these professionals so that patients get well, goods are produced, people receive due process and students learn. There are questions about what kind of leadership is appropriate and whether that leadership is universal for all types of organizations.

Definition of Leadership

Defining the term "leadership" is not a modern problem. Biographers, historians, social scientists and educational researchers have discussed the concept of leadership for decades. Bennis (1984, Bennis & Narus, 1985) notes that there are more than 350 definitions for leadership recorded in the literature. According to Wexley and Yukl (1977), ". . . leadership involves

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influencing people to exert more effort in some task or to change their behavior." Denmark (1983) maintains that leadership should be viewed ". . . as an interactive process between the individual and the characteristics of a given situation---each affecting the other. Leaders both influence and are influenced by their followers." To Hersey and Blanchard (1982), leadership is ". . . the process of influencing the activities of an individual or a group in efforts toward goal achievement in a given situation. In essence, leadership involves accomplishing goals with and through people." To Terry (1960), "Leadership is the activity of influencing people to strive willingly for group objectives." According to Tannenbaum, Weschler and Massarik (1961), leadership is an ". . . interpersonal influence exercised in a situation and directed, through the communication process, toward the attainment of a specialized goal or goals." Koontz and O'Donnell (1959) state that ". . . leadership is influencing people to follow in the achievement of a common goal." Lastly, Fleishman (1973) maintains that leadership is ". . . attempts at interpersonal influence directed through the communication process toward the attainment of some goal or goals."

What constantly comes to mind and is stated frequently by these authors is leadership is an "influence" and a "process." Influence implies an interaction between people accompanied by an alteration in behavior. Process implies activities or a series of actions leading to some kind of result. Leadership, therefore, is not unidirectional, but involves interaction, through communication, with followers in a given situation where cooperation is encouraged

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to carry out activities that lead to the achievement of a common goal. It is the quality of leadership that ultimately determines which organizations prosper and which fail (Bennis, 1984).

Leadership Development and Professional Development

In order to enhance the probability of successful performance of a leader in a wide variety of situations, leadership development is needed to cultivate selected attributes (Bass, 1981). These attributes are common to leadership behavior in all professional roles. For example, in education, administrators should have them, teachers should have them, and counselors should have them. But in order to perform successfully as administrators or teachers, individuals need more than the common leadership attributes. They also need the knowledge and skill attributes that are unique to their given roles. These are the attributes that distinguish administrators from teachers, teachers from counselors, counselors from administrators, and that determines whether individuals can perform the specific occupational or technical tasks of their professional roles.

Interviews with leadership trainers and evaluations of leadership development activities reported in the literature reveal that some of the characteristics, knowledge and skills common to successful leaders can be significantly influenced by a reasonable amount of continual planned education and training (Bass, 1981; Lester, 1981; Manz & Sims, 1986; Yammarino & Bass, 1988). Thus, leadership development is only one part of professional development.

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Professional development consists of cultivating both the leadership attributes and the attributes that facilitate successful performance in a particular professional role.

Professional development is not a new term nor a new phenomenon to educators. It can be traced back, as in-service education, to the 1850s when teachers received their basic instruction from laymen in the community, to the 1900s, when programs were geared to help teachers obtain college degrees. The first documented distinction between pre-service education and in-service education was highlighted in a major eight-year educational study, that began in 1933, involving universities and 30 school districts (Tyler, 1970).

Recent definitions of in-service education range from "the continual updating of the practitioner in the classroom" (Meade, 1971) to "any planned learning opportunities provided to personnel of the local district or other authorized agency for purposes of improving the performance of such personnel in already held or assigned positions" (Harris, 1980).

In-service education is often used interchangeably with staff development, continuing education and professional development. It is further defined as "any professional development that a person undertakes, singly or with others, after receiving his/her initial teaching certificate and after beginning professional practice" (Edelfelt & Beegle, 1977).

Although there has been considerable literature written on the continuing professional development of teachers (Cohen, 1981; Lawrence, 1974; Showers, Joyce, & Bennett 1987; Sparks, 1983;

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Sparks & Loucks-Horsley, 1989), a recent legislative mandate has been issued for aspiring and practicing administrators. Public Act 163, effective July 1, 1988, required administrators in Michigan public schools to attain certification as school administrators. An administrator's certificate is valid for five years and must be renewed every five years upon completion of college credit and/or State Board Continuing Education Units (SB-CEUs). Appropriate training programs must be designed to meet this new mandate. To remain certified, a six-semester hour requirement or its equivalent in SB-CEUs is required over each five year period (Michigan Department of Education, 1988).

Leadership in Educational Administration

The literature often considers administration as something different from leadership. Little (1970) considers administration as having two functions---leadership and management. In his context, leadership is "living ahead of the institution" and management is "arranging and operating the institution."

Weber and Weber (1961) tended to agree with Little when they state the following.

> To refer to educational administration as leadership is to assign it a much more significant role than mere management. It is far too limited a view to conceive of administration in strictly operational terms. Management is an important part of administration, but it is only a part; management is not synonymous with leadership. . . . Leadership, on the other hand, attaches paramount importance to the progressive development of a school program which is the outgrowth of vital intellectual activity by all those in the community who are concerned with the growth and development of the young. . . .

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> Administrators may or may not be responsible for the introduction of new ideas, in fact, in many situations the administration's leadership role may be that of encouraging others to make contributions to problems.

For the purpose of this study, the terms "administration" and "leadership" will be synonymous.

Over the past several years, great concern has been expressed about the preparation of educational administrators. Cunningham (1985), for example, raised a number of significant questions about what it may take to provide meaningful leadership preparation. He noted that in past years "leaders have often simply emerged; they have drifted into positions of leadership or been drafted for leadership roles." Concern has led to detailed examinations of and recommendations for reform in educational administrator preparation.

A report released by the National Commission on Excellence in Educational Administration (1987) supported major changes to the field including establishing a clearer definition of what constitutes good educational leadership, developing more relevant preparation programs, improving the administrator selection process, establishing licensing systems and forming better linkages between agencies and universities.

The American Association of Colleges for Teacher Education (AACTE) recently released a report that echoed the need to provide improved school leadership preparation (Shibles, 1988). Recommendations developed by AACTE's Subcommittee on the Preparation of School Administrators focused on the improvement of university preparation programs in the areas of program content, program structure, recruitment and selection, instructional approaches,

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student research, professional development programs and university faculty.

As with all institutional levels of education, there are many administrative functions. These functions include managing entire organizations, buildings and programs. One such program, which has received increasing visibility, prepares youth and adults for employment. These programs can be found in the K-12 educational system as part of vocational-technical education, in the community college system as occupational education, and in the university professional education programs. For the purpose of this study, the career-technical education programs (synonymous with vocational-technical education), in Michigan's public schools at the secondary level, will be explored. Educational leaders at this level include those professionals who administer programs of career-technical education, i. e., Directors of Career-Technical Education, Shared-Time Directors of Career-Technical Education, Regional Career-Technical Education Administrators and Principals of Area Career-Technical Education Centers. Like their general educational administrator counterparts, they face similar challenges in terms of preparing persons who can serve in meaningful leadership roles.

Leadership in Vocational-Technical Education Administration

The development of leadership personnel through advanced graduate study was a relatively new undertaking for the vocational-technical education enterprise. In the past, vocational leaders emerged into such roles with little or no formal

preparation, other than specialized training within their respective service areas, i. e., Home Economics, Business, Marketing and Health (Wenrich & Wenrich, 1974). The subsequent development of such leaders consisted mainly of short-term conference, seminar or workshop attendance, which was not an effective means of providing a "well-developed and articulated plan" of leadership development which was sensitive to individual needs (Perazzoli, 1978).

In 1963, the Panel of Consultants on Vocational Education voiced the need for a new breed of vocational-technical education leadership that was "dynamic and forward-looking, and able to adapt its thinking to the constantly changing situation which it faces," in their report, Education for a Changing World of Work. The former president of the American Vocational Association made a similar statement.

> Like business and industry, vocational education is engaged in a struggle to adapt to change---a struggle to survive. Simply to remain a viable part of American education, we need astute, creative leaders at all levels---leaders for the ongoing work of delivering vocational education to the youth and adults of this nation, and leaders for our professional associations. (Edmunds, 1988).

This need was further undergirded as the Vocational Education Act of 1963 changed and expanded the focus of vocational-technical education, providing funds to prepare individuals for any recognized occupation below the baccalaureate degree level.

In 1968, for the first time in the history of vocational-technical education, national attention was given to the development of a systematic, long-term program for training vocational leadership personnel. The Vocational Education Amendments of 1968

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amended the Education Professions Development Act (EPDA) of 1965, which had virtually ignored vocational-technical education personnel needs, adding Part F, Training and Development Programs for Vocational Education Personnel. Section 552, Part F, entitled Leadership Development Awards, provided funding for experienced vocational-technical educators to pursue full-time advanced graduate study in vocational-technical education. The purpose of this section was to "meet the needs in all the states for qualified vocational-technical education personnel" (P.L. 90-576, 1968). More specifically, Section 552 provided funds to:

1. develop a cadre of vocational-technical leadership personnel which met the needs in all the states equitably, and

2. encourage the development of comprehensive programs in vocational-technical education at the graduate level.

Vocational-technical education administrators, supervisors, teacher educators, researchers and instructors were specifically identified in the Act as target populations for the personnel development program. The original intent of the program was to provide funding for experienced vocational-technical educators to spend up to three years in advanced graduate study in vocational-technical education leading to a doctoral degree. In 1973, the program was changed to a one-year leadership development program with an emphasis on the development of leadership skills, rather than completing a doctoral degree. In 1978, the program was

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again modified to reflect its original intent. Funding for the EPDA 552 program was discontinued in 1981.

Most states took advantage of the legislation which allowed them to use federal funds for personnel and leadership development activities in vocational-technical education. In Michigan, the Michigan Department of Education, Career-Technical Education Service began supporting career-technical leadership training, with reimbursement to sponsoring school districts and community colleges, utilizing funds from the EPDA and later program improvement funds from the Carl D. Perkins Vocational Education Act of 1984.

The Perkins Act legislation assisted states in expanding, improving, modernizing and developing quality vocational-technical education programs in order to meet the needs of the nation's existing and future work force. The legislation also assisted states in assuring that individuals who were inadequately served under vocational-technical education programs, especially the disadvantaged and handicapped, and men and women who were entering non-traditional occupations and who were in need of training and retraining (P.L. 98-524, 1984).

Since 1968, three universities--the University of Michigan, Michigan State University and Ferris State University--received state and/or federal funds to develop and implement a Leadership Development Program for career-technical education administrators. The year-long LDP program utilized the 166 administrative competencies identified and nationally validated by the National Center for Vocational Education (Norton, et al., 1977) and later, it

used the 67 competencies determined as "absolutely needed" by first-year career-technical education administrators in Michigan (Moore & Ray, 1985). Successful completers of the Leadership Development Program were given a certificate and were eligible to be reimbursed as career-technical education administrators (Michigan Department of Education, 1982).

Similar studies have also appeared in the literature (Combrink, 1983; Meyer, 1970; Pope, 1974). These studies utilized the traditional occupational analysis approach to identify specific tasks (or competencies) important to success in vocational administrative positions. The lists of tasks (or competencies) were typically developed by observation and interview and then surveyed to determine the representativeness of the listed tasks (or competencies) in some population of vocational administrators.

The Administrative Guide for Vocational-Technical Education in Michigan (Michigan State Board of Education, 1989) states the qualifications for administrators of career-technical education as the following.

> Education: Secondary vocational-technical education administrators shall be graduates of an approved and accredited college or university with at least a Master's degree and shall have completed vocational education preparation in the administration, supervision and organization of vocational-technical education programs.
>
> Experience: Secondary vocational administrators shall have had a minimum of three years of experience in administration and/or teaching in vocational-technical education programs.

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> Other Conditions: If a candidate does not meet the above reference qualifications, an evaluation of competency will be made by the Michigan Department of Education based upon the combined education and experience of the individual.

The Michigan Department of Education, Career-Technical Education Service was also entrusted with the responsibility to "determine adequacy" of candidates who want to assume a state reimbursable vocational administrative position. The Administrative Rules Relating to Education, R 395.231, Rule 1.(3) states the following.

> Local administrators shall have the following qualifications:
>
> (a) They shall be graduates of a recognized college or university with a Master's degree and shall have completed vocational education courses in the administration, supervision and organization of vocational education programs. They shall hold or be eligible to hold a valid Michigan teachers' certificate.
>
> (b) They shall have had at least three years of experience in administration and/or teaching in vocational education programs. They shall have had at least two years of occupational experience, other than teaching or educational administration. In the case of trade and industry supervisors, they shall have had three years of occupational experience, other than teaching or educational administration.
>
> (c) Under certain circumstances, if a candidate does not fully qualify, a competency examination may be arranged. The State Board of Education, hereinafter referred to as the State Board, will determine the adequacy of his combined education and experience as equivalent to the requirements set forth in subdivisions (a) and (b) of this sub-rule.

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Rule 1.(3)(c) states that the purpose of a "competency examination" is to "determine the adequacy" of those applicants who do not meet the minimum criteria. Since the inception of Michigan's Leadership Development Program for career-technical education administrators, public funds have been expended for the development and validation of a "competency examination" for the eventual purpose of assisting decision makers to "determine the adequacy" of administrative applicants (Pratt, 1989).

In addition to becoming eligible for reimbursement as a career-technical administrator, Public Act 163, effective July 1, 1988, required administrators in Michigan public schools to attain certification as school administrators (Michigan Department of Education, 1988).

Future Challenges in Vocational-Technical Education

Although it is recognized that professional programs focusing on vocational-technical administrator preparation have accomplished a great deal, future challenges facing vocational-technical education dictate that administrator preparation processes be examined and refined (Finch, Gregson & Faulkner, 1989).

In the last ten years, there have been a number of educational initiatives that will affect the future leadership and delivery of vocational-technical education. Some of these initiatives have emerged into new legislation. The most recent federal legislation has been the new Carl D. Perkins Vocational and Applied Technology

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Act of 1990 (commonly called Perkins II). This Act addresses the present crisis.

> To make the United States more competitive in the world economy by developing more fully the academic and occupational skills of all segments of the population. This purpose will principally be achieved through concentrating resources on improving educational programs leading to academic, occupational, training and retraining skill competencies needed to work in a technologically advanced society. (P.L. 101-392)

The re-authorized Perkins Act enables Congress to spend up to 1.6 billion dollars a year on state and local programs that teach the skill competencies necessary to work in a technologically advanced society.

In the Michigan Council on Vocational Education's Working Paper (1992), entitled "Creating a Seamless Web for Educational Reform by Reducing the Confusion and Strengthening the Linkages Among Educational Initiatives," it describes the new law differences from the original Carl D. Perkins Vocational Act of 1984 as the following.

1. Emphasizing the integration of academic and vocational education. The shift in the new law is away from the specific job-skills orientation of vocational education to a broader purpose of using vocational education as a method for developing more fully academic and occupational skills.

2. Including leadership and instruction programs in technology education for the first time. The law defines technology education as an applied discipline designed to promote technological literacy which provides knowledge and understanding of the impacts of technology, including its organizations, techniques, tools and

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skills to solve practical problems and extend human capabilities in areas such as construction, manufacturing, communication, transportation, power and energy.

3. Providing greater opportunities for vocational education to disadvantaged individuals. Under the new law, states are required to spend the bulk of their basic state grants on schools serving the greatest number of poor and handicapped students and those with limited English-language proficiency.

4. Requiring states to be more accountable for their vocational programs. In addition to demonstrating that disadvantaged individuals have opportunities to participate fully and equitably in vocational education programs, states must also set systems for evaluating programs including the development of performance measures and standards.

5. Establishing a separate title within the legislation for a "Tech Prep Education Program." This new legislation defines the term as: 1) A combined secondary and post-secondary program that leads to an associate degree or a two-year certificate; 2) A program providing technical preparation in at least one field of engineering technology, applied science, mechanical, industrial, or practical art or trade, or agriculture, health, or business; 3) A program that builds student competence in mathematics, science, and communications (including applied academics) through a sequential course of study; and 4) A program that leads to placement in employment.

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6. Encouraging local districts to provide greater leadership in reforming and improving vocational education. Where previously only a state plan had been required, the new law expects local districts to develop their own plans for using federal Perkins II funds.

In comparison, some state legislation will have an impact on Perkins II. In Michigan, for example, Public Act 25 of 1990 was passed to raise the standards and improve the quality of education for each student. Its promise to revitalize education in Michigan is contained in six major changes to the School Code:

1. Expands the technical assistance role of the state's 57 intermediate school districts to provide school improvement support services addressed in P.A. 25.

2. Requires local districts to prepare an annual educational report for each school in the district and make it available to the public at an open meeting and to the State Board of Education.

3. Allows school districts to hire non-certified individuals to teach computer science, foreign language, mathematics, biology, chemistry, engineering, physics or robotics in grades 9 through 12 under certain conditions.

4. Requires districts to adopt and implement a three-to-five year school improvement plan for each school within the district.

5. Requires districts to establish a core curriculum based on the district mission statement and goals and objectives and make it available to all students in the district.

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6. Requires that each school within a school district be accredited.

The Michigan Model Core Curriculum Outcomes were developed and disseminated by the State Board of Education in 1990-91. Educational outcomes were defined in the following areas: World Studies, Technology, Physical Education and Health, Mathematics and Science, Life Management, Language Arts, Cultural and Aesthetic Awareness, Career and Employability, and the Arts.

The link between Perkins II and P.A. 25 is in the areas of school improvement and the core curriculum.

Another educational initiative that appears today to have evolved out of the Career Education Reform Movement, in the 1970s, is the concept of Employability Development Plans (Michigan State Board of Education, 1975). According to a document developed by the Michigan Association of Career Education, an Employability Development Plan (EDP) is a formalized plan which a student uses to identify a potential career and includes making choices on classes and learning or work experiences to enable his/her to reach a desired career goal. The Guide to Implementation for Employment Development Plans assists local districts in designing, administering and implementing their own EDPs. It expands upon the State Board of Education's document Core Components of the Employability Development Plan (1983).

Expanding upon the use of EDPs, it appears that a requirement has been added to the Michigan State Aid Bill for a student portfolio. Section 104 of the Michigan State Aid Act requires that

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all school districts develop a plan during 1992 to provide and maintain a student portfolio for each student who begins high school in the fall of 1992. The portfolio, which may be reviewed by the student's parents, guardian or person in local parentis, shall be given to each student upon or before graduation or upon leaving the district, and shall have at least four major chapters or sections containing: a record of the student's annual academic and non-academic plans; a record of academic achievement, including results from state-wide subject matter assessment tests and nationally or locally normed achievement tests; a record of career preparation; and a record of recognitions and accomplishments (Jonker, 1992).

Still another educational initiative that has developed a renewed interest is the concept of school-to-work transition. In 1989, the U. S. Department of Labor created the Office of Work-Based Learning to sponsor demonstrations of training models based on apprenticeship. The report entitled "Work-Based Learning: Training America's Workers" culminated a two year effort to determine the role the apprenticeship concept should play in meeting America's need for a skilled workforce. It includes a recommendation to "develop work-based learning alternatives for non-college-bound youth to assist them in effectively making the transition from school to a meaningful career path."

According to Finch, Gregson and Faulkner (1989), "the vocational education administrator preparation process must be examined if professionals intend to be prepared for the next decade

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and beyond. The process should begin with determining what constitutes successful administration and extend to the development of innovative instructional sequences that will help prepare future-oriented leaders."

Summary

In this review of literature, the researcher discussed the factors affecting the preparation and continuing professional development of school administrators. Considerable attention was given to the development of vocational-technical education administrators and future challenges faced by vocational-technical education. The review included a discussion of Public Act 163, requiring the certification of school administrators and the qualifications needed to become state-reimbursed as a vocational-technical education administrator.

CHAPTER III

RESEARCH DESIGN AND PROCEDURE

This study was designed as descriptive research. Borg and Gall (1983) defined the purpose of descriptive research as to "characterize a sample . . . on one or more categories." In this study, the researcher focused on the identification of roles/functions of career-technical education (CTE) administrators and their perceived needs for further preparation and continuing professional development.

The following research questions were addressed in this study:

1. What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

2. What differences exist among career-technical education administrators regarding their perceptions about roles/functions, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

3. What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

4. What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

The design of the study consisted of five phases. The first phase was to conduct a review of literature to identify primary role descriptors for CTE administrators. The second phase was the development of the survey instrument. In the third phase, a pilot study of the survey questionnaire was conducted to test the instrument itself. The fourth phase consisted of identifying and implementing a data collection procedure; and in the fifth phase, data from the survey instruments were analyzed statistically.

Phase 1: Identification of Role Descriptors for CTE Administrators

The first phase of the study was to identify primary role descriptors for CTE administrators. A review of literature suggested that the roles of general education administrators and CTE administrators were more similar than different. Further review of administrators' job descriptions revealed some differences in expectations for general education and CTE administrators. These differences related to educational setting, span of control, complexity of curriculum and community expectations.

In identifying the role descriptors to be included in the survey instrument, the researcher reviewed the literature on school

effectiveness, educational trends and legislation, administrator preparation, leadership development, roles and responsibilities of administrators and professional development needs of administrators. The researcher reviewed several studies related to the administration of CTE programs. These included the study conducted by the National Center for Vocational Education (Norton, et al., 1977) which identified and nationally validated 166 administrative competencies; and later a study, conducted by Moore and Ray (1985), that identified 67 competencies which were "absolutely needed" by first-year CTE administrators. The role descriptors were then placed into nine major categories developed initially by the National Center for Vocational Education. The major categories were: Program Planning, Development and Evaluation; Instructional Management; Student Services; Personnel Management; Staff Development; Professional Relations and Self-Development; School-Community Relations; Facilities and Equipment Management; and Business and Financial Management. Similar studies have also appeared in the literature (Combrink, 1983; Meyer, 1970; Pope, 1974). These studies utilized the traditional occupational analysis approach to identify specific tasks (or competencies) important to success in vocational administrative positions.

In addition, the researcher reviewed publications of the American Vocational Association, the National Center for Vocational Education, the Michigan Department of Education, the American Association of School Administrators and the National Association of

Secondary School Principals related to initial administrator preparation and continuing professional development.

Phase 2: Development of the Survey Instrument

The second phase consisted of two steps. In the first step, the role descriptors listed under the nine major categories, resulting from the study conducted by the National Center for Vocational Education (Norton, et al., 1977), and the role descriptors identified from the review of literature were used to construct the initial survey instrument.

The initial survey questionnaire consisted of 200 items. The survey included 185 items which listed various role descriptors associated with the administration of CTE programs. For each role descriptor, respondents were asked to indicate (a) how important the role/function was to their role as a CTE administrator, and (b) their personal need for further preparation and continuing professional development in order to be effective as they would like to be in each of the roles/functions listed.

The survey questionnaire also included 15 items that provided demographic information about each respondent, such as gender, age, highest degree held, focus of undergraduate and graduate programs, years of experience as a CTE administrator, type and description of educational setting where employed, percentage of time administering CTE programs, type of administrative certification needed for position and the likelihood of retiring or leaving CTE within the next five years.

In the second step, the researcher asked a panel of experts, identified by colleagues of the researcher, to screen the initial survey instrument for item duplication and item relatedness to a specific category. In a discussion meeting, a few items were added and many items were deleted due to lack of clarity or duplication. The major categories were then reviewed and role descriptors were then screened for item relatedness to a specific category. This process produced a list of 99 role descriptors related to the administration of CTE programs and 13 demographic questions, for a total of 112 items. The major categories of Program Planning, Development and Evaluation; Instructional Management; Student Services; Personnel Management; Staff Development; Professional Relations and Self-Development; School-Community Relations; Facilities and Equipment Management; and Business and Financial Management were retained.

Phase 3: Pilot Study of the Survey Instrument

In the third phase, the researcher utilized the expertise of eight practicing CTE administrators, which were representative of the sample population, to pilot test the survey instrument. Four of the administrators were from local educational agencies, both urban and rural; two individuals represented area career-technical education centers; and two were employed by an intermediate school district. In conducting the pilot study, the researcher was seeking to determine whether the survey directions were clear, to discover approximately how long the survey took to complete, and to determine

clarity of the role descriptors. Data collected from the pilot testing were not used in the data analysis for the study.

The administrators who participated in the pilot stated that the survey directions were very clear. Minor revisions were made to the role descriptors for clarity and a suggestion was made on the layout of the questionnaire for ease of completion. Pilot respondents reported that they were able to complete the survey in approximately 40-45 minutes. A copy of the survey instrument used in this study is provided in Appendix A.

Phase 4: Data Collection Procedure and Sample Selection

The fourth phase of the study was to ask Michigan secondary CTE administrators, employed during the 1990-91 school year, to complete the survey questionnaire. The data collection followed a two-step procedure. Step one involved mailing an explanatory cover letter and survey instrument to the population of secondary CTE administrators. This initial mailing included a stamped, return-addressed envelope for the survey. It also included a numbered postcard that was return-addressed and stamped. The number on the postcard corresponded to a number that was given to each respondent. Respondents were asked to mail the completed survey instrument and numbered postcard separately. This procedure was followed so as to identify those who have returned the survey instrument and to avoid duplication in a follow-up mailing.

Step two of the procedure involved sending a follow-up letter to those persons who had not returned the survey instrument within

two weeks. The data collection procedures were completed in about six weeks. Copies of the initial explanatory letter, numbered postcard and follow-up letter are included in Appendices B and C.

The population for this study consisted of 224 secondary CTE administrators identified in the 1990-91 Michigan Directory of Vocational Education Contact Persons. The directory was published by the Michigan Department of Education, Career-Technical Education Service, P.O. Box 30009, Lansing, Michigan 48909. Educational leaders at this level include those professionals who administer programs of career-technical education, i. e., Directors of Career-Technical Education, Shared-Time Directors of Career-Technical Education, Regional Career-Technical Education Administrators and Principals of Area Career-Technical Education Centers.

Phase 5: Data Analysis

In analyzing the data, the researcher proceeded in two main steps. In step one, the population, as a whole, was described in terms of gender, age, highest degree held, focus of undergraduate and graduate programs, years of experience as a CTE administrator, type and description of educational setting where employed, percentage of time administering CTE programs, type of administrative certification needed for position and the likelihood of retiring or leaving CTE in the next five years.

Then, the CTE administrators' overall perceptions of the importance of their roles/functions and needs for further

professional development were described within nine major categories and further described as specific items within each category. The nine major categories were: 1) Program Planning, Development and Evaluation; 2) Instructional Management; 3) Student Services; 4) Personnel Management; 5) Staff Development; 6) Professional Relations and Self-Development; 7) School-Community Relations; 8) Facilities and Equipment Management; and 9) Business and Financial Management.

To determine the level of importance, a five-point scale was used with "1" being "Very Important," "2" being "Moderately Important," "3" being of "Little Importance," "4" being "Not Important," and "5" being "Not Part of Job/Never Do It." The mean scores for each major category, and individual items within each category were then rank ordered to determine the roles/functions that were perceived to be of most importance.

A second five-point scale was used to determine the perceived need for further preparation and continuing professional development for each role descriptor. Respondents indicated a "1" for "High Need," a "3" for "Moderate Need," or a "5" for "No Need." The mean scores for each major category, and individual items within each category were then rank ordered to determine the roles/functions that were perceived to be most needed for further preparation and professional development.

A major category or individual role descriptor was judged important or a priority need if it received an average rating of less than a 2.50. To determine the range of importance of a given

category, or role/function, and its perceived training needs, the following scale was used:

1.00 - 2.50	Very Important/High Need
2.51 - 3.50	Little Importance/Moderate Need
3.51+	Not Important/No Need

In the second step, the perceived importance of the roles/functions and their training needs of the sample were compared among various categories of independent variables: educational background, tenure in position and educational setting. To test if there were any differences among groups of CTE administrators, a one-way analysis of variance was performed. A Chi Square Analysis was used to identify the significant roles/functions within each major category.

Summary

The chapter included information on the design of the study. There were five phases. The first phase was to conduct a review of literature to identify primary role descriptors for CTE administrators.

In the second phase, the researcher developed an initial survey instrument with 200 questions, including 185 items which listed various role descriptors associated with the administration of CTE programs and 15 questions that provided demographic information about each respondent. The role descriptors were organized under the major categories of Program Planning, Development and Evaluation; Instructional Management; Student Services; Personnel

Management; Staff Development; Professional Relations and Self-Development; School-Community Relations; Facilities and Equipment Management; and Business and Financial Management.

The initial survey instrument was reviewed by a panel of experts and later revised to include 112 questions. There were 99 items related to the administration of CTE programs and 13 questions which provided demographic information about the respondents.

In phase three, the survey instrument was field tested by a panel of eight practicing administrators for clarity and minor revisions were made. The survey instrument was disseminated in phase four and a data collection procedure was implemented. In phase five, the Statistical Package for the Social Sciences (SPSS) program was used to analyze the data collected in phase four.

The results from the statistical analysis and a demographic description of the respondents are presented in Chapter IV.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

Presented in this chapter are the analysis and interpretation of the data gathered from the responses of 148 Michigan secondary career-technical education (CTE) administrators to the survey instrument that was developed for the study.

The survey instrument included 13 items that described the sample population and 99 items that described various roles/functions associated with the administration of CTE programs. It assessed the range of importance of the roles/functions in CTE administrative positions and identified the perceived needs for further preparation and continuing professional development.

The following research questions were addressed in this study:

1. What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

2. What differences exist among career-technical education administrators regarding their perceptions about roles/functions, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

3. What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

4. What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

Characteristics of the Survey Sample

Two hundred twenty-four secondary career-technical education (CTE) administrators were sent the survey instrument in November, 1991. Of that number, 148 returned surveys for a response rate of 66%.

In Tables 4.1 through 4.5, the sample of secondary CTE administrators is described in terms of gender, age, highest degree held, focus of undergraduate and graduate programs, years of experience as a CTE administrator, type and description of educational setting where employed, percentage of time administering CTE programs, type of administrative certification needed for position and the likelihood of retiring or leaving career-technical education in the next five years.

As shown in Table 4.1, 75.7% (112) of the respondents were males and 24.3% (36) were females. The majority of the respondents, 50.7% (75) identified themselves in the range of 41-50 years of age.

Fifty-eight of the respondents (39.2%) were 51 years of age or older, and 15 respondents (10.1%) were less than 41 years of age. It should be noted that there were no respondents who reported they were 30 years of age or younger. Seventy-four, or 50%, of the respondents reported that they had administered career-technical education (CTE) programs for 10 years or less and the same number said 11 or more years. The largest number of administrators (40) served five years or less in career-technical education.

Table 4.1

Distribution of Participants by Gender, Age Group and Years as a CTE Administrator

	Sample	
	N	%
Gender		
Male	112	75.7
Female	36	24.3
Totals	148	100.0
Age Group		
< 30 years old	0	0.0
31 - 40	15	10.1
41 - 50	75	50.7
51 - 55	33	22.3
over 55	25	16.9
Totals	148	100.0
Years as a CTE Administrator		
< 5 years	40	27.0
6 - 10	34	23.0
11 - 15	23	15.5
16 - 20	24	16.2
over 20	27	18.2
Totals	148	99.9*

*Due to rounding

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Sixty-seven of the respondents (45.3%) indicated that they worked in a local education agency, 37 (25.0%) said they worked in an area career-technical center, and 39 (26.4%) said they worked in an intermediate school district. An additional five respondents (3.4%) reported that they worked in some other type of educational setting (see Table 4.2).

When asked the location of the educational setting where they were employed, 27.7% (41) of the respondents said they were employed in a rural-suburban area, 23.6% (35) in a rural area, and 20.9% (31) in a suburban area. An additional 27 of the respondents (18.2%) reported they worked in a suburban-urban area, and another 14 (9.5%) of them said they worked in an urban area.

Twenty-two of the respondents (14.9%) said that less than 250 students were enrolled in career-technical education programs, 31 (20.9%) of them reported between 251 and 500 students, 36 (24.3%) reported between 501 and 750, and 22 (14.9%) of them said between 751 and 1000 students. An additional 36 respondents (24.3%) reported 1000 or more students in career-technical education.

When asked how much time was spent administering career-technical education (CTE) programs, half of the respondents, 50.0% (74) indicated 100% of their time, 12.8% (19) said 75%, 16.2% (24) said 50%, and 8.8% (13) said 25%. Eighteen of the respondents (12.2%) said that they spent less than 25% of their time administering CTE programs (see Table 4.3).

Over half of the respondents, 54.1% (80) said that their positions required central office certification and 31.1% (46) of

Table 4.2

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Table 4.2

Distribution of Participants by Educational Setting Where Employed, Location of Educational Setting and Student Enrollment Range

	Sample	
	N	%
Educational Setting		
Local Education Agency	67	45.3
Area Career-Technical Center	37	25.0
Intermediate School District	39	26.4
Other	5	3.4
Totals	148	100.1*
Location of Educational Setting		
Rural	35	23.6
Rural-Suburban	41	27.7
Suburban	31	20.9
Suburban-Urban	27	18.2
Urban	14	9.5
Totals	148	99.9*
Student Enrollment Range		
< 250 students	22	14.9
251 - 500	31	20.9
501 - 750	36	24.3
751 - 1000	22	14.9
over 1000	36	24.3
Missing Cases	1	0.7
Totals	148	100.0

*Due to rounding

them said only secondary administrator certification. No certification was needed for positions held by 14.9% (22) of the respondents.

Only two of the respondents (1.4%) held a baccalaureate degree, with most of the respondents (107) having a Masters degree (33.1%) or a Masters Degree plus 30 graduate hours (39.2%). An additional 39 respondents (26.3%) held further advanced degrees (see Table 4.4).

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Table 4.3

Distribution of Participants by Length of Time Administering CTE Programs and Type of Administrative Certification Required for Position

	Sample	
	N	%
Length of Time		
100%	74	50.0
75%	19	12.8
50%	24	16.2
25%	13	8.8
< 25% of time	18	12.2
Totals	148	100.0
Type of Certification		
Secondary Administrator	46	31.1
Central Office Administrator	80	54.1
None	22	14.9
Totals	148	100.1*

*Due to rounding

Fifty-two percent (77) of the respondents had an undergraduate program focus in career-technical education, with 30.4% (45) of them reporting general education, and another 2% (3) reporting special education. An additional 23 respondents (15.5%) said that they had an undergraduate program focus in some other area.

When compared to their graduate program focus, a similar comparison appears. A majority of the respondents (53.4%) reported career-technical education, and 31.8% (47) said general education. An additional nine respondents (6.1%) indicated guidance and counseling, and another 13 (8.8%) reported a graduate program focus in other areas.

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Table 4.4

Distribution of Participants by Highest Degree Held, Undergraduate Degree Focus and Graduate Program Focus

	Sample	
	N	%
Highest Degree Held		
Baccalaureate Degree	2	1.4
Masters	49	33.1
Masters + 30 hours	58	39.2
Educational Specialist	24	16.2
Doctorate	15	10.1
Totals	148	100.0
Undergraduate Program Focus		
General Education	45	30.4
Career-Technical Education	77	52.0
Special Education	3	2.0
Other	23	15.5
Totals	148	99.9*
Graduate Program Focus		
General Education	47	31.8
Career-Technical Education	79	53.4
Guidance and Counseling	9	6.1
Other	13	8.8
Totals	148	100.1*

*Due to rounding

As shown in Table 4.5, almost half of the respondents (49.3%) indicated that they would not likely retire or leave career-technical education (CTE) in the next five years. The remaining respondents indicated very likely (26.4%) or possibly (24.3%).

Of the 75 respondents (50.7%) who said they may leave career-technical education, 12 (16.0%) of them indicated the year 1996 and 11 (14.7%) indicated 1992. The remaining 21 respondents (28.0%) indicated years between 1992 and 1996.

Table 4.5

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Table 4.5

Distribution of Participants by Likelihood of Leaving CTE in the Next Five Years and the Year

	Sample	
	N	%
Likelihood of Leaving CTE		
Very Likely	39	26.4
Possibly	36	24.3
Not Likely	73	49.3
Totals	148	100.0
Year		
1992	11	14.7
1993	9	12.0
1994	5	6.7
1995	7	9.3
1996	12	16.0
Missing Cases	31	41.3
Totals	75	100.0

Results from the Research Questions

Four research questions were formulated to serve the purpose of the study. In the following pages, each research question is restated, followed by a report of the data pertaining to that question.

Research Question 1

> What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

The career-technical education (CTE) administrators' perceptions of the importance of the roles/functions are shown in Tables 4.6 through 4.15.

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The various roles/functions associated with the administration of CTE have been organized into the following nine major categories: 1) Program Planning, Development and Evaluation; 2) Instructional Management; 3) Student Services; 4) Personnel Management; 5) Staff Development; 6) Professional Relations and Self-Development; 7) School-Community Relations; 8) Facilities and Equipment Management; and 9) Business and Financial Management.

Within each major category, the CTE administrators' perceptions of the various roles/functions ranged in importance from "Very Important" (1 on the scale) to "Not Part of Job/Never Do It" (5 on the scale). A given category was considered "Very Important" if it had a mean score between 1.00 and 2.50, of "Little Importance" if mean scores were between 2.51 and 3.50, and "Not Important" if mean scores were higher than a 3.50.

As shown in Table 4.6, Professional Relations and Self-Development, with a mean score of 1.81, was identified as the most important category; followed by Program Planning, Development and Evaluation, with a mean score of 1.90; and Staff Development, with a mean score of 1.95. Based on the criteria identified by the researcher, all nine categories were perceived to be "Very Important" by CTE administrators.

In the category of Program Planning, Development and Evaluation, the most important individual role as perceived by career-technical education administrators was Item 3, Direct course/program planning and development efforts, with a mean score of 1.38 (see Table 4.7). It was followed by Item 12, Recommend

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Table 4.6

CTE Administrators' Perceptions of the Importance of Roles/Functions by Major Categories

Major Categories	N	X	SD	Rank
Program Planning, Development and Evaluation (15 items)	148	1.90*	0.62	2
Instructional Management (17 items)	148	2.46*	0.74	9
Student Services (6 items)	148	2.39*	1.05	7
Personnel Management (13 items)	148	2.29*	0.94	6
Staff Development (5 items)	148	1.95*	0.97	3
Professional Relations and Self-Development (11 items)	148	1.81*	0.68	1
School-Community Relations (10 items)	148	2.00*	0.77	4
Facilities and Equipment Management (12 items)	148	2.40*	1.02	8
Business and Financial Management (10 items)	148	2.05*	0.80	5

*Met criteria for "Very Important" category

curriculum revisions, with a mean score of 1.59; and Item 7, Comply with state and/or federal vocational education legislation, with a mean score of 1.60.

Item 15, Develop supplemental/remedial instructional programs to meet student needs was viewed as the least important role. It had a mean score of 2.41. The next role of least importance was Item 8, Comply with other job training legislation (such as JTPA), with a mean score of 2.29. Item 14, Contract instructional programs

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with business and industry followed with a mean score of 2.24. Based on the criteria identified by the researcher, all items in this category were perceived to be important by CTE administrators.

Table 4.7

CTE Administrators' Perceptions of the Importance of Program Planning, Development and Evaluation

Item Content	N	X	SD	Rank
1. Survey student interests	148	1.87*	0.99	9
2. Analyze labor demand data	148	1.82*	1.07	6
3. Direct course/program planning and development efforts	147	1.38*	0.81	1
4. Implement strategies to promote non-traditional student enrollment	148	2.08*	0.85	12
5. Prepare an annual plan for delivering vocational-technical education	148	1.79*	1.03	4
6. Prepare a 3-5 year plan for overall program improvement	147	1.79*	0.97	4
7. Comply with state and/or federal vocational education legislation	148	1.60*	0.91	3
8. Comply with other job training legislation (such as JTPA)	148	2.29*	1.07	14
9. Conduct course/program reviews	148	1.84*	0.87	8
10. Conduct student follow-up studies	148	1.96*	1.18	10
11. Assess student competency and grading procedures	148	2.00*	1.14	11

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Table 4.7, continued

12.	Recommend curriculum revisions	148	1.59*	0.91	2
13.	Write proposals for the funding of new programs and the improvement of existing programs	147	1.83*	1.11	7
14.	Contract instructional programs with business and industry	148	2.24*	1.34	13
15.	Develop supplemental remedial instructional programs to meet student needs	148	2.41*	1.28	15

*Met criteria for "Very Important" item

For the category of Instructional Management, the individual role with the highest ranking of importance, as perceived by career-technical administrators, was Item 23, Guide staff in integrating and articulating the vocational-technical education program with the total educational program, with a mean score of 1.55 (see Table 4.8). It was followed by Item 30, Guide the articulation of secondary and post-secondary vocational-technical education programs, with a mean score of 1.74; and Item 21, Guide staff in selecting and using effective instructional strategies, with a mean score of 1.83.

The least important role in this category was Item 29, Direct the adult and continuing education program, with a mean score of 3.43. The second least important role was Item 18, Provide student discipline, with a mean score of 3.19; followed by Item 19, Prepare a student handbook, with a mean score of 2.99. Based on the

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criteria identified by the researcher, ten out of 17 items were perceived to be "Very Important" by CTE administrators.

Table 4.8

CTE Administrators' Perceptions of the Importance of Instructional Management

Item Content	N	X	SD	Rank
16. Establish instructional program entry and completion requirements	145	2.35*	1.14	7
17. Establish student rules and policies	148	2.83	1.41	13
18. Provide student discipline	148	3.19	1.50	16
19. Prepare a student handbook	147	2.99	1.49	15
20. Prepare a master schedule of course/program offerings	148	2.96	1.55	14
21. Guide staff in selecting and using effective instructional strategies	148	1.83*	1.06	3
22. Direct the cooperative education program	148	2.47*	1.42	10
23. Guide staff in integrating and articulating the vocational-technical program with the total educational program	147	1.55*	1.06	1
24. Promote the integration of vocational student organizational activities within the instructional program	147	2.45*	1.31	8
25. Direct the apprenticeship and training program	147	2.68	1.50	11

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Table 4.8, continued

26. Provide technical assistance in the development of programs for the special populations	147	2.21*	1.18	6
27. Provide technical assistance in the development of customized training programs for business and industry	147	2.75	1.52	12
28. Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination	147	2.46*	1.17	9
29. Direct the adult and continuing education program	147	3.43	1.56	17
30. Guide the articulation of secondary and post-secondary vocational-technical education programs	147	1.74*	1.05	2
31. Approve selection of instructional equipment	147	1.86*	1.10	4
32. Approve selection of instructional supplies and materials	147	2.10*	1.28	5

*Met criteria for "Very Important" item

As shown in Table 4.9, the most important individual role, in the category of Student Services, was Item 33, Design student recruitment materials, with a mean score of 1.97. This was followed by Item 37, Comply with student labor laws and regulations, with a mean score of 2.12; and Item 35, Oversee student job placement services, with a mean score of 2.44. The least important individual role was Item 38, Conduct student orientation activities, with a mean score of 2.65. Three out of six items were perceived to be "Very Important" by CTE administrators.

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Table 4.9

CTE Administrators' Perceptions of the Importance of Student Services

Item Content	N	X	SD	Rank
33. Develop student recruitment materials	147	1.97*	1.15	1
34. Oversee vocational guidance and testing services	147	2.62	1.37	5
35. Oversee student job placement services	147	2.44*	1.38	3
36. Provide for a student record-keeping system	147	2.51	1.46	4
37. Comply with student labor laws and regulations	147	2.12*	1.37	2
38. Conduct student orientation activities	147	2.65	1.40	6

*Met criteria for "Very Important" item

For the category of Personnel Management, the most important individual role identified by career-technical education administrators was Item 44, Interview potential staff, with a mean score of 1.68 (see Table 4.10). This was followed by Item 48, Comply with licensing and certification requirements, with a mean score of 1.80; and Item 50, Evaluate staff performance, with a mean score of 1.85.

The least important individual role was Item 40, Negotiate labor contracts, with a mean score of 3.32. The next least important role was Item 43, Prepare a personnel handbook, with a mean score of 3.10; followed by Item 46, Provide for a staff

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record-keeping system, with a mean score of 2.85. Based on the criteria identified by the researcher, nine out of 17 items were perceived to be "Very Important" by CTE administrators.

Table 4.10

CTE Administrators' Perceptions of the Importance of Personnel Management

Item Content	N	X	SD	Rank
39. Interpret labor contracts	147	2.53	1.53	10
40. Negotiate labor contracts	147	3.32	1.53	13
41. Assess program staffing requirements	147	2.04*	1.28	6
42. Prepare job descriptions and requirements	147	2.07*	1.24	7
43. Prepare a personnel handbook	148	3.10	1.53	12
44. Interview potential staff	148	1.68*	1.18	1
45. Schedule staff work loads	147	2.49*	1.47	9
46. Provide for a staff record-keeping system	148	2.85	1.53	11
47. Conduct staff meetings	148	1.87*	1.23	4
48. Comply with licensing and certification requirements	148	1.80*	1.18	2
49. Prepare bulletins and other communications to keep staff informed	148	1.97*	1.14	5
50. Evaluate staff performance	148	1.85*	1.41	3
51. Conduct staff orientation activities	148	2.18*	1.40	8

*Met criteria for "Very Important" item

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As shown in Table 4.11, the most important individual role, in the category of Staff Development, was Item 54, Arrange for workshops and inservice programs, with a mean score of 1.75. It was followed by Item 52, Assess staff development needs, with a mean score of 1.79; and Item 55, Arrange for staff exchanges with business and industry, with a mean score of 2.04. The least important individual role was Item 56, Evaluate staff development programs, with a mean score of 2.12. Based on the criteria identified by the researcher, all of the items in this category were perceived to be "Very Important" by CTE administrators.

For the category of Professional Relations and Self-Development, the individual role with the highest ranking was Item 62, Model professional image through personal appearance and

Table 4.11

CTE Administrators' Perceptions of the Importance of Staff Development

Item Content	N	X	SD	Rank
52. Assess staff development needs	148	1.79*	1.12	2
53. Conduct workshops and other inservice programs	148	2.07*	1.32	4
54. Arrange for workshops and inservice programs	148	1.75*	1.15	1
55. Arrange for staff exchanges with business and industry	148	2.04*	1.22	3
56. Evaluate staff development programs	148	2.12*	1.28	5

*Met criteria for "Very Important" item

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conduct, with a mean score of 1.50 (see Table 4.12). It was followed by Item 66, Develop cooperative problem solving and decision-making skills, with a mean score of 1.57; and Item 67, Assess personal performance as an administrator, with a mean score of 1.60.

The least important role, as perceived by career-technical education administrators was Item 58, Prepare testimony for public hearings, with a mean score of 2.70. The next least important roles were Item 63, Participate in the development of legislative rules and regulations for vocational-technical education, with a mean score of 2.11; and Item 60, Participate in professional organizations other than vocational-technical education, with a mean score of 1.95. Based on the criteria identified by the researcher, ten out of 11 items were perceived to be "Very Important" by CTE administrators.

Table 4.12

CTE Administrators' Perceptions of the Importance of Professional Relations and Self-Development

Item Content	N	X	SD	Rank
57. Develop effective interpersonal skills	148	1.62*	0.99	4
58. Prepare testimony for public hearings	148	2.70	1.24	11
59. Participate in professional organizations related to vocational-technical education	148	1.71*	0.94	7

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Table 4.12, continued

60. Participate in professional organizations other than vocational-technical education	148	1.95*	0.99	9
61. Participate in professional development activities for self-improvement	148	1.64*	0.91	5
62. Model professional image through personal appearance and conduct	148	1.50*	0.97	1
63. Participate in the development of legislative rules and regulations for vocational-technical education	148	2.11*	1.18	10
64. Apply information from professional journals, reports and related materials for self-improvement	148	1.82*	0.89	8
65. Apply time management techniques to personal work assignments	148	1.66*	0.95	6
66. Develop cooperative problem solving and decision-making skills	148	1.57*	0.91	2
67. Assess personal performance as an administrator	148	1.60*	0.98	3

*Met criteria for "Very Important" item

As shown is Table 4.13, the most important individual role, in the category of School-Community Relations, was Item 74, Make informational presentations to the public, with a mean score of 1.74. It was followed by Item 70, Participate in community activities, with a mean score of 1.79; and Item 72, Involve

community leaders (political and non-political) in school programs and activities, with a mean score of 1.82.

The least important individual role in this category was Item 75, Plan for exhibits and displays, with a mean score of 2.31. The next least important roles were Item 77, Conduct open house activities, with a mean score of 2.24; and Item 71, Coordinate vocational-technical education programs with other community job training programs (such as JTPA), with a mean score of 2.19. Based on the criteria identified by the researcher, all of the items were perceived to be "Very Important" by CTE administrators.

For the category of Facilities and Equipment Management, the individual role with the highest ranking was Item 85, Comply with health and safety laws and regulations, with a mean score of 1.85 (see Table 4.14). It was followed by Item 84, Establish a long-range plan for acquisition of new equipment, with a mean score of 1.92; and Item 78, Plan space requirements for programs, with a mean score of 2.07.

The individual role, which was perceived as being the least important, was Item 88, Schedule facility use by community members, with a mean score of 3.26. Based on the criteria identified by the researcher, eight out of 12 items were perceived to be "Very Important" by CTE administrators.

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Table 4.13

CTE Administrators' Perceptions of the Importance of School-Community Relations

Item Content	N	X	SD	Rank
68. Develop a marketing plan for promoting vocational-technical education	148	1.93*	1.12	5
69. Provide technical assistance in the establishment of advisory committees	148	1.85*	1.01	4
70. Participate in community activities	148	1.79*	1.03	2
71. Coordinate vocational-technical education programs with other community job training programs (such as JTPA)	148	2.19*	1.19	8
72. Involve community leaders (political and non-political) in school programs and activities	148	1.82*	1.05	3
73. Conduct recognition programs for students, staff and community supporters	148	1.94*	1.06	6
74. Make informational presentations to the public	148	1.74*	0.96	1
75. Plan for exhibits and displays	148	2.31*	1.14	10
76. Write news releases for school area media	148	2.15*	1.10	7
77. Conduct open house activities	148	2.24*	1.31	9

*Met criteria for "Very Important" item

Table 4.14

CTE Administrators' Perceptions of the Importance of Facilities and Equipment Management

Item Content	N	X	SD	Rank
78. Plan space requirements for programs	148	2.07*	1.27	3
79. Submit building and equipment specifications	148	2.30*	1.44	7
80. Analyze building and contract bids	148	2.68	1.50	9
81. Oversee architectural planning	148	2.85	1.57	11
82. Develop a plan for repair and maintenance of equipment and facilities	147	2.25*	1.36	5
83. Maintain an equipment and supply inventory system	148	2.22*	1.34	4
84. Establish a long-range plan for acquisition of new equipment	148	1.92*	1.18	2
85. Comply with health and safety laws and regulations	148	1.85*	1.19	1
86. Direct a safety awareness program	148	2.29*	1.39	6
87. Establish emergency plans (such as fire and disaster)	148	2.74	1.65	10
88. Schedule facility use by community members	148	3.26	1.63	12
89. Prepare renovation and alternation plans	148	2.39*	1.38	8

*Met criteria for "Very Important" item

The most important role in the category of Business and Financial Management was Item 93, Administer budgets, with a mean score of 1.43 (see Table 4.15). It was followed by Item 92, Prepare

budgets, with a mean score of 1.44; and Item 99, Prepare local, state and federal reports, with a mean score of 1.64. Of least importance was Item 91, Establish receiving and shipping procedures, with a mean score of 3.19. Based on the criteria identified by the researcher, seven out of 10 items were perceived to be "Very Important" by CTE administrators.

Table 4.15

CTE Administrators' Perceptions of the Importance of Business and Financial Management

Item Content	N	X	SD	Rank
90. Establish purchasing and payment procedures	148	2.77	1.61	9
91. Establish receiving and shipping procedures	147	3.19	1.55	10
92. Prepare budgets	148	1.44*	0.91	2
93. Administer budgets	148	1.43*	0.93	1
94. Adopt an appropriate financial accounting system	147	2.63	1.60	8
95. Analyze the cost of operating various instructional programs	148	1.91*	1.18	6
96. Locate sources of funds for program development and operation	148	1.76*	1.18	4
97. Approve requisitions and work orders	148	1.97*	1.37	7
98. Respond to business correspondence	148	1.78*	1.01	5
99. Prepare local, state and federal reports	148	1.64*	1.15	3

*Met criteria for "Very Important" item

A complete ranked order listing of important roles/functions as perceived by CTE administrators can be found in Appendix D.

Research Question 2

> What differences exist among career-technical education administrators regarding their perceptions about administrator roles/functions, comparing the variables of educational background, tenure in position and education setting?

To answer this research question, several hypotheses were tested. Each one is stated, followed by the results of the statistical analyses for that null hypothesis.

> Hypothesis 1: There is no difference among career-technical education administrators regarding their perceptions about the importance of administrator roles/functions when compared to educational background.

To test whether there were any differences, a one-way analysis of variance was performed. Respondents who said they had a graduate program focus in career-technical education were placed in the "CTE" category; and those who indicated that they had a "general education," "guidance and counseling" or any "other" graduate program focus were placed in the "other" category.

Table 4.16 shows the results of the one-way analysis for educational background differences. Some educational background differences emerged. Career-technical education (CTE) administrators with a graduate program focus in CTE perceived all major categories to be more important than those administrators with an educational background in other areas. However, on the basis of

the computed statistic, the null hypothesis was rejected for two categories: School-Community Relations ($p < .05$) and Business and Financial Management ($p < .05$). CTE administrators having a graduate program focus in career-technical education tended to perceive these two categories as more important than those administrators with an educational background in other areas.

A Chi Square Analysis was used to identify the significant roles/functions in the School-Community Relations and Business and Financial Management categories. Item 71, Coordinate vocational-technical education programs with other community job training programs (such as JTPA), ($p = 0.030$); and Item 68, Develop a marketing plan for promoting vocational-technical education ($p = 0.033$) were found to be significant at the .05 level.

> Hypothesis 2: There is no difference among career-technical education administrators regarding their perceptions about the importance of administrator roles/functions when compared to tenure in position.

As shown in Table 4.17, the one-way analysis of variance showed that career-technical education (CTE) administrators, with 16-20 years of experience, perceived four out of nine categories more important than any other group of administrators. They perceived the categories of Professional Relations and Self-Development, with a mean score of 1.72; Business and Financial Management, with a mean score of 1.76; School-Community Relations, with a mean score of 1.80; and Facilities and Equipment Management, with a mean score of 2.13 to be most important to their positions. CTE administrators, with less than 5 years of experience, perceived most of the

categories to be of lesser importance than any other group of administrators.

Table 4.16

One-Way Analysis of Variance for Educational Background and CTE Administrators' Perceived Importance of Roles/Functions by Major Categories

Major Categories	Educational Background	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	CTE	79	1.87	0.53	0.380	0.539
	Other	69	1.93	0.71		
Instructional Management	CTE	79	2.45	0.71	0.056	0.813
	Other	69	2.48	0.78		
Student Services	CTE	79	2.26	0.99	2.379	0.125
	Other	69	2.53	1.09		
Personnel Management	CTE	79	2.21	0.96	1.092	0.298
	Other	69	2.37	0.91		
Staff Development	CTE	79	1.86	0.90	1.695	0.195
	Other	69	2.06	1.05		
Professional Relations and Self-Development	CTE	79	1.77	0.61	0.513	0.475
	Other	69	1.85	0.75		
School-Community Relations	CTE	79	1.87	0.69	4.404	0.038*
	Other	69	2.13	0.83		
Facilities and Equipment Management	CTE	79	2.29	0.94	1.877	0.173
	Other	69	2.52	1.10		
Business and Financial Management	CTE	79	1.93	0.79	3.941	0.049*
	Other	69	2.19	0.79		

*Significant at the .05 level

When the test of significance was computed, the null hypothesis was rejected for one category, Program Planning, Development and Evaluation ($p < .05$). CTE administrators, with over 20 years of experience, perceived this category to be more important than any other group.

A Chi Square Analysis was performed to determine whether any items in the Program Planning, Development and Evaluation category were significant. Item 12, Recommend curriculum revisions ($p = 0.043$) was found to be significant at the .05 level.

Table 4.17

One-Way Analysis of Variance for Tenure in Position and CTE Administrators' Perceived Importance of Roles/Functions by Major Categories

Major Categories	Tenure in Position	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	< 5 yrs	40	2.14	0.81		
	6-10	34	1.82	0.55		
	11-15	23	1.90	0.66	2.515	0.044*
	16-20	24	1.79	0.46		
	over 20	27	1.73	0.35		
Instructional Management	< 5 yrs	40	2.67	0.90		
	6-10	34	2.35	0.67		
	11-15	23	2.38	0.72	1.117	0.351
	16-20	24	2.38	0.64		
	over 20	27	2.45	0.66		
Student Services	< 5 yrs	40	2.70	1.18		
	6-10	34	2.14	0.87		
	11-15	23	2.24	0.86	1.629	0.170
	16-20	24	2.26	1.07		
	over 20	27	2.48	1.10		
Personnel Management	< 5 yrs	40	2.57	1.13		
	6-10	34	2.21	0.90		
	11-15	23	2.25	1.01	1.779	0.136
	16-20	24	1.95	0.50		
	over 20	27	2.28	0.83		

Table 4.17, continued

Staff Development	< 5 yrs	40	2.18	1.08		
	6-10	34	1.94	1.06		
	11-15	23	1.83	0.77	0.732	0.546
	16-20	24	1.86	1.02		
	over 20	27	1.83	0.79		
Professional Relations and Self-Development	< 5 yrs	40	1.86	0.87		
	6-10	34	1.83	0.62		
	11-15	23	1.81	0.79	0.184	0.947
	16-20	24	1.72	0.50		
	over 20	27	1.77	0.46		
School-Community Relations	< 5 yrs	40	2.16	0.93		
	6-10	34	2.05	0.88		
	11-15	23	1.95	0.67	0.978	0.422
	16-20	24	1.80	0.52		
	over 20	27	1.91	0.57		
Facilities and Equipment Management	< 5 yrs	40	2.69	1.11		
	6-10	34	2.37	1.01		
	11-15	23	2.40	1.09	1.412	0.233
	16-20	24	2.13	0.98		
	over 20	27	2.25	0.81		
Business and Financial Management	< 5 yrs	40	2.15	0.86		
	6-10	34	2.01	0.83		
	11-15	23	2.16	0.91	1.142	0.339
	16-20	24	1.76	0.62		
	over 20	27	2.11	0.69		

*Significant at the .05 level

Hypothesis 3: There is no difference among career-technical education administrators regarding their perceptions about the importance of administrator roles/functions when compared to educational setting.

It should be noted that in order to make comparisons between educational settings of local education agencies (LEA), area career-technical centers (ACTC) and intermediate school districts (ISD), the educational setting of "other" was omitted from the data.

This action resulted in the sample population being reduced from 148 to 143 respondents.

Table 4.18 shows that area career-technical center administrators perceived over half of the categories to be more important than administrators from other educational settings. When the test of significance was computed, the null hypothesis was rejected for one category, Facilities and Equipment Management ($p < .05$). CTE administrators, from area career-technical centers, perceived this category to be more important than any other group.

A Chi Square Analysis was used to identify the significant roles/functions in the Facilities and Equipment Management category. Item 79, Submit building and equipment specifications ($p = 0.0122$); Item 80, Analyze building and contract bids ($p = 0.0262$); and Item 78, Plan space requirements for programs were found to be significant at the .05 level.

Research Question 3

> What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

The career-technical education (CTE) administrators' perceptions of their degree of need for further preparation and continuing professional development in each of the selected roles/functions are shown in Tables 4.19 through 4.28).

Table 4.18

One-Way Analysis of Variance for Educational Setting and CTE Administrators' Perceived Importance of Roles/Functions by Major Categories

Major Categories	Educational Setting	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	LEA	67	1.96	0.60	0.386	0.680
	ACTC	37	1.85	0.71		
	ISD	39	1.89	0.59		
Instructional Management	LEA	67	2.48	0.68	2.777	0.066
	ACTC	37	2.28	0.77		
	ISD	39	2.68	0.79		
Student Services	LEA	67	2.34	0.89	0.419	0.658
	ACTC	37	2.41	1.20		
	ISD	39	2.53	1.16		
Personnel Management	LEA	67	2.46	1.01	2.526	0.084
	ACTC	37	2.04	0.79		
	ISD	39	2.31	0.91		
Staff Development	LEA	67	2.04	1.05	0.415	0.661
	ACTC	37	1.95	1.09		
	ISD	39	1.87	0.72		
Professional Relations and Self-Development	LEA	67	1.91	0.73	1.041	0.356
	ACTC	37	1.73	0.58		
	ISD	39	1.76	0.66		
School-Community Relations	LEA	67	2.08	0.75	0.954	0.388
	ACTC	37	1.87	0.84		
	ISD	39	2.04	0.73		
Facilities and Equipment Management	LEA	67	2.50	1.00	4.153	0.018*
	ACTC	37	2.02	1.00		
	ISD	39	2.65	1.04		
Business and Financial Management	LEA	67	2.09	0.82	0.068	0.934
	ACTC	37	2.06	0.92		
	ISD	39	2.03	0.68		

*Significant at the .05 level

The various roles/functions associated with the administration of CTE have been organized into the following nine major categories: 1) Program Planning, Development and Evaluation; 2) Instructional Management; 3) Student Services; 4) Personnel Management; 5) Staff Development; 6) Professional Relations and Self-Development; 7) School-Community Relations; 8) Facilities and Equipment Management; and 9) Business and Financial Management.

Within each major category, CTE administrators were asked to determine their perceived needs for further preparation and continuing professional development. Their responses ranged from a "High Need" (1 on the scale) to "No Need" (5 on the scale). A given category was considered of "High Need" if it had a mean score between 1.00 and 2.50, of "Moderate Need" if mean scores were between 2.51 and 3.50, and of "No Need" if mean scores were higher than a 3.50.

As shown in Table 4.19, CTE administrators, on the average, expressed a "moderate need" for further preparation in the major categories of roles/functions. Comparing the nine categories of roles/functions, Program Planning, Development and Evaluation was identified as the category in which CTE administrators had the highest need for further preparation, with a mean score of 2.71. Staff Development was ranked second, with a mean score of 2.76; and Professional Relations and Self-Development was ranked third, with a mean score of 2.87.

The category which was ranked as the lowest need for further preparation was Personnel Management, with a mean score of 3.17. It was followed secondly by Facilities and Equipment Management, with a

mean score of 3.15; and third by Student Services, with a mean score of 3.09.

Table 4.19

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Roles/Functions by Major Categories

Major Categories	N	X	SD	Rank
Program Planning, Development and Evaluation (15 items)	148	2.71	0.76	1
Instructional Management (17 items)	148	3.07	0.85	6
Student Services (6 items)	148	3.09	1.02	7
Personnel Management (13 items)	148	3.17	1.07	9
Staff Development (5 items)	148	2.76	1.10	2
Professional Relations and Self-Development (11 items)	148	2.87	0.94	3
School-Community Relations (10 items)	148	2.96	0.89	4
Facilities and Equipment Management (12 items)	148	3.15	1.10	8
Business and Financial Management (10 items)	148	3.01	1.03	5

In the category of Program Planning, Development and Evaluation, the individual role that ranked as the highest need for further preparation by career-technical education administrators was Item 7, Comply with state and/or federal vocational education legislation, with a mean score of 2.28. It was followed by Item 13, Write proposals for the funding of new programs and the improvement of existing programs, with a mean score of 2.36; and Item 6, Prepare

a 3-5 year plan for overall program improvement, with a mean score of 2.41 (see Table 4.20).

Item 1, Survey student interests was ranked as the lowest need for further preparation. It had a mean score of 3.32. The next lowest need for further preparation was Item 10, Conduct student follow-up studies, with a mean score of 3.22. Item 4, Implement strategies to promote non-traditional student enrollment; and Item 15, Develop supplemental/remedial instructional programs to meet student needs followed with tied mean scores of 2.91. Based on the criteria identified by the researcher, five out of 15 items were perceived to be of "High Need" for training by CTE administrators.

Table 4.20

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Program Planning, Development and Evaluation

Item Content	N	X	SD	Rank
1. Survey student interests	148	3.32	1.20	15
2. Analyze labor demand data	148	2.74	1.28	10
3. Direct course/program planning and development efforts	147	2.46*	1.24	4
4. Implement strategies to promote non-traditional student enrollment	148	2.91	1.11	12
5. Prepare an annual plan for delivering vocational-technical education	148	2.72	1.35	9
6. Prepare a 3-5 year plan for overall program improvement	148	2.41*	1.21	3

Table 4.20, continued

7.	Comply with state and/or federal vocational education legislation	148	2.28*	1.27	1
8.	Comply with other job training legislation (such as JTPA)	148	2.90	1.23	11
9.	Conduct course/program reviews	148	2.71	1.25	8
10.	Conduct student follow-up studies	148	3.22	1.27	14
11.	Assess student competency and grading procedures	148	2.66	1.33	7
12.	Recommend curriculum revisions	148	2.47*	1.26	5
13.	Write proposals for the funding of new programs and the improve- of existing programs	147	2.36*	1.35	2
14.	Contract instructional programs with business and industry	148	2.65	1.42	6
15.	Develop supplemental remedial instructional programs to meet student needs	148	2.91	1.30	12

*Met criteria for "High Need" item

For the category of Instructional Management, the area of highest need for further preparation was Item 23, Guide staff in integrating and articulating the vocational-technical program with the total education program, with a mean score of 1.97; followed by Item 30, Guide the articulation of secondary and post-secondary vocational-technical education programs, with a mean score of 2.33; and Item 21, Guide staff in selecting and using effective instructional strategies, with a mean score of 2.46 (see Table 4.21).

In this category, the individual roles, in which CTE administrators perceived they needed the least additional preparation were Item 18, Provide student discipline, with a mean score of 3.78; Item 20, Prepare a master schedule of course/program offerings, with a mean score of 3.72; and Item 29, Direct the adult and continuing education programs, with a mean score of 3.61. Based on the criteria identified by the researcher, three out of 17 items were perceived to be of "High Need" for training by CTE administrators.

Table 4.21

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Instructional Management

Item Content	N	X	SD	Rank
16. Establish instructional program entry and completion requirements	147	2.99	1.31	8
17. Establish student rules and policies	148	3.59	1.27	13
18. Provide student discipline	148	3.78	1.27	17
19. Prepare a student handbook	147	3.60	1.34	14
20. Prepare a master schedule of course/program offerings	148	3.72	1.37	16
21. Guide staff in selecting and using effective instructional strategies	147	2.46*	1.34	3
22. Direct the cooperative education program	148	3.39	1.34	12

Table 4.21. continued

23.	Guide staff in integrating and articulating the vocational-technical program with the total educational program	147	1.97*	1.22	1
24.	Promote the integration of vocational student organizational activities within the instructional program	147	3.08	1.36	10
25.	Direct the apprenticeship and training program	146	2.70	1.48	4
26.	Provide technical assistance in the development of programs for the special populations	147	2.82	1.23	5
27.	Provide technical assistance in the development of customized training programs for business and industry	146	2.86	1.46	6
28.	Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination	147	2.99	1.14	8
29.	Direct the adult and continuing education program	145	3.61	1.48	15
30.	Guide the articulation of secondary and post-secondary vocational-technical education programs	146	2.33*	1.35	2
31.	Approve selection of instructional equipment	147	2.97	1.33	7
32.	Approve selection of instructional supplies and materials	147	3.24	1.35	11

*Met criteria for "High Need" item

As shown in Table 4.22, in the category of Student Services, the individual role with the highest need for further preparation was Item 33, Design student recruitment materials, with a mean score of 2.61. It was followed by Item 37, Comply with student labor laws and regulations, with a mean score of 2.99; and Item 34, Oversee vocational guidance and testing services, with a mean score of 3.03. The individual role with the least need for further preparation was Item 38, Conduct student orientation activities, with a mean score of 3.50.

Table 4.22

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Student Services

Item Content	N	X	SD	Rank
33. Develop student recruitment materials	147	2.61	1.34	1
34. Oversee vocational guidance and testing services	147	3.03	1.37	3
35. Oversee student job placement services	147	3.22	1.25	5
36. Provide for a student record-keeping system	147	3.13	1.37	4
37. Comply with student labor laws and regulations	147	2.99	1.42	2
38. Conduct student orientation activities	147	3.50	1.27	6

For the category of Personnel Management, the individual role in which CTE administrators perceived the most need for further preparation was Item 50, Evaluate staff performance, with a mean

score of 2.65; followed by Item 41, Assess program staffing requirements, with a mean score of 2.99; and Item 48, Comply with licensing and certification regulations, with a mean score of 3.00 (see Table 4.23).

Table 4.23

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Personnel Management

Item	Content	N	X	SD	Rank
9.	Interpret labor contracts	147	3.12	1.43	6
40.	Negotiate labor contracts	146	3.37	1.56	10
41.	Assess program staffing requirements	148	2.99	1.35	2
42.	Prepare job descriptions and requirements	148	3.11	1.38	5
43.	Prepare a personnel handbook	145	3.49	1.42	12
44.	Interview potential staff	148	3.03	1.44	4
45.	Schedule staff work loads	148	3.47	1.38	11
46.	Provide for a staff record-keeping system	148	3.57	1.32	13
47.	Conduct staff meetings	148	3.24	1.34	9
48.	Comply with licensing and certification requirements	148	3.00	1.35	3
49.	Prepare bulletins and other communications to keep staff informed	148	3.16	1.35	8
50.	Evaluate staff performance	148	2.65	1.49	1
51.	Conduct staff orientation activities	147	3.13	1.43	7

In this category, the individual roles that were perceived to be of least need for additional preparation were Item 46, Provide for a staff record-keeping system, with a mean score of 3.57; Item 43, Prepare a personnel handbook, with a mean score of 3.49; and Item 45, Schedule staff work loads, with a mean score of 3.47.

As shown in Table 4.24, in the category of Staff Development, CTE administrators perceived Item 55, Arrange for staff exchanges with business and industry, with a mean score of 2.55, as the most need for further preparation. Ranking in second place was Item 52, Assess staff development needs, with a mean score of 2.74.

The individual roles with the least need for additional preparation was Item 56, Evaluate staff development programs, with a mean score of 2.92; and Item 54, Arrange for workshops and inservice programs, with a mean score of 2.81.

Table 4.24

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Staff Development

Item Content	N	X	SD	Rank
52. Assess staff development needs	148	2.74	1.37	2
53. Conduct workshops and other inservice programs	148	2.78	1.36	3
54. Arrange for workshops and inservice programs	147	2.81	1.41	4
55. Arrange for staff exchanges with business and industry	148	2.55	1.36	1
56. Evaluate staff development programs	148	2.92	1.37	5

As shown in Table 4.25, for the category of Professional Relations and Self-Development, the individual roles perceived to be most needed for additional preparation were Item 67, Assess personal performance as an administrator, with a mean score of 2.40; Item 66, Develop cooperative problem solving and decision-making skills, with a mean score of 2.44; and Item 63, Participate in the development of legislative rules and regulations for vocational-technical education, with a mean score of 2.55.

The individual roles in which CTE administrators expressed the least need for further preparation were Item 60, Participate in professional organizations other than vocational-technical education, with a mean score of 3.40; Item 62, Model professional image through personal appearance and conduct, with a mean score of 3.32; and Item 59, Participate in organizations related to vocational-technical education, with a mean score of 3.22. Based on the criteria identified by the researcher, two out of 11 items were perceived to be of "High Need" for training by CTE administrators.

For the category of School-Community Relations, the area of highest need for further preparation was Item 68, Develop a marketing plan for vocational-technical education, with a mean score of 2.37 (see Table 26). It was followed by Item 72, Involve community leaders (political and non-political) in school programs and activities, with a mean score of 2.66; and Item 71, Coordinate vocational-technical education programs with other community job training programs (such as JTPA), with a mean score of 2.37.

Table 4.25

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Professional Relations and Self-Development

Item Content	N	X	SD	Rank
57. Develop effective interpersonal skills	148	2.66	1.37	5
58. Prepare testimony for public hearings	148	3.05	1.36	7
59. Participate in professional organizations related to vocational-technical education	148	3.23	1.45	9
60. Participate in professional organizations other than vocational-technical education	148	3.40	1.31	11
61. Participate in professional development activities for self-improvement	148	2.85	1.38	6
62. Model professional image through personal appearance and conduct	148	3.32	1.38	10
63. Participate in the develop- of legislative rules and regulations for vocational-technical education	148	2.55	1.31	3
64. Apply information from professional journals, reports and related materials for self-improvement	148	3.05	1.17	7
65. Apply time management techniques to personal work assignments	148	2.59	1.27	4
66. Develop cooperative problem solving and decision-making skills	148	2.44*	1.41	2
67. Assess personal performance as an administrator	148	2.40*	1.30	1

*Met criteria for "High Need" item

In this category, the individual roles in which CTE administrators perceived they needed the least additional preparation were Item 77, Conduct open house activities, with a mean score of 3.41; Item 70, participate in community activities, with a mean score of 3.39; and Item 75, Plan for exhibits and displays. Based on the criteria identified by the researcher, one out of 10 items were perceived to be of "High Need" for training by CTE administrators.

As shown in Table 4.27, in the category of Facilities and Equipment Management, the individual role perceived to be of most need for additional preparation was Item 85, Comply with health and safety laws and regulations, with a mean score of 2.73. It was followed by Item 84, Establish a long-range plan for acquisition of new equipment, with a mean score of 2.85; and Item 79, Submit building and equipment specifications, with a mean score of 3.00.

The individual roles perceived to be of least need for further preparation was Item 88, Schedule facility use by community members, with a mean score of 3.85; Item 81, Oversee architectural planning, with a mean score of 3.44; and Item 87, Establish emergency plans (such as fire and disaster), with a mean score of 3.40.

For the category of Business and Financial Management, the individual roles in which CTE administrators perceived the most need for further preparation was Item 96, Locate sources of funds for program development and operation, with a mean score of 2.26; Item 95, Analyze the cost of operating various instructional programs;

and Item 99, Prepare local, state and federal reports, with a tied mean score of 2.59 (see Table 4.28).

Table 4.26

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of School-Community Relations

Item Content	N	X	SD	Rank
68. Develop a marketing plan for promoting vocational-technical education	147	2.37*	1.23	1
69. Provide technical assistance in the establishment of advisory committees	148	2.93	1.28	6
70. Participate in community activities	148	3.39	1.25	9
71. Coordinate vocational-technical education programs with other community job training programs (such as JTPA)	148	2.82	1.29	3
72. Involve community leaders (political and non-political) in school programs and activities	148	2.66	1.22	2
73. Conduct recognition programs for students, staff and community supporters	148	2.89	1.20	4
74. Make informational presentations to the public	147	3.01	1.29	7
75. Plan for exhibits and displays	148	3.24	1.22	8
76. Write news releases for school area media	148	2.90	1.34	5
77. Conduct open house activities	148	3.41	1.29	10

*Met criteria for "High Need" item

Table 4.27

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Facilities and Equipment Management

Item Content	N	X	SD	Rank
78. Plan space requirements for programs	148	3.01	1.40	5
79. Submit building and equipment specifications	148	3.00	1.44	3
80. Analyze building and contract bids	148	3.27	1.46	9
81. Oversee architectural planning	148	3.44	1.48	11
82. Develop a plan for repair and maintenance of equipment and facilities	147	3.03	1.37	6
83. Maintain an equipment and supply inventory system	148	3.20	1.44	8
84. Establish a long-range plan for acquisition of new equipment	148	2.85	1.39	2
85. Comply with health and safety laws and regulations	148	2.73	1.36	1
86. Direct a safety awareness program	148	3.00	1.39	3
87. Establish emergency plans (such as fire and disaster)	148	3.40	1.52	10
88. Schedule facility use by community members	148	3.85	1.34	12
89. Prepare renovation and alternation plans	147	3.03	1.53	6

The individual roles in which CTE administrators perceived as being least important for additional preparation were Item 91, Establish receiving and shipping procedures, with a mean score of

3.82; Item 97, Approve requisitions and work orders, with a mean score of 3.51; and Item 90, Establish purchasing and payment procedures, with a mean score of 3.45. Based on the criteria identified by the researcher, one out of 10 items were perceived to be of "High Need" for training by CTE administrators.

A complete ranked order listing of perceived needs for further preparation and continuing professional development by CTE administrators can be found in Appendix E.

Research Question 4

> What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

To answer this research question, several hypotheses were tested. Each one is stated, followed by the results of the statistical analyses for that null hypothesis.

> Hypothesis 1: There is no difference among career-technical education administrators regarding their perceptions of professional development needs when compared to educational background.

To test whether there were any differences, a one-way analysis of variance was performed. Respondents who said they had a graduate program focus in career-technical education were placed in the "CTE" category; and those who indicated that they had a "general education," "guidance and counseling" or any "other" graduate program focus were placed in the "other" category.

Table 4.28

CTE Administrators' Perceptions of their Personal Needs for Further Preparation in the Category of Business and Financial Management

Item Content	N	X	SD	Rank
90. Establish purchasing and payment procedures	148	3.45	1.50	8
91. Establish receiving and shipping procedures	147	3.82	1.36	10
92. Prepare budgets	148	2.64	1.38	4
93. Administer budgets	148	2.74	1.35	5
94. Adopt an appropriate financial accounting system	147	3.14	1.55	6
95. Analyze the cost of operating various instructional programs	148	2.59	1.36	2
96. Locate sources of funds for program development and operation	148	2.26*	1.28	1
97. Approve requisitions and work orders	148	3.51	1.38	9
98. Respond to business correspondence	148	3.38	1.29	7
99. Prepare local, state and federal reports	148	2.59	1.45	2

*Met criteria for "High Need" item

As shown in Table 4.29, the one-way analysis of variance showed no statistically significant differences among the two groups of CTE administrators ($p = > .05$) with regard to their perception of their needs for further preparation within the nine major categories. Thus, the null hypothesis of no significant difference was not

rejected at the .05 level. It should noted, however, that the group of administrators, having a graduate program focus in an area other than CTE, perceived a higher need for additional preparation in all categories except School-Community Relations.

> Hypothesis 2: There is no difference among career-technical education administrators regarding their perceptions of professional development needs when compared to tenure in position.

As shown in Table 4.30, career-technical education (CTE) administrators, having 10 years or less experience, indicated a higher need for additional preparation in the category of Business and Financial Management than those administrators who had 10 or more years of experience. In contrast, the more experienced administrators (10 years of more) seemed to have a greater perceived need for continuing professional development in most of the other categories.

The one-way analysis of variance showed no statistically significant differences among the five groups of CTE administrators ($p = > .05$) with regard to their perception of their needs for further preparation within the nine major categories. Thus, the null hypothesis of no significant difference was retained.

> Hypothesis 3: There is no difference among career-technical education administrators regarding their perceptions of professional development needs when compared to educational setting.

Table 4.29

One-Way Analysis of Variance for Educational Background and CTE Administrators' Perceived Needs for Professional Development by Major Categories

Major Categories	Educational Background	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	CTE	79	2.77	0.72	0.800	0.372
	Other	69	2.65	0.80		
Instructional Management	CTE	79	3.18	0.81	2.955	0.088
	Other	69	2.94	0.88		
Student Services	CTE	79	3.17	0.98	1.091	0.298
	Other	69	3.00	1.05		
Personnel Management	CTE	79	3.30	1.06	2.424	0.122
	Other	69	3.03	1.07		
Staff Development	CTE	79	2.77	1.02	0.021	0.884
	Other	69	2.75	1.18		
Professional Relations and Self-Development	CTE	79	2.95	0.95	1.321	0.252
	Other	69	2.77	0.92		
School-Community Relations	CTE	79	2.95	0.86	0.042	0.839
	Other	69	2.98	0.93		
Facilities and Equipment Management	CTE	79	3.21	1.03	0.415	0.520
	Other	69	3.09	1.17		
Business and Financial Management	CTE	79	3.05	0.99	0.198	0.657
	Other	69	2.97	1.08		

Table 4.30

One-Way Analysis of Variance for Tenure in Position and CTE Administrators' Perceived Needs for Professional Development by Major Categories

Major Categories	Tenure in Position	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	< 5 yrs	40	2.66	0.80		
	6-10	34	2.85	0.80		
	11-15	23	2.86	0.58	0.866	0.486
	16-20	24	2.58	0.63		
	over 20	27	2.61	0.87		
Instructional Management	< 5 yrs	40	3.03	1.01		
	6-10	34	3.10	0.80		
	11-15	23	3.14	0.71	0.086	0.987
	16-20	24	3.08	0.75		
	over 20	27	3.02	0.88		
Student Services	< 5 yrs	40	3.03	1.11		
	6-10	34	3.18	0.89		
	11-15	23	3.10	1.09	0.297	0.879
	16-20	24	2.94	0.97		
	over 20	27	3.20	1.06		
Personnel Management	< 5 yrs	40	3.03	1.26		
	6-10	34	3.35	1.05		
	11-15	23	3.30	0.89	0.839	0.503
	16-20	24	2.93	1.04		
	over 20	27	3.26	0.96		
Staff Development	< 5 yrs	40	2.81	1.18		
	6-10	34	2.87	1.15		
	11-15	23	2.58	0.96	0.452	0.771
	16-20	24	2.87	1.22		
	over 20	27	2.60	0.92		
Professional Relations and Self-Development	< 5 yrs	40	2.71	1.09		
	6-10	34	3.04	0.90		
	11-15	23	3.05	0.91	0.952	0.436
	16-20	24	2.87	0.86		
	over 20	27	2.72	0.82		
School-Community Relations	< 5 yrs	40	2.86	0.93		
	6-10	34	3.08	0.87		
	11-15	23	3.08	0.91	0.680	0.607
	16-20	24	3.05	0.97		
	over 20	27	2.79	0.77		

Table 4.30, continued

Facilities and Equipment Management	< 5 yrs	40	3.18	1.17		
	6-10	34	3.24	1.13		
	11-15	23	3.15	1.06	0.128	0.972
	16-20	24	3.04	1.17		
	over 20	27	3.10	0.97		
Business and Financial Management	< 5 yrs	40	2.86	1.13		
	6-10	34	3.02	0.94		
	11-15	23	3.34	0.93	0.828	0.510
	16-20	24	3.00	1.10		
	over 20	27	2.95	1.00		

It should be noted that in order to make comparisons between educational settings of local education agencies (LEA), area career-technical centers (ACTC) and intermediate school districts (ISD), the educational setting of "other" was omitted from the data. This action resulted in the sample population being reduced from 148 to 143 respondents.

Table 4.31 shows that statistically significant differences were found among the three groups of CTE administrators in three categories. The null hypothesis of no significant difference was rejected at the .05 level for the categories of Student Services, Facilities and Equipment Management, and Business and Financial Management categories.

A Chi Square Analysis was used to identify the significant ($p < .05$) roles/functions in each of these categories. In the category of Student Services, Item 37, Comply with student labor laws and regulations was found to be significant ($p = 0.0039$). In the category of Facilities and Equipment Management, Item 79, Submit building and equipment specifications ($p = 0.0122$); Item 78, Plan

Table 4.31

One-Way Analysis of Variance for Educational Setting and CTE Administrators' Perceived Needs for Professional Development by Major Categories

Major Categories	Tenure in Position	N	X	SD	F-Ratio	p
Program Planning, Development and Evaluation	LEA	67	2.64	0.77		
	ACTC	37	2.88	0.81	1.216	0.300
	ISD	39	2.69	0.70		
Instructional Management	LEA	67	2.96	0.87		
	ACTC	37	3.21	0.91	1.108	0.333
	ISD	39	3.13	0.80		
Student Services	LEA	67	2.87	0.99		
	ACTC	37	3.50	1.01	4.830	0.009*
	ISD	39	3.08	1.00		
Personnel Management	LEA	67	3.09	1.21		
	ACTC	37	3.35	0.94	0.709	0.494
	ISD	39	3.17	0.98		
Staff Development	LEA	67	2.64	1.24		
	ACTC	37	3.01	1.08	1.368	0.258
	ISD	39	2.73	0.86		
Professional Relations and and Self-Development	LEA	67	2.82	0.96		
	ACTC	37	2.98	0.94	0.332	0.718
	ISD	39	2.86	0.93		
School-Community Relations	LEA	67	2.82	0.89		
	ACTC	37	3.18	0.86	2.038	0.134
	ISD	39	3.01	0.94		
Facilities and Equipment Management	LEA	67	2.92	1.21		
	ACTC	37	3.35	0.93	3.022	0.052*
	ISD	39	3.38	1.02		
Business and Financial Management	LEA	67	2.77	1.05		
	ACTC	37	3.29	1.00	3.581	0.030*
	ISD	39	3.14	1.01		

* Significant at the .05 level

space requirements for programs ($p = 0.0375$); and Item 80, Analyze building and contract bids ($p = 0.0262$), were found to be significant.

In the category of Business and Financial Management, Item 96, Locate sources of funds for program development and operation was found to be significant ($p = 0.0167$) at the .05 level.

Summary

In this chapter, data were presented on characteristics of the sample of secondary career-technical education (CTE) administrators, including gender, age, highest degree held, focus of undergraduate and graduate programs, years of experience as a CTE administrator, type and description of educational setting where employed, percentage of time administering CTE programs, type of administrative certification needed for position and the likelihood of retiring or leaving career-technical education in the next five years.

In addition, data for each of the following four research questions were reported:

1. What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

2. What differences exist among career-technical education administrators regarding their perceptions about administrator roles/functions, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

3. What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

4. What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

Three research hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter comprises four major sections: a) summary of purpose and methods, b) major findings and discussion, c) conclusions, and d) recommendations.

The following research questions were addressed in this study:

1. What do career-technical education administrators perceive to be the range of importance in each of the selected roles/functions?

2. What differences exist among career-technical education administrators regarding their perceptions about roles/functions, comparing the variables of educational background, tenure in position and educational setting?

Three hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

3. What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

4. What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

Three hypotheses were tested to determine what differences existed among career-technical education administrators regarding their perceptions comparing the related variables.

Summary of Purpose and Methods

Purpose

The researcher's purposes in this study were to identify the range and importance of selected roles/functions of Michigan secondary career-technical education (CTE) administrators and to identify their personal needs for further preparation and continuing professional development. The study also addressed the relationships between these perceptions and needs and selected factors such as educational background, tenure in position and educational setting.

The significance of the study comes as a consequence of Public Act 163, which requires the certification of school administrators in Michigan. It is anticipated that the results of the study will be useful in supporting the suggested criteria for administrator certification, reimbursement as a CTE administrator and increase the awareness of individuals who are responsible for recruiting CTE administrators.

Population

The population for the study consisted of 224 secondary CTE administrators, identified in the 1990-91 Michigan Directory of Vocational Contact Persons. The directory was published by the

Michigan Department of Education, Career-Technical Education Service, P.O. Box 30009, Lansing, Michigan 48909.

Measures

The survey instrument, developed for this study, included a 13-item background section that described the sample population in terms of gender, age, highest degree held, focus of undergraduate and graduate programs, years of experience as a CTE administrator, type and description of educational setting where employed, percentage of time administering CTE programs, type of administrative certification needed for position and the likelihood of retiring or leaving CTE in the next five years.

In addition, the instrument included 99 items that described various roles/functions associated with the administration of CTE. The roles/functions were organized into the following nine major categories: Program Planning, Development and Evaluation; Instructional Management; Student Services; Personnel Management; Staff Development; Professional Relations and Self-Development; School-Community Relations; Facilities and Equipment Management; and Business and Financial Management. For each role descriptor, respondents were asked to indicate the level of importance to their role as a CTE administrator, and their perceived need for further preparation and continuing professional development.

To determine the level of importance, a five-point scale was used with "1" being "Very Important," "2" being "Moderately Important," "3" being of "Little Importance," "4" being "Not

Important," and "5" being "Not Part of Job/Never Do It." The mean scores for each major category, and individual items within each category were then rank ordered to determine the roles/functions that were perceived to be of most importance.

A second five-point scale was used to determine the perceived need for further preparation and continuing professional development for each role descriptor. Respondents indicated a "1" for "High Need," a "3" for "Moderate Need," or a "5" for "No Need." The mean scores for each major category, and individual items within each category were then rank ordered to determine the roles/functions that were perceived to be most needed for further preparation and professional development.

Data Collection

The data collection followed a two-step procedure. Step one involved mailing an explanatory cover letter and survey instrument to the population of secondary CTE administrators. This initial mailing included a stamped, return-addressed envelope for the survey. It also included a numbered postcard that was return-addressed and stamped. The number on the postcard corresponded to a number that was given to each respondent. Respondents were asked to mail the completed survey instrument and numbered postcard separately. This procedure was followed so as to identify those who have returned the survey instrument and to avoid duplication in a follow-up mailing.

Step two of the procedure involved sending a follow-up letter to those persons who had not returned the survey instrument within two weeks. The data collection procedures were completed in about six weeks.

Data Analysis

The data gathered from the instrument were analyzed by using the Statistical Package for the Social Sciences (SPSS) data-analysis system. Specifically, subprograms in descriptive statistics, one-way analysis of variance and Chi Square Analysis were used.

Major Findings and Discussion

In this section, the demographics of the sample population are described, and major findings regarding the issues of this study are discussed and compared.

Demographics of Sample Population

Two hundred, twenty-four secondary career-technical education (CTE) administrators in Michigan were surveyed. Of that number, 148 individuals participated in the study for a response rate of 66%.

Seventy-six percent (112) of the respondents were male, and 24% (36) were females. The majority of the respondents were, 50.7% (75) between 41 and 50 years of age. Another 39.2% (58) of them were over 50 years of age. There were no respondents who reported they were less than 30 years of age.

As for their academic preparation and years of experience as a CTE administrator, most of the respondents (107) had a Masters degree (33.1%) or a Masters degree plus 30 graduate hours (39.2%). An additional 39 respondents (29.3%) held further advanced degrees. The average years of experience ranged from 0-5 years to 20 or more years, with almost 27.0% of the respondents (40) administering CTE programs for less than five years.

When asked about their assignment levels, 67 (45.3%) of the respondents worked in a local education agency, 37 (25.0%) said they worked in an area career-technical center, and 39 (26.4%) said they worked in an intermediate school district. An additional five respondents (3.4%) reported that they worked in some other type of educational setting. The positions held by 85.2% of the respondents required either secondary or central office administrator certification.

As for the likelihood of retiring or leaving career-technical education, almost half of the respondents (49.3%) indicated that they would not likely retire or leave CTE in the next five years. The remaining respondents indicated they would very likely (26.4%) or possibly (24.3%) leave CTE or retire within the same five year period.

Major Findings Resulting from Research Questions

Four research questions were formulated to serve the purpose of the study. In the following pages, each research question is restated, followed by a discussion of the major findings related to

that question. The findings resulted in two types of analyses: descriptive and comparisons between sample means.

Research Question 1

> What do career-technical education administrators perceive to be the range of importance in each selected roles/functions?

The descriptive analysis of the data showed that all nine major categories of roles/functions were perceived by secondary CTE administrators to be "moderately" to "very" important to their positions (mean score on each scale was less than a 2.51). However, when comparing the major categories of roles/functions, the analysis revealed that Professional Relations and Self-Development was perceived to be the most important category, followed by Program Planning, Development and Evaluation, and Staff Development.

The remaining categories were identified as important but to a lesser degree. This finding may be explained partly by the fact that many educational agencies employ full-time curriculum/ instructional specialists, personnel directors, business managers, adult and community education coordinators and building principals, who either assume the entire responsibility for instructional management, personnel management, school-community relations, financial management and student services, or assist the CTE administrator in these areas. The data showed that only half of the respondents spent 100% of their time administering CTE programs. The other respondents may have had other teaching or administrative responsibilities.

In reviewing the specific items within all nine categories, the descriptive analysis showed that the ten highest ranked roles/functions of importance were:

1. Direct course/program planning and development efforts (Item 3)
2. Administer budgets (Item 93)
3. Prepare budgets (Item 92)
4. Model professional image through personal appearance and conduct (Item 62)
5. Guide staff in integrating and articulating the vocational-technical education program with the total educational program (Item 23)
6. Develop cooperative problem solving and decision-making skills (Item 66)
7. Recommend curriculum revisions (Item 12)
8. Assess personal performance as an administrator (Item 67)
9. Comply with state and/or federal vocational education legislation (Item 7)
10. Develop effective interpersonal skills (Item 57)

When the nine categories were reviewed for the ten least important roles/functions, the following items were identified:

1. Direct adult and continuing education programs (Item 29)
2. Negotiate labor contracts (Item 40)
3. Schedule facility use by community members (Item 88)
4. Establish receiving and shipping procedures (Item 91)
5. Provide student discipline (Item 18)
6. Prepare a personnel handbook (Item 43)

7. Prepare a student handbook (Item 19)

8. Prepare a master schedule of course/program offerings (Item 20)

9. Oversee architectural planning (Item 81)

10. Provide for a staff record-keeping system (Item 46)

In comparing the highest and lowest-ranked individual items, it must be kept in mind that all major categories of roles/functions were perceived to be "moderately" or "very" important to CTE administrators. However, when the mean score of the highest ranked item (Item 3: Direct course/program planning and development efforts, mean = 1.39) and the lowest ranked item (Item 29: Direct the adult and continuing education programs, mean = 3.43) were compared, a difference of 2.04 was noted.

There were no individual items which were perceived to be "not important" to their positions (mean score on each scale greater than a 3.50). A complete rank-ordered listing of the important roles/functions as perceived by CTE administrators can be found in Appendix D.

Research Question 2

> What differences exist among career-technical education administrators regarding their perceptions about administrator roles/functions, comparing the variables of educational background, tenure in position and education setting?

In reviewing the data, some educational background differences emerged. CTE administrators with a graduate program focus in CTE perceived all major categories to be more important than those

administrators with an educational background in other areas. However, significant differences were found only for two categories: School-Community Relations and Business and Financial Management ($p < .05$).

As for their perceptions on importance of roles/functions, when compared to tenure in position, CTE administrators with 16-20 years of experience perceived four out of nine categories to be more important than any other group of administrators. The four categories were: Professional Relations and Self-Development, Business and Financial Management, School-Community Relations, and Facilities and Equipment Management. CTE administrators, with 5 years or less experience, perceived most of the categories to be of least importance to their positions. Only one category, Program Planning, Development and Evaluation was found to be significant at the .05 level. CTE administrators, with over 20 years of experience, perceived this category to be more important than any other group.

In terms of educational setting, area career-technical center administrators perceived over half of the categories to be more important than administrators who responded from other educational settings. The category of Facilities and Equipment Management was found to be significant at the .05 level. CTE administrators, from area career-technical centers, perceived this category to be more important than administrators from local education agencies and intermediate school districts.

Research Question 3

What do career-technical education administrators perceive to be their degree of need for further preparation and continuing professional development in each of the selected roles/functions?

CTE administrators, on the average, expressed a "moderate need" for further preparation in the major categories of roles/functions (a mean score on most scales was between a 2.51 and 3.50). The category of Program Planning, Development and Evaluation was identified as the category in which CTE administrators had the highest need for professional development. Staff Development was ranked second, and Professional Relations and Self-Development was ranked third. The category which was ranked as the lowest need for further preparation was Personnel Management.

When examining the individual roles/functions within the major categories, the ten highest ranked items in terms of need for further preparation were:

1. Guide staff in integrating and articulating the vocational-technical program with the total educational program (Item 23)
2. Locate sources of funds for program development and operation (Item 96)
3. Comply with state and/or federal vocational education legislation (Item 7)
4. Guide the articulation of secondary and post-secondary vocational-technical education programs (Item 30)
5. Write proposals for the funding of new programs and the improvement of existing programs (Item 13)
6. Develop a marketing plan for promoting vocational-technical education (Item 68)

7. Assess personal performance as an administrator (Item 67)

8. Prepare a 3-5 year plan for overall program improvement (Item 6)

9. Develop cooperative problem solving and decision-making skills (Item 66)

10. Direct course/program planning and development efforts (Item 3)

When the major categories were reviewed further for the ten lowest-ranked items, the following roles/functions were identified:

1. Schedule facility use by community members (Item 88)

2. Establish receiving and shipping procedures (Item 91)

3. Provide student discipline (Item 18)

4. Prepare a master schedule of course/program offerings (Item 20)

5. Direct the adult and continuing education programs (Item 29)

6. Prepare a student handbook (Item 19)

7. Establish student rules and policies (Item 17)

8. Provide for a staff record-keeping system (Item 46)

9. Approve requisitions and work orders (Item 97)

10. Conduct student orientation activities (Item 38)

In comparing the highest and lowest-ranked individual items, it must be kept in mind that CTE administrators expressed a "moderate need" for further preparation and continuing professional development in all major categories of roles/functions. However, when the mean score of the highest ranked item (Item 23: Guide staff in integrating and articulating the vocational-technical

program with the total educational program, mean = 1.98) and the lowest ranked item (Item 88: Schedule facility use by community members, mean = 3.85) were compared, a difference of 1.87 was noted. A complete rank-ordered listing of perceived needs for further preparation and continuing professional development by CTE administrators can be found in Appendix E.

Research Question 4

> What differences exist among career-technical education administrators regarding their professional development needs, comparing the variables of educational background, tenure in position and educational setting?

There were no significant differences, when respondents were compared by educational background and tenure in position, with regard to their perception of their needs for further preparation within the nine major categories. However, when respondents were compared by educational settings, CTE administrators from local education agencies perceived their needs to be greater in all major categories, than administrators from area career-technical centers and intermediate school districts. Significant differences were found in the categories of Student Services, Facilities and Equipment Management, and Business and Financial Management ($p < .05$).

Summary

When the results from the importance and the perceived need scales were compared with each other, some judgments were made by

the researcher to determine the range of importance of a given category, or role/function, and its perceived training needs. The following scale was used:

1.00 - 2.50	Very Important/High Need
2.51 - 3.50	Little Importance/Moderate Need
3.51 +	Not Important/No Need

A major category or individual role descriptor was judged important, and considered a priority need for further preparation and continuing professional development, if it received an average rating of less than a 2.51 on either scale. The following items were identified as having met this criteria (see Appendix F).

Category	Item
Program Planning, Development and Evaluation	3. Direct course/program planning and development efforts
	6. Prepare a 3-5 year plan for overall program improvement
	7. Comply with state and/or federal vocational education legislation
	12. Recommend curriculum revisions
	13. Write proposals for the funding of new programs and the improvement of existing programs
Instructional Management	21. Guide staff in selecting and using effective instructional strategies

	22.	Guide staff in integrating and articulating the vocational-technical program with the total educational program
	30.	Guide the articulation of secondary and post-secondary vocational-technical education programs
Professional Relations and Self-Development	66.	Develop cooperative problem solving and decision-making skills
	67.	Assess personal performance as an administrator
School-Community Relations	68.	Develop a marketing plan for vocational-technical education
Business and Financial Management	96.	Locate sources of funds for program development and operation

The perceived importance and training needs of the major categories of roles/functions were then compared among three independent variables: educational background, tenure in position and education setting. To test if there were any differences among groups of CTE administrators, a one-way analysis of variance was performed. A Chi Square Analysis was later used to identify the significant roles/functions within each major category.

Conclusions

In Chapter II, the issues related to educational administration, vocational educational leadership and professional development were presented. Limited information was cited as not being available to support the suggested criteria for administrator

certification, reimbursement as a career-technical administrator and for increasing the awareness of individuals who are responsible for recruiting career-technical education (CTE) administrators.

This study was undertaken to better understand two areas related to the administration of career-technical education programs. They were (a) the perceptions of CTE administrators about the range and importance of their job roles/functions, and (b) their identified needs for further preparation and continuing professional development. The following conclusions are suggested by the results.

1. **There will be a shortage of leaders in career-technical education.**
   - -- About 40% (58) of the sample population will be retired or eligible to retire in the next 10 years.
   - -- The data indicated that 50.7% of the respondents may "very likely" or "possibly" leave or retire from career-technical education within the next five years. That figure may suggest that at least half of the secondary CTE administrators will be "new" to their positions.
   - -- Due to declining enrollments, faculty retirements and loss of support for career-technical education, most colleges and universities have either dropped their graduate career-technical administrator preparation programs or have subsumed them into general education administration degree programs.

-- As of July, 1990, there are no state-sponsored leadership development programs for aspiring CTE administrators. A highlight of this program was the internship experience with practicing administrators.

2. **There are expanded administrative roles/functions in CTE based on emerging educational trends.**

   -- Half of the respondents spent 100% of their time administering CTE programs; whereas, the other half of the population was assigned job responsibilities in addition to CTE.

   -- A review of literature revealed that new state/federal legislation will have an impact on the administration of CTE programs, i. e., integrating academic and CTE programs, articulating secondary/ post-secondary CTE programs, and preparing 3-5 year program improvement plans.

3. **The roles/functions, identified in this study, have demonstrated the level of validity for the preparation and selection of CTE administrators.**

   -- The roles/functions were identified from a review of literature, previous studies related to the administration of CTE and the review of various publications from national professional organizations and the Michigan Department of Education.

-- The data showed that all nine major categories of roles/functions were perceived, by practicing administrators, to be important to their positions.

-- The roles/functions in the major categories of Professional Relations and Self-Development; Program Planning, Development and Evaluation; and Staff Development were perceived to be more important than the roles/functions found in other categories.

4. There is a need for continuing professional development opportunities for practicing administrators.

-- Eighty-five percent of the positions, held by respondents in the study, required some type of administrator certification.

-- Public Act 163 of 1988 requires that for each five year period, school administrators must renew their administrative certification by earning college credit and/or State Board Continuing Education Units (SB-CEUs).

-- Career-technical education has been successful in attracting individuals from other discipline areas for leadership positions. Almost half of the respondents (46.7%) indicated they had a graduate program focus in an area outside of CTE. These individuals reported needing further preparation in all their job responsibilities related to their positions.

5. **Educational background makes very little difference, except in the categories of School-Community Relations and Business and Financial Management, in regards to what roles/functions are important to CTE administrators.**
   -- CTE administrators having a graduate program focus in career-technical education tended to perceive these two categories as more important that those administrators with an educational background in some other area.
6. **It makes very little difference, except in the category of Program Planning, Development and Evaluation, whether an individual is a new administrator or an experienced administrator, with regard to the roles/functions being important to their positions.**
   -- CTE administrators, with over 20 years of experience, perceived this category to be more important than any other age group.
7. **Educational setting makes very little difference, except in the category of Facilities and Equipment Management, in regards to what roles/functions are important to CTE administrators.**
   -- CTE administrators, from area career-technical centers, perceived this category to be more important than administrators from local education agencies and intermediate school districts.
8. **It makes very little difference when CTE administrators are compared with educational background and tenure in position,**

with regard to their roles/functions and perceived needs for further preparation.

9. Educational setting makes a difference in regards to what CTE administrators perceive to be their needs for further preparation and continuing professional development.
   -- CTE administrators from local education agencies perceived their professional development needs to be greater in all major categories, than administrators from area career-technical centers and intermediate school districts.
   -- The data showed that significant differences ($p < .05$) were found in the categories of Student Services, Facilities and Equipment Management, and Business and Financial Management.

Recommendations

Based on the results of this study, the following recommendations are made.

For College and University Administrator Preparation Programs

1. It is recommended that colleges and universities in Michigan that prepare secondary school administrators develop a mechanism that will provide for the continual updating and revision of administrator preparation courses so as to respond to the identified roles and functions of a CTE administrator.

2. It is recommended that colleges and universities that prepare secondary school administrators formally implement a state-wide curriculum advisory committee for administrator preparation programs. Such an advisory committee would seek advice from practicing CTE administrators, from various educational settings, on how to integrate CTE roles/functions into administrator preparation programs.
3. It is recommended that the college/university-based administrator preparation programs consider and implement stronger field-based components to provide prospective CTE administrators with clinical administrative experiences that furnish a more realistic perspective of CTE leadership positions.
4. It is recommended that the college/university-based administrator preparation programs expand opportunities for continuing professional development for practicing CTE administrators, based on a needs-assessment model and the expectations resulting from educational trends.

For the Michigan Department of Education

1. It is recommended that the Michigan Department of Education and the State Board of Education implement a mechanism to allow for the involvement of practicing CTE administrators in periodic review and revision of the Michigan Standards of Quality for Administrator Preparation. Such a review would include

consideration of clinical or field-based experiences, such as an internship, as a condition of administrator certification.

2. It is recommended that the Michigan Department of Education provide professional development opportunities to CTE administrators that focus on the roles/functions of the position, particularly in the areas of Program Planning, Development and Evaluation; Instructional Management; Professional Relations and Self-Development; School-Community Relations; and Business and Financial Management.
3. It is recommended that the Michigan Department of Education implement a system of periodic program review for administrator preparation programs every five years. Such a review should include the involvement of practicing school administrators and faculty. Renewal of preparation programs should be based on this system of periodic program review.

For Local and Intermediate School Districts

1. It is recommended that local and intermediate school districts establish a continuing professional development program for CTE and other school administrators. Such a program would use a needs-assessment model and could focus on the nine major categories of roles/functions addressed in this study.
2. It is recommended that local and intermediate school districts, in cooperation with college/university administrator preparation programs, establish a partnership to provide clinical internships for prospective CTE administrators. Such

an internship would allow CTE administrator candidates to have field-based experiences in the major roles/functions of the position and bridge the gap between theory and practice.

For Future Research

In considering future research as a result of this study, the researcher makes the following recommendations:

1. It is recommended that a similar study be conducted in other states and then compared to the findings of this study.
2. It is recommended that there be an on-going university-based research effort to study the changing role expectations for CTE administrators, as well as their needs for professional development.
3. It is recommended that a comparison study be conducted to compare the results of this study with those of the parallel studies on elementary school principals (Kuckel, 1990) and secondary school principals (Austin, 1990).
4. It is recommended that a similar study be conducted of practicing Michigan vocational teachers in an effort to determine their current role expectations and their needs for continuing professional development.

Reflections

As the result of conducting this study, a number of issues or concerns surfaced that captured the attention of the researcher.

Some of the issues go beyond the scope of the study and others are directly related to the study.

First, the researcher asks, "What is an effective school?" Educational legislation calls for a core curriculum based on measurable student outcomes, accreditation and a school improvement plan. Educational research says it begins with an instructional leader who is "visionary" and can manage others. Business leaders say that effective schools prepare individuals for employment. They say that schools should provide students with basic skill training and skills to seek and hold a job, problem solve, communicate with others and work in teams. If 75% of all jobs in the year 2000 will require less than a baccalaureate degree, then why do high schools increase graduation requirements and encourage students to take additional years of science, mathematics, English and a foreign language in order to meet college entrance requirements?

In reality, the majority of students will continue their education beyond high school. However, only about 20-25% of them will receive a baccalaureate degree. In most cases, these students will obtain jobs to finance their postsecondary education and obtain work after completion. Why not have schools prepare <u>all</u> students with marketable job skills before leaving high school?

In order for students to gain marketable job skills, they must be able to access education for employment programs. With the increasing academic requirements, students are not able to enter these programs. This results in a declining enrollment in education for employment programs and the possibility of students leaving high

school without employable skills. Shouldn't high schools design programs which will enable students to gain both academic and employment-related skills?

What about the adult student who desires to learn a marketable job skill? The study indicated that directing adult and continuing education programs was not as important as other roles/functions for administrators of education for employment programs. These administrators did not perceive this job function as having a high need for continuing professional development. Who will serve the adult population?

There seems to be a mixed reaction from administrators of education for employment programs and state officials. Some individuals say that the responsibility lies with secondary career-technical education since they are preparing students for initial employment. Others feel that the community college occupational education programs should service these students since they are more age-appropriate. Still others feel that the retraining and training of adults should be conducted by adult and community education programs and various job training programs under the auspices of adult education.

The responsibility for various levels (or types) of education for employment programs is split among numerous departments and service areas within state government, i. e., adult education, secondary education, postsecondary education, vocational rehabilitation and corrections. This fragmented approach makes it

difficult to design programs which meet the needs of all students, including the adult population.

In past years, federal legislation provided funding to operate education for employment programs. It also provided funding for colleges and universities to develop preparation programs for aspiring career-technical education administrators and provided financial incentives to school districts who eventually hired these administrators for their education for employment programs. Based on certain criteria, school districts could receive salary reimbursement for eligible program administrators.

More recently, the funding for education for employment programs has decreased, and the vocational teacher education system within colleges and universities has weakened in the state of Michigan. This phenomenon can be attributed to several factors. First, the overall decline in K-12 student enrollments resulted in a need for fewer teachers. Colleges and universities cut back programs when fewer students enrolled in teacher education programs. It should be noted that the supply of career-technical education teachers has never been sufficient to supply the demand for some program areas. The public perception, however, was that there was an oversupply in all areas of teaching; thus, lower student enrollment resulted in vocational teacher education.

Career-technical education administrators face a similar problem when their administrative officials and boards of education do not identify education for employment programs as priority programs. As these administrators retire and are not replaced,

their job responsibilities are most likely subsumed by another administrator.

The study indicated that one-half of the practicing administrators may leave career-technical education over the next five years. Who will replace these administrators and what kind of educational background will they have? The data supported the general education administrative roles/functions as being important to practicing career-technical education administrators. The data also showed that over half of the respondents had graduate program focus in career-technical education, and the others had a graduate focus in some other area.

Is it necessary for colleges and universities to have a specialized preparation program for career-technical education administrators? Half of the respondents indicated that they spent 100% of their time administering education for employment programs, whereas the other half of the population was assigned job responsibilities in addition to career-technical education. Perhaps it makes more sense for colleges and universities to make a commitment to provide career-technical education administrative experiences within their general administrator preparation programs.

It also makes sense for state officials to have some type of criteria for determining adequacy of candidates who want to assume state reimbursable career-technical administrative positions. The study indicated that there were significant differences, when respondents were compared by educational background, tenure in position and educational setting, with regard to their perceptions

about the importance of their administrative positions. It should be noted that persons have an option to take a written test in lieu of educational qualifications in order to become reimbursed as a career-technical education administrator. There is no such test for persons seeking general education administrative positions. Could this imply that CTE administrator certification guidelines are more adaptable in meeting the needs of aspiring administrators?

Secondary career-technical education administrators have a variety of roles/functions to perform. These administrators can be found to hold positions in local school districts, in intermediate school districts and within area career-technical education centers. Does the importance of these roles/functions vary greatly within each level, in regards to the range in size of educational programs, number of students enrolled in programs or the number and roles/functions of other administrators within the educational setting. The study did not address these questions.

However, the study did support the need for preparation and continuing professional development of career-technical education administrators. Effective July 1, 1988, Public Act 163 requires administrators in Michigan public schools to attain certification as school administrators. An administrator's certificate is valid for five years and must be renewed every five years by earning college credit and/or State Board Continuing Education Units (SB-CEUs). Why shouldn't these opportunities center on the need for administrators to experience success as an administrator and improving their professional competence, rather than a legislative mandate? More

specificity is needed in order to design the nature of these activities. The researcher asks which professional development activities are to be delivered and in what way. Why couldn't business and industry assist administrators in continuing their professional development? It seems the ultimate task of today's educator is the development of human potential. Present leaders in career-technical education have a particular responsibility for developing highly motivated, able leaders with a sense of mission to improve the field and the skills to accomplish it.

APPENDICES

APPENDIX A

THE SURVEY INSTRUMENT

SURVEY QUESTIONNAIRE

PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT NEEDS
OF VOCATIONAL-TECHNICAL EDUCATION (VTE) ADMINISTRATORS

DIRECTIONS: Listed in this survey questionnaire are various roles/functions associated with the administration of vocational-technical education. The major headings for these are:

1) Program Planning, Development and Evaluation;
2) Instructional Management;
3) Student Services;
4) Personnel Management;
5) Staff Development;
6) Professional Relations and Self-Development;
7) School-Community Relations;
8) Facilities and Equipment Management; and
9) Business and Financial Management.

For each role descriptor, please provide two pieces of information: 1) **IMPORTANCE TO YOUR ROLE AS A VTE ADMINISTRATOR** (Please indicate how important this role/function is to your success as an administrator. Remember that we are looking for perceptions based on individual situations); and 2) **YOUR PERSONAL NEED FOR FURTHER PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT** (Please indicate the degree to which you feel a need for further continuing professional development in order to be as effective as you would like to be in each of the role/functions listed). **Circle only one response for each piece of information.**

	IMPORTANCE TO ROLE AS A VTE ADMINISTRATOR	NEED FOR FURTHER PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT
	1. Very Important 2. Moderately Important 3. Little Importance 4. Not Important 5. Not Part of Job/ Never Do It	1. High Need 2. 3. Moderate Need 4. 5. No Need

PROGRAM PLANNING, DEVELOPMENT AND EVALUATION		Circle only one answer.	Circle only one answer.
1.	Survey student interests.	1 2 3 4 5	1 2 3 4 5
2.	Analyze labor demand data.	1 2 3 4 5	1 2 3 4 5
3.	Direct course/program planning and development efforts.	1 2 3 4 5	1 2 3 4 5
4.	Implement strategies to promote non-traditional student enrollment.	1 2 3 4 5	1 2 3 4 5
5.	Prepare an annual plan for delivering vocational-technical education.	1 2 3 4 5	1 2 3 4 5

6.	Prepare a 3-5 year plan for overall program improvement.	1	2	3	4	5	1	2	3	4	5
7.	Comply with state and/or federal vocational education legislation.	1	2	3	4	5	1	2	3	4	5
8.	Comply with other job training legislation (such as JTPA).	1	2	3	4	5	1	2	3	4	5
9.	Conduct course/program reviews.	1	2	3	4	5	1	2	3	4	5
10.	Conduct student follow-up studies.	1	2	3	4	5	1	2	3	4	5
11.	Assess student competency and grading procedures.	1	2	3	4	5	1	2	3	4	5
12.	Recommend curriculum revisions.	1	2	3	4	5	1	2	3	4	5
13.	Write proposals for the funding of new programs and the improvement of existing programs.	1	2	3	4	5	1	2	3	4	5
14.	Contract instructional programs with business and industry.	1	2	3	4	5	1	2	3	4	5
15.	Develop supplemental/ remedial instructional programs to meet student needs.	1	2	3	4	5	1	2	3	4	5
INSTRUCTIONAL MANAGEMENT		Circle only <u>one</u> answer.					Circle only <u>one</u> answer.				
16.	Establish instructional program entry and completion requirements.	1	2	3	4	5	1	2	3	4	5
17.	Establish student rules and policies.	1	2	3	4	5	1	2	3	4	5
18.	Provide student discipline.	1	2	3	4	5	1	2	3	4	5
19.	Prepare a student handbook.	1	2	3	4	5	1	2	3	4	5
20.	Prepare a master schedule of course/program offerings.	1	2	3	4	5	1	2	3	4	5
21.	Guide staff in selecting and using effective instructional strategies.	1	2	3	4	5	1	2	3	4	5
22.	Direct the cooperative education program	1	2	3	4	5	1	2	3	4	5

23.	Guide staff in integrating and articulating the vocational-technical program with the total educational program.	1	2	3	4	5	1	2	3	4	5
24.	Promote the integration of vocational student organizational activities within the instructional program.	1	2	3	4	5	1	2	3	4	5
25.	Direct the apprenticeship and training program.	1	2	3	4	5	1	2	3	4	5
26.	Provide technical assistance in the development of programs for the special populations.	1	2	3	4	5	1	2	3	4	5
27.	Provide technical assistance in the development of customized training programs for business and industry.	1	2	3	4	5	1	2	3	4	5
28.	Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination.	1	2	3	4	5	1	2	3	4	5
29.	Direct the adult and continuing education programs.	1	2	3	4	5	1	2	3	4	5
30.	Guide the articulation of secondary and postsecondary vocational-technical education programs.	1	2	3	4	5	1	2	3	4	5
31.	Approve selection of instructional equipment.	1	2	3	4	5	1	2	3	4	5
32.	Approve selection of instructional supplies and materials.	1	2	3	4	5	1	2	3	4	5
STUDENT SERVICES		Circle only <u>one</u> answer.					Circle only <u>one</u> answer.				
33.	Design student recruitment materials.	1	2	3	4	5	1	2	3	4	5
34.	Oversee vocational guidance and testing services.	1	2	3	4	5	1	2	3	4	5
35.	Oversee student job placement services.	1	2	3	4	5	1	2	3	4	5
36.	Provide for a student record-keeping system.	1	2	3	4	5	1	2	3	4	5
37.	Comply with student labor laws and regulations.	1	2	3	4	5	1	2	3	4	5

38.	Conduct student orientation activities.	1 2 3 4 5	1 2 3 4 5
PERSONNEL MANAGEMENT		Circle only one answer.	Circle only one answer.
39.	Interpret labor contracts.	1 2 3 4 5	1 2 3 4 5
40.	Negotiate labor contracts.	1 2 3 4 5	1 2 3 4 5
41.	Assess program staffing requirements.	1 2 3 4 5	1 2 3 4 5
42.	Prepare job descriptions and requirements.	1 2 3 4 5	1 2 3 4 5
43.	Prepare a personnel handbook.	1 2 3 4 5	1 2 3 4 5
44.	Interview potential staff.	1 2 3 4 5	1 2 3 4 5
45.	Schedule staff work loads.	1 2 3 4 5	1 2 3 4 5
46.	Provide for a staff record-keeping system.	1 2 3 4 5	1 2 3 4 5
47.	Conduct staff meetings.	1 2 3 4 5	1 2 3 4 5
48.	Comply with licensing and certification regulations.	1 2 3 4 5	1 2 3 4 5
49.	Prepare bulletins and other communications designed to keep staff informed.	1 2 3 4 5	1 2 3 4 5
50.	Evaluate staff performance.	1 2 3 4 5	1 2 3 4 5
51.	Conduct staff orientation activities.	1 2 3 4 5	1 2 3 4 5
STAFF DEVELOPMENT		Circle only one answer.	Circle only one answer.
52.	Assess staff development needs.	1 2 3 4 5	1 2 3 4 5
53.	Conduct workshops and other inservice programs.	1 2 3 4 5	1 2 3 4 5
54.	Arrange for workshops and inservice programs.	1 2 3 4 5	1 2 3 4 5
55.	Arrange for staff exchanges with business and industry.	1 2 3 4 5	1 2 3 4 5
56.	Evaluate staff development programs.	1 2 3 4 5	1 2 3 4 5

PROFESSIONAL RELATIONS AND SELF-DEVELOPMENT		Circle only one answer.					Circle only one answer.				
57.	Develop effective interpersonal skills.	1	2	3	4	5	1	2	3	4	5
58.	Prepare testimony for public hearings.	1	2	3	4	5	1	2	3	4	5
59.	Participate in professional organizations related to vocational-technical education.	1	2	3	4	5	1	2	3	4	5
60.	Participate in professional organizations other than vocational-technical education.	1	2	3	4	5	1	2	3	4	5
61.	Participate in professional development activities for self-improvement.	1	2	3	4	5	1	2	3	4	5
62.	Model professional image through personal appearance and conduct.	1	2	3	4	5	1	2	3	4	5
63.	Participate in the development of legislative rules and regulations for vocational-technical education.	1	2	3	4	5	1	2	3	4	5
64.	Apply information from professional journals, reports and related materials for self-improvement.	1	2	3	4	5	1	2	3	4	5
65.	Apply time management techniques to personal work assignments.	1	2	3	4	5	1	2	3	4	5
66.	Develop cooperative problem solving and decision-making skills.	1	2	3	4	5	1	2	3	4	5
67.	Assess personal performance as an administrator.	1	2	3	4	5	1	2	3	4	5
SCHOOL-COMMUNITY RELATIONS		Circle only one answer.					Circle only one answer.				
68.	Develop a marketing plan for promoting vocational-technical education.	1	2	3	4	5	1	2	3	4	5
69.	Provide technical assistance in the establishment of advisory committees.	1	2	3	4	5	1	2	3	4	5
70.	Participate in community activities.	1	2	3	4	5	1	2	3	4	5

71.	Coordinate vocational-technical education programs with other community job training programs (such as JTPA).	1 2 3 4 5	1 2 3 4 5
72.	Involve community leaders (political and nonpolitical) in school programs and activities.	1 2 3 4 5	1 2 3 4 5
73.	Conduct recognition programs for students, staff and community supporters.	1 2 3 4 5	1 2 3 4 5
74.	Make informational presentations to the public.	1 2 3 4 5	1 2 3 4 5
75.	Plan for exhibits and displays.	1 2 3 4 5	1 2 3 4 5
76.	Write news releases for school and area media.	1 2 3 4 5	1 2 3 4 5
77.	Conduct open house activities.	1 2 3 4 5	1 2 3 4 5
FACILITIES AND EQUIPMENT		Circle only <u>one</u> answer.	Circle only <u>one</u> answer.
78.	Plan space requirements for programs.	1 2 3 4 5	1 2 3 4 5
79.	Submit building and equipment specifications.	1 2 3 4 5	1 2 3 4 5
80.	Analyze building and contract bids.	1 2 3 4 5	1 2 3 4 5
81.	Oversee architectural planning.	1 2 3 4 5	1 2 3 4 5
82.	Develop a plan for repair and maintenance of equipment and facilities.	1 2 3 4 5	1 2 3 4 5
83.	Maintain an equipment and supply inventory system.	1 2 3 4 5	1 2 3 4 5
84.	Establish a long-range plan for acquisition of new equipment.	1 2 3 4 5	1 2 3 4 5
85.	Comply with health and safety laws and regulations.	1 2 3 4 5	1 2 3 4 5
86.	Direct a safety awareness program.	1 2 3 4 5	1 2 3 4 5
87.	Establish emergency plans (such as fire and disaster).	1 2 3 4 5	1 2 3 4 5
88.	Schedule facility use by community members.	1 2 3 4 5	1 2 3 4 5

89.	Prepare renovation and alteration plans.	1 2 3 4 5	1 2 3 4 5
BUSINESS AND FINANCIAL MANAGEMENT		Circle only one answer.	Circle only one answer.
90.	Establish purchasing and payment procedures.	1 2 3 4 5	1 2 3 4 5
91.	Establish receiving and shipping procedures.	1 2 3 4 5	1 2 3 4 5
92.	Prepare budgets.	1 2 3 4 5	1 2 3 4 5
93.	Administer budgets.	1 2 3 4 5	1 2 3 4 5
94.	Adopt an appropriate financial accounting system.	1 2 3 4 5	1 2 3 4 5
95.	Analyze the cost of operating various instructional programs.	1 2 3 4 5	1 2 3 4 5
96.	Locate sources of funds for program development and operation.	1 2 3 4 5	1 2 3 4 5
97.	Approve requisitions and work orders.	1 2 3 4 5	1 2 3 4 5
98.	Respond to business correspondence.	1 2 3 4 5	1 2 3 4 5
99.	Prepare local, state and federal reports.	1 2 3 4 5	1 2 3 4 5

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100. What is your gender?

a. ____ male
b. ____ female

101. What is your age group?

a. ____ under 30 years of age
b. ____ 31 to 40 years of age
c. ____ 41 to 50 years of age
d. ____ 51 to 55 years of age
e. ____ over 55 years of age

102. How long have you been an administrator of vocational-technical education programs?

a. ____ 0 - 5 years
b. ____ 6 - 10 years
c. ____ 11 - 15 years
d. ____ 16 - 20 years
e. ____ over 20 years

103. At present, from what type of educational setting are you employed?

a. ____ local school district/comprehensive high school
b. ____ area vocational center
c. ____ intermediate school district
d. ____ other

104. Is the educational setting considered to be

a. ____ rural
b. ____ rural - suburban
c. ____ suburban
d. ____ suburban - urban
e. ____ urban

105. What percentage of your time is spent administering vocational-technical education programs?

a. ____ 100 percent
b. ____ 75 percent
c. ____ 50 percent
d. ____ 25 percent
e. ____ less than 25 percent

106. How many students were enrolled in state-approved wage-earning and non wage-earning (consumer home economics) courses/programs last school year?

a. ____ less than 250 students
b. ____ 251 - 500 students
c. ____ 501 - 750 students
d. ____ 751 - 1000 students
e. ____ more than 1000 students

107. What type of administrator certification does your position require?

a. ____ secondary administrator certification
b. ____ central office administrator certification
c. ____ none

108. At present, what is the highest level of education received?

a. ____ baccalaureate degree
b. ____ masters degree
c. ____ masters +30 degree
d. ____ education specialist degree
e. ____ doctorate degree

109. What was your major focus of study in your undergraduate degree program?

a. ____ general education
b. ____ vocational education
c. ____ special education
d. ____ other

110. What was your major focus of study in your graduate degree program?

a. ____ general education administration
b. ____ vocational education administration
c. ____ special education administration
d. ____ guidance and counseling
e. ____ other

111. How likely is it that you will retire, or leave vocational-technical education administration, within the next five years?

a. ____ very likely
b. ____ possibly
c. ____ not likely

112. If your response to #111 is "very likely", please indicate the year you are most likely to retire or leave?

a. ____ 1992
b. ____ 1993
c. ____ 1994
d. ____ 1995
e. ____ 1996

THANK YOU FOR YOUR SUPPORT!!! Please mail your completed survey **before** December 10, 1991.

APPENDIX B

INITIAL LETTER TO RESPONDENTS

AND NUMBERED POSTCARD

November 25, 1991

Dear Colleague:

You have been selected to participate in a research study that I am conducting in order to better understand the perceptions of practicing Michigan vocational-technical education administrators about the range and importance of selected roles/functions; and personal needs for further preparation and continuing professional development.

As the present cadre of vocational-technical education administrators changes, as limited new positions open and as the current roles/functions are redefined, it is critical that information exist for State policy makers, those providing direction for college and university school administrator preparation programs, professional organizations of vocational and other school administrators, and local school district leaders to design and implement effective preparation and continuing professional development programs.

To date, a recent study has not been conducted to identify the roles/functions of practicing vocational-technical education administrators, nor has information been collected on their continuing professional development needs. It is anticipated that the findings and analysis from the study will be useful in supporting the suggested criteria for administrator certification, reimbursement as a vocational administrator and increase the awareness of individuals who are responsible for recruiting trained vocational-technical education administrators.

Although participation in this study is voluntary, I would hope that you would consider taking approximately 40-45 minutes of your valuable time within the next week to complete the survey instrument.

Your individual responses to this survey will remain confidential. Please do not sign your survey. A postcard is enclosed for you to mail separately, but at the same time you mail your completed survey instrument. This procedure will assist me in knowing that your survey has been returned and therefore, I will not need to send you a follow-up letter.

Please return the survey instrument in the enclosed, pre-addressed stamped envelope **before December 10, 1991**. If you wish to discuss this study with me, I can be reached at my office (313) 693-5460, or at my home (313) 650-2732. Thank you, in advance, for your consideration and cooperation.

Sincerely,

Janet M. Burns, Ph.D. Candidate
Adult and Continuing Education
Michigan State University

Enclosures

No.

Please mail this postcard when you have completed and returned your survey instrument. By doing so, a follow-up reminder letter will not be sent to you.

Again, thanks for your assistance.

Janet M. Burns

APPENDIX C

FOLLOW-UP LETTER TO NON-RESPONDENTS

December 10, 1991

Dear Colleague:

A few weeks ago, you should have received a letter requesting that you voluntarily participate in a study to better understand the perceptions of practicing vocational-technical education administrators about the range and importance of selected roles/functions; and personal needs for further preparation and continuing professional development.

If you have not had the opportunity to complete the survey instrument, please take approximately 40-45 minutes of uninterrupted time this week to complete and return the survey instrument. Your individual responses will remain strictly confidential.

If you have already returned your survey instrument, I thank you for your efforts and also your support for this research project.

Should you want to discuss the study with me, I can be reached at my office (313) 693-5460, or at home (313) 650-2732.

Thank you for your cooperation.

Sincerely,

Janet M. Burns, Ph.D. Candidate
Adult and Continuing Education
Michigan State University

APPENDIX D

RANK-ORDERED LISTING OF IMPORTANT ROLES/FUNCTIONS

AS PERCEIVED BY CTE ADMINISTRATORS

Rank-Ordered Listing of Important Roles/Functions
as Perceived by Career-Technical Education Administrators

Rank	Item #	Item Content	N	X	SD
I-1	3	Direct course/program planning and development efforts	148	1.39	0.81
I-2	93	Administer budgets	148	1.43	0.93
I-3	92	Prepare budgets	148	1.44	0.91
I-4	62	Model professional image through personal appearance and conduct	148	1.50	0.97
I-5	23	Guide staff in integrating and articulating the vocational-technical education program with the total educational program	148	1.56	1.06
I-6	66	Develop cooperative problem solving and decision-making skills	148	1.57	0.91
I-7	12	Recommend curriculum revisions	148	1.59	0.91
I-7	67	Assess personal performance as an administrator	148	1.59	0.98
I-9	7	Comply with state and/or federal vocational education legislation	148	1.60	0.91
I-10	57	Develop effective interpersonal skills	148	1.62	0.99
I-11	99	Prepare local, state and federal reports	148	1.64	1.15
I-11	61	Participate in professional development activities for self-improvement	148	1.64	0.91

I-13	65	Apply time management techniques to personal work assignments	148	1.66	0.95
I-14	44	Interview potential staff	148	1.68	1.18
I-15	59	Participate in professional organizations related to vocational-technical education	148	1.71	0.94
I-16	74	Make informational presentations to the public	148	1.74	0.96
I-16	30	Guide the articulation of secondary and postsecondary vocational-technical education programs	148	1.74	1.05
I-18	54	Arrange for workshops and inservice programs	148	1.75	1.15
I-19	96	Locate sources of funds for program development and operation	148	1.76	1.18
I-20	98	Respond to business correspondence	148	1.78	1.01
I-21	5	Prepare an annual plan for delivering vocational-technical education	148	1.79	1.03
I-21	52	Assess staff development needs	148	1.79	1.12
I-21	70	Participate in community activities	148	1.79	1.03
I-24	6	Prepare a 3-5 year plan for overall program improvement	148	1.80	0.97
I-24	48	Comply with licensing and certification regulations	148	1.80	1.18
I-26	2	Analyze labor demand data	148	1.82	1.07
I-26	64	Apply information from professional journals, reports and related materials for self-improvement	148	1.82	0.89

I-26	72	Involve community leaders (political and nonpolitical) in school programs and activities	148	1.82	1.05
I-29	21	Guide staff in selecting and using effective instructional strategies	148	1.83	1.06
I-30	9	Conduct course/program reviews	148	1.84	0.87
I-30	13	Write proposals for the funding of new programs and the improvement of existing programs	148	1.84	1.10
I-32	69	Provide technical assistance in the establishment of advisory committees	148	1.84	1.00
I-33	50	Evaluate staff performance	148	1.85	1.41
I-33	85	Comply with health and safety laws and regulations	148	1.85	1.19
I-35	1	Survey student interests	148	1.86	0.99
I-35	31	Approve selection of instructional equipment	148	1.86	1.10
I-37	47	Conduct staff meetings	148	1.87	1.22
I-38	95	Analyze the cost of operating various instructional programs	148	1.91	1.18
I-39	84	Establish a long-range plan for acquisition of new equipment	148	1.92	1.18
I-40	68	Develop a marketing plan for promoting vocational-technical education	148	1.93	1.12
I-41	73	Conduct recognition programs for students, staff and community supporters	148	1.94	1.06

I-42	60	Participate in professional organizations other than vocational-technical education	148	1.95	0.99
I-43	10	Conduct student follow-up studies	148	1.96	1.18
I-44	49	Prepare bulletins and other communications designed to keep staff informed	148	1.97	1.14
I-44	97	Approve requisitions and work orders	148	1.97	1.37
I-44	33	Design student recruitment materials	148	1.97	1.15
I-47	11	Assess student competency and grading procedures	148	2.00	1.14
I-48	41	Assess program staffing requirements	148	2.04	1.28
I-48	55	Arrange for staff exchanges with business and industry	148	2.04	1.22
I-50	53	Conduct workshops and other inservice programs	148	2.07	1.32
I-50	42	Prepare job descriptions and requirements	148	2.07	1.24
I-50	78	Plan space requirements for programs	148	2.07	1.27
I-53	4	Implement strategies to promote non-traditional student enrollment	148	2.08	0.85
I-54	32	Approve selection of instructional supplies and materials	148	2.10	1.28
I-55	63	Participate in the development of of legislative rules and regulations for vocational-technical education	148	2.11	1.18
I-55	56	Evaluate staff development programs	148	2.11	1.28

I-57	37	Comply with student labor laws and	148	2.13	1.37
I-58	76	Write news releases for school and area media	148	2.15	1.10
I-59	51	Conduct staff orientation activities	148	2.18	1.40
I-60	71	Coordinate vocational-technical education programs with other community job training programs (such as JTPA)	148	2.19	1.19
I-61	26	Provide technical assistance in the development of programs for the special populations	148	2.22	1.18
I-61	83	Maintain an equipment and supply inventory system	148	2.22	1.34
I-63	14	Contract instructional programs with business and industry	148	2.24	1.34
I-63	77	Conduct open house activities	148	2.24	1.30
I-65	82	Develop a plan for repair and maintenance of equipment and facilities	148	2.25	1.35
I-66	8	Comply with other job training legislation (such as JTPA)	148	2.28	1.07
I-67	86	Direct a safety awareness program	148	2.29	1.39
I-68	79	Submit building and equipment specifications	148	2.30	1.44
I-69	75	Plan for exhibits and displays	148	2.31	1.14
I-70	16	Establish instructional program entry and completion requirements	148	2.36	1.13
I-71	89	Prepare renovation and alteration plans	148	2.39	1.38

I-72	15	Develop supplemental/remedial instructional programs to meet student needs	148	2.41	1.28
I-73	35	Oversee student job placement services	148	2.44	1.37
I-74	24	Promote the integration of vocational-technical program with the total education program	148	2.45	1.31
I-75	28	Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination	148	2.46	1.17
I-76	22	Direct the cooperative education program	148	2.47	1.42
I-77	45	Schedule staff work loads	148	2.49	1.47
I-78	36	Provide for a student recordkeeping system	148	2.51	1.46
I-79	39	Interpret labor contracts	148	2.53	1.53
I-80	34	Oversee vocational guidance and testing services	148	2.62	1.37
I-81	94	Adopt an appropriate accounting system	148	2.63	1.60
I-82	38	Conduct student orientation activities	148	2.66	1.39
I-83	80	Analyze building and contract bids	148	2.68	1.50
I-83	25	Direct the apprenticeship and training program	148	2.68	1.49
I-85	58	Prepare testimony for public hearings	148	2.70	1.24

I-86	87	Establish emergency plans (such as fire and disaster)	148	2.74	1.65
I-87	27	Provide technical assistance in the development of customized training programs for business and industry	148	2.75	1.51
I-88	90	Establish purchasing and payment procedures	148	2.77	1.61
I-89	17	Establish student rules and discipline	148	2.83	1.41
I-90	46	Provide for a staff recordkeeping system	148	2.84	1.53
I-91	81	Oversee architectural planning	148	2.85	1.57
I-92	20	Prepare a master schedule of course/ program offerings	148	2.96	1.55
I-93	19	Prepare a student handbook	148	2.99	1.49
I-94	43	Prepare a personnel handbook	148	3.09	1.53
I-95	18	Provide student discipline	148	3.19	1.50
I-95	91	Establish receiving and shipping procedures	148	3.19	1.55
I-97	88	Schedule facility use by community members	148	3.26	1.63
I-98	40	Negotiate labor contracts	148	3.32	1.52
I-99	29	Direct the adult and continuing education programs	148	3.43	1.51

APPENDIX E

RANK-ORDERED LISTING OF PERCEIVED NEEDS FOR FURTHER PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT BY CTE ADMINISTRATORS

Rank-Ordered Listing of Perceived Needs for
Further Preparation and Continuing Professional Development
by Career-Technical Education Administrators

Rank	Item #	Item Content	N	X	SD
N-1	23	Guide staff in integrating and articulating the vocational-technical program with the total educational program	148	1.98	1.21
N-2	96	Locate sources of funds for program development and operation	148	2.26	1.28
N-2	7	Comply with state and/or federal vocational education legislation	148	2.28	1.27
N-4	30	Guide the articulation of secondary and postsecondary vocational-technical education programs	148	2.34	1.34
N-5	13	Write proposals for the funding of new programs and the improvement of existing programs	148	2.36	1.35
N-6	68	Develop a marketing plan for promoting vocational-technical education	148	2.37	1.22
N-7	67	Assess personal performance as an administrator	148	2.40	1.30
N-8	6	Prepare a 3-5 year plan for overall program improvement	148	2.41	1.21
N-9	66	Develop cooperative problem solving and decision-making skills	148	2.44	1.41

N-10	3	Direct course/program planning and development efforts	148	2.47	1.24
N-10	21	Guide staff in selecting and using effective instructional strategies	148	2.47	1.33
N-12	12	Recommend curriculum revisions	148	2.49	1.26
N-13	63	Participate in the development of legislative rules and regulations for vocational-technical education	148	2.55	1.31
N-13	55	Arrange for staff exchanges with business and industry	148	2.55	1.36
N-15	65	Apply time management techniques to personal work assignments	148	2.59	1.27
N-15	95	Analyze the cost of operating various instructional programs	148	2.59	1.36
N-15	99	Prepare local, state and federal reports	148	2.59	1.45
N-18	33	Design student recruitment materials	148	2.61	1.33
N-19	92	Prepare budgets	148	2.64	1.38
N-20	14	Contract instructional programs with business and industry	148	2.65	1.42
N-20	50	Evaluate staff performance	148	2.65	1.49
N-22	72	Involve community leaders (political and nonpolitical) in school programs and activities	148	2.66	1.22
N-23	11	Participate in professional development activities for self-improvement	148	2.66	1.32
N-23	57	Develop effective interpersonal skills	148	2.66	1.37

N-25	25	Direct the apprenticeship and training program	148	2.70	1.47
N-26	9	Conduct course/program reviews	148	2.71	1.25
N-27	5	Prepare an annual plan for delivering vocational-technical education	148	2.72	1.35
N-28	85	Comply with health and safety laws and regulations	148	2.73	1.36
N-29	93	Administer budgets	148	2.74	1.35
N-29	2	Analyze labor demand data	148	2.74	1.28
N-29	52	Assess staff development needs	148	2.74	1.37
N-32	53	Conduct workshops and other inservice programs	148	2.78	1.36
N-33	54	Arrange for workshops and inservice programs	148	2.81	1.40
N-34	26	Provide technical assistance in the development of programs for the special populations	148	2.82	1.22
N-34	71	Coordinate vocational-technical education programs with other community job training programs (such as JTPA)	148	2.82	1.29
N-36	61	Participate in professional development activities for self-improvement	148	2.84	1.38
N-36	84	Establish a long-range plan for acquisition of new equipment	148	2.84	1.39
N-38	27	Provide technical assistance in the development of customized training programs for business and industry	148	2.86	1.45

N-39	73	Conduct recognition programs for students, staff and community supporters	148	2.89	1.20
N-40	8	Comply with other job training legislation (such as JTPA)	148	2.90	1.23
N-40	76	Write news releases for school and area media	148	2.90	1.34
N-42	15	Develop supplemental/remedial instructional programs to meet student needs	148	2.91	1.30
N-42	4	Implement strategies to promote non-traditional student enrollment	148	2.91	1.11
N-44	56	Evaluate staff development programs	148	2.92	1.37
N-45	69	Provide technical assistance in the establishment of advisory committees	148	2.93	1.28
N-46	31	Approve selection of instructional equipment	148	2.97	1.33
N-47	16	Establish instructional program entry and completion requirements	148	2.99	1.31
N-47	37	Comply with student labor laws and	148	2.99	1.41
N-47	41	Assess program staffing requirements	148	2.99	1.35
N-47	28	Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination	148	2.99	1.13
N-51	48	Comply with licensing and certification regulations	148	3.00	1.35
N-51	79	Submit building and equipment specifications	148	3.00	1.44

N-51	86	Direct a safety awareness program	148	3.00	1.39
N-54	74	Make informational presentations to the public	148	3.01	1.29
N-54	78	Plan space requirements for programs	148	3.01	1.40
N-56	34	Oversee vocational guidance and testing services	148	3.03	1.36
N-56	44	Interview potential staff	148	3.03	1.44
N-56	89	Prepare renovation and alteration plans	148	3.03	1.53
N-56	82	Develop a plan for repair and maintenance of equipment and facilities	148	3.03	1.37
N-60	64	Apply information from professional journals, reports and related materials for self-improvement	148	3.05	1.17
N-60	58	Prepare testimony for public hearings	148	3.05	1.36
N-62	24	Promote the integration of vocational-technical program with the total education program	148	3.08	1.35
N-63	42	Prepare job descriptions and requirements	148	3.11	1.38
N-64	39	Interpret labor contracts	148	3.12	1.43
N-65	36	Provide for a student recordkeeping system	148	3.13	1.37
N-65	51	Conduct staff orientation activities	148	3.13	1.43
N-67	94	Adopt an appropriate accounting system	148	3.14	1.55

N-68	49	Prepare bulletins and other communications designed to keep staff informed	148	3.16	1.35
N-69	83	Maintain an equipment and supply inventory system	148	3.20	1.44
N-70	10	Conduct student follow-up studies	148	3.22	1.26
N-70	35	Oversee job placement services	148	3.22	1.25
N-72	59	Participate in professional organizations related to vocational-technical education	148	3.23	1.45
N-73	32	Approve selection of instructional supplies and materials	148	3.24	1.35
N-73	47	Conduct staff meetings	148	3.24	1.34
N-73	75	Plan for exhibits and displays	148	3.24	1.22
N-76	80	Analyze building and contract bids	148	3.27	1.46
N-77	1	Survey student interests	148	3.32	1.20
N-77	62	Model professional image through personal appearance and conduct	148	3.32	1.38
N-79	40	Negotiate labor contracts	148	3.36	1.55
N-80	98	Respond to business correspondence	148	3.38	1.29
N-81	22	Direct the cooperative education program	148	3.39	1.34
N-81	70	Participate in community activities	148	3.39	1.25
N-81	87	Establish emergency plans (such as fire and disaster)	148	3.39	1.51

N-84	60	Participate in professional organizations other than vocational-technical education	148	3.40	1.31
N-85	77	Conduct open house activities	148	3.41	1.29
N-86	81	Oversee architectural planning	148	3.44	1.48
N-87	90	Establish purchasing and payment procedures	148	3.45	1.50
N-88	45	Schedule staff work loads	148	3.47	1.38
N-89	43	Prepare a personnel handbook	148	3.48	1.41
N-90	38	Conduct student orientation activities	148	3.49	1.26
N-91	97	Approve requisitions and work orders	148	3.51	1.38
N-92	46	Provide for a staff recordkeeping system	148	3.57	1.32
N-93	17	Establish student rules and discipline	148	3.59	1.27
N-93	19	Prepare a student handbook	148	3.59	1.34
N-95	29	Direct the adult and continuing education programs	148	3.60	1.47
N-96	20	Prepare a master schedule of course/ program offerings	148	3.72	1.37
N-97	18	Provide student discipline	148	3.78	1.26
N-98	91	Establish receiving and shipping procedures	148	3.81	1.35
N-99	88	Schedule facility use by community members	148	3.85	1.34

APPENDIX F

COMPARISON LISTING OF IMPORTANT ROLES/FUNCTIONS AND PERCEIVED NEEDS FOR FURTHER PREPARATION AND CONTINUING PROFESSIONAL DEVELOPMENT BY CTE ADMINISTRATORS

Comparison Listing of Important Roles/Functions
and Perceived Needs for Further Preparation
and Continuing Professional Development
by Career-Technical Education Administrators

n = 148

Item Number	Category/ Item Content	Imp. Mean	Imp. Rank	Need Mean	Need Rank
	PROGRAM PLANNING, DEVELOPMENT AND EVALUATION				
1.	Survey student interests	1.86	35	3.32	77
2.	Analyze labor demand data	1.82	26	2.74	29
3.	Direct course/program planning and development efforts	1.39	3	2.47	10
4.	Implement strategies to promote non-traditional student enrollment	2.08	53	2.91	42
5.	Prepare an annual plan for delivering vocational-technical education	1.79	21	2.72	27
6.	Prepare a 3-5 year plan for overall program improvement	1.80	24	2.41	8
7.	Comply with state and/or federal vocational education legislation	1.60	9	2.28	2
8.	Comply with other job training legislation (such as JTPA)	2.28	66	2.90	40
9.	Conduct course/program reviews	1.84	30	2.71	26
10.	Conduct student follow-up studies	1.96	43	3.22	70

11.	Assess student competency and grading procedures	2.00	47	2.66	23
12.	Recommend curriculum revisions	1.59	7	2.49	12
13.	Write proposals for the funding of new programs and the improvement of existing programs	1.84	30	2.36	5
14.	Contract instructional programs with business and industry	2.24	63	2.65	20
15.	Develop supplemental remedial instructional programs to meet student needs	2.41	72	2.91	42
	INSTRUCTIONAL MANAGEMENT				
16.	Establish instructional program entry and completion requirements	2.36	70	2.99	47
17.	Establish student rules and policies	2.83	89	3.59	93
18.	Provide student discipline	3.19	95	3.78	97
19.	Prepare a student handbook	2.99	93	3.59	93
20.	Prepare a master schedule of course/ program offerings	2.96	92	3.72	96
21.	Guide staff in selecting and using effective instructional strategies	1.83	29	2.47	10
22.	Direct the cooperative education program	2.47	76	3.39	81
23.	Guide staff in integrating and articulating the vocational-technical program with the total educational program	1.56	5	1.98	1

24.	Promote the integration of vocational student organizational activities within the instructional program	2.45	74	3.08	62
25.	Direct the apprenticeship and training program	2.68	83	2.70	25
26.	Provide technical assistance in the development of programs for the special populations	2.22	61	2.82	34
27.	Provide technical assistance in the development of customized training programs for business and industry	2.75	87	2.86	38
28.	Provide technical assistance in the development of programs to eliminate sex bias, stereotyping and discrimination	2.46	75	2.99	47
29.	Direct the adult and continuing education program	3.43	99	3.60	95
30.	Guide the articulation of secondary and postsecondary vocational-technical education programs	1.74	16	2.34	4
31.	Approve selection of instructional equipment	1.86	35	2.97	46
32.	Approve selection of instructional supplies and materials	2.10	54	3.24	73
	STUDENT SERVICES				
33.	Develop student recruitment materials	1.97	44	2.61	18
34.	Oversee vocational guidance and testing services	2.62	80	3.03	56
35.	Oversee student job placement services	2.44	73	3.22	70

36.	Provide for a student recordkeeping system	2.51	78	3.13	65
37.	Comply with student labor laws and regulations	2.13	57	2.99	47
38.	Conduct student orientation activities	2.66	82	3.49	90
	PERSONNEL MANAGEMENT				
39.	Interpret labor contracts	2.53	79	3.12	64
40.	Negotiate labor contracts	3.32	98	3.36	79
41.	Assess program staffing requirements	2.04	48	2.99	47
42.	Prepare job descriptions and requirements	2.07	50	3.11	63
43.	Prepare a personnel handbook	3.09	94	3.48	89
44.	Interview potential staff	1.68	14	3.03	56
45.	Schedule staff work loads	2.49	77	3.47	88
46.	Provide for a staff recordkeeping system	2.84	90	3.57	92
47.	Conduct staff meetings	1.87	37	3.24	73
48.	Comply with licensing and certification requirements	1.80	24	3.00	51
49.	Prepare bulletins and other communications to keep staff informed	1.97	44	3.16	68
50.	Evaluate staff performance	1.85	33	2.65	20
51.	Conduct staff orientation activities	2.18	59	3.13	65

	STAFF DEVELOPMENT				
52.	Assess staff development needs	1.79	21	2.74	29
53.	Conduct workshops and other inservice programs	2.07	50	2.78	32
54.	Arrange for workshops and inservice programs	1.75	18	2.81	33
55.	Arrange for staff exchanges with business and industry	2.04	48	2.55	13
56.	Evaluate staff development programs	2.11	55	2.92	44
	PROFESSIONAL RELATIONS AND SELF-DEVELOPMENT				
57.	Develop effective interpersonal skills	1.62	10	2.66	23
58.	Prepare testimony for public hearings	2.70	85	3.05	60
59.	Participate in professional organizations related to vocational-technical education	1.71	15	3.23	72
60.	Participate in professional organizations other than vocational-technical education	1.95	42	3.40	84
61.	Participate in professional development activities for self-improvement	1.64	11	2.84	36
62.	Model professional image through personal appearance and conduct	1.50	4	3.32	77
63.	Participate in the development of legislative rules and regulations for vocational-technical education	2.11	55	2.55	13
64.	Apply information from professional journals, reports and related materials for self-improvement	1.82	26	3.05	60

65.	Apply time management techniques to personal work assignments	1.66	13	2.59	15
66.	Develop cooperative problem solving and decision-making skills	1.57	6	2.44	9
67.	Assess personal performance as an administrator	1.59	7	2.40	7
	SCHOOL-COMMUNITY RELATIONS				
68.	Develop a marketing plan for promoting vocational-technical education	1.93	40	2.37	6
69.	Provide technical assistance in the establishment of advisory committees	1.84	32	2.93	45
70.	Participate in community activities	1.79	21	3.39	81
71.	Coordinate vocational-technical education programs with other community job training programs (such as JTPA)	2.19	60	2.82	34
72.	Involve community leaders (political and nonpolitical) in school programs and activities	1.82	26	2.66	22
73.	Conduct recognition programs for students, staff and community supporters	1.94	41	2.89	39
74.	Make informational presentations to the public	1.74	16	3.01	54
75.	Plan for exhibits and displays	2.31	69	3.24	73
76.	Write news releases for school area media	2.15	58	2.90	40
77.	Conduct open house activities	2.24	63	3.41	85

	FACILITIES AND EQUIPMENT MANAGEMENT				
78.	Plan space requirements for programs	2.07	50	3.01	54
79.	Submit building and equipment specifications	2.30	68	3.00	51
80.	Analyze building and contract bids	2.68	83	3.27	76
81.	Oversee architectural planning	2.85	91	3.44	86
82.	Develop a plan for repair and maintenance of equipment and facilities	2.25	65	3.03	56
83.	Maintain an equipment and supply inventory system	2.22	61	3.20	69
84.	Establish a long-range plan for acquisition of new equipment	1.92	39	2.84	36
85.	Comply with health and safety laws and regulations	1.85	33	2.73	28
86.	Direct a safety awareness program	2.29	67	3.00	51
87.	Establish emergency plans (such as fire and disaster)	2.74	86	3.39	81
88.	Schedule facility use by community members	3.26	97	3.85	99
89.	Prepare renovation and alternation plans	2.39	71	3.03	56
	BUSINESS AND FINANCIAL MANAGEMENT				
90.	Establish purchasing and payment procedures	2.77	88	3.45	87
91.	Establish receiving and shipping procedures	3.19	95	3.81	98

92.	Prepare budgets	1.44	3	2.64	19
93.	Administer budgets	1.43	2	2.74	29
94.	Adopt an appropriate financial accounting system	2.63	81	3.14	67
95.	Analyze the cost of operating various instructional programs	1.91	38	2.59	15
96.	Locate sources of funds for program development and operation	1.76	19	2.26	2
97.	Approve requisitions and work orders	1.97	44	3.51	91
98.	Respond to business correspondence	1.78	20	3.38	80
99.	Prepare local, state and federal reports	1.64	11	2.59	15

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