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ABSTRACT

FACTORS ASSOCIATED WITH PARTICIPATION BY MICHIGAN SCHOOL SUPERINTENDENTS IN PROGRAMS AUTHORIZED UNDER THE PROVISIONS OF THE VOCATIONAL EDUCATION ACT OF 1963

by William Frank Pierce

Purposes. The major purpose of this study was to identify some of the variables associated with the decisions of school superintendents to submit applications for funding under the provisions of the Vocational Education Act of 1963. To further delineate the variables associated with the decision to apply for funds, the following three subpurposes were formulated to identify certain factors which could be attributed to: (1) the superintendent's professional preparation and experience, (2) the superintendent's immediate professional environment, and, (3) the operational procedures of the Division of Vocational Education.

Method. A questionnaire was developed and submitted to 200 randomly selected public school superintendents. One hundred of the superintendents had applied for funds available under the provisions of the Vocational Education Act of 1963 during fiscal year 1965 and/or 1966. The remaining 100 had not applied for funds during either of the two years. Returns were received from seventy-one of the

group who applied for funds and fifty-eight from those who did not apply.

In Part One of the questionnaire, each of the respondents was asked to check the answer which best described him in terms of his academic preparation, undergraduate major and teaching experience, and length of experience as a teacher and a superintendent. In Part Two, the respondent expressed his opinion, belief or attitude toward each of sixty-seven statements relating to the administration of vocational education under the provisions of the new Act. In Part Three of the questionnaire, the superintendents responded to each of forty-three statements designed to measure their understanding of the provisions of the Act.

Chi square distribution was applied to the differences in responses by the two groups to determine whether statistical significance existed at the .05 level.

Major Findings. For those variables related to the superintendent's professional preparation and experience, it was found that: (1) superintendents who applied for funds possessed a significantly higher level of academic preparation, and, (2) the superintendent's undergraduate major, types or length of teaching experience, length of experience as a superintendent or length of employment in fields other than education had no significant relation to the decision to apply for funds.

For those variables related to the superintendent's

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immediate professional environment it was found that superintendents who attended regional informational conferences conducted by the Division of Vocational Education were more likely to apply for funds.

Although no statistical significance resulted for most variables related to the operational procedures of the Division of Vocational Education, it was found that superintendents who applied were inclined to feel to a significantly greater degree that vocational training should be offered as a cluster of occupations rather than as a single skill.

Most of the superintendents in both groups: (1) felt the matching fund requirement was a serious obstacle to program development, (2) expressed a need for additional state aid to satisfy the matching fund requirement, (3) possessed an inadequate understanding of vocational teacher certification requirements, (4) were dissatisfied with the funding priorities established by the Division of Vocational Education, (5) favored receipt of additional printed guides and guidelines and more consultative assistance from the Division of Vocational Education, and, (6) revealed limited concern over the possibility of increased federal and/or state control resulting from the Act.

Superintendents who applied were significantly more knowledgeable of the provisions of the Act relating to Vocational Agriculture, Vocational Homemaking, Trade and Industrial Education and the Work-Study program.

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SCHOOL SUPERINTENDENTS IN PROGRAMS AUTHORIZED
UNDER THE PROVISIONS OF THE VOCATIONAL
EDUCATION ACT OF 1963

By

William Frank Pierce

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Finally, deep and lasting gratitude is expressed to the author's family. To his son, Stuart, who understood why as much time could not be spent with him as both he and the author would have liked, and to his wife, Darlene, without whose patience, encouragement, understanding and assistance this study could never have been completed.

DEDICATION

This work is dedicated to my wife,
Darlene S. Pierce, whose unfailing encouragement and whose willingness to sacrifice so many things, both large and small, have made her the embodiment of everything a wife should be.

William F. Pierce

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CHAPTER I

INTRODUCTION

Since early in 1960, vocational education has received more publicity in the popular press and more attention from professional educators than ever before in its history. Once based almost solely upon agriculture, our economy has become highly automated and industrialized with a resultant dependence upon advanced technology and specialization. Along with this more technical economy has come more efficient output per man-hour in all phases of production. Concomitant with this rise in industrialization and productivity has been an increase in unemployment in certain segments of the labor force. This fact is stressed in the Manpower Report of the President prepared by the United States Department of Labor. While discussing the changing pattern in the demand for labor the authors state:

Opportunities for employment of the unskilled and semi-skilled are declining or, at the most growing slowly, as new machines and automated production techniques have taken over repetitive functions formerly accomplished by hand. A larger proportion of the available jobs requires higher initial levels of skill and general education and may require periodic retraining to meet the needs evolving from new processes and new products. The impact of these trends is more dramatically evident in the tremendous continuing differentials that exist in unemployment among occupations.¹

¹United States Department of Labor, Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training, Government Printing Office, Washington, D. C., March, 1964, p. 25.

The authors of this report further point out that, even though the average national unemployment rate in 1963 was only 5.7 per cent, unemployment stood at 12.1 per cent for laborers, excepting those working on farms or in mines, and 7.4 per cent for operatives and kindred workers.

Obviously then, as fewer individuals produce goods and services in greater quantities with the aid of advanced technology, more and more of those occupations which demand unskilled and semi-skilled workers are eliminated from the labor market. The inevitable result is a paradoxical situation: a high unemployment rate during a period of high employment opportunity. Many segments of our economy are actually suffering from a dearth of adequately trained employees. But the school dropouts or inadequately skilled high school graduates, the typical source of unskilled manpower, no longer qualify for many of the most prevalent job opportunities in the world of work. These young people often lack the skills or technical abilities required to fill existing job vacancies. Unhappily, the need for skilled or technically trained manpower is becoming most critical just at the time when more young people under twenty-five are entering the labor force than ever before. A further examination of the Manpower Report of the President reveals that between 1960 and 1970 the number of young people in this age group who enter the labor force is expected to increase by over six million. This compares to less than a 400,000 increase in the same age group during the previous

decade. Sociologists, statisticians, and economists were able to predict this development and warned our nation of an impending crisis. Consequently, in the late 1950's and the early 1960's, people from many walks of life turned their thoughts and energies to the solution of this problem of inadequately trained manpower.

One of the more significant solutions, an increase in education, and more specifically, an increase in vocational education, received a great deal of attention. Vocational education is not a new concept in this country. Nor is federal financial aid, as proposed in this solution, a new concept. The Federal Government has been supporting vocational education since the passage of the Smith-Hughes Act of 1917. However, in light of the problems of unemployment created by automation and advanced technology, many leaders felt that vocational education as initially conceived in this country was inadequately preparing young people to enter today's labor force. Consequently, in early 1961, President Kennedy created a Panel of Consultants on Vocational Education. In November of 1962 this Panel transmitted to the President a report entitled Education for a Changing World of Work. The Panel of Consultants presented a sweeping review of vocational education and recommended several far-reaching changes. A direct outgrowth of the Panel's Report was the passage by Congress of the Vocational Education Act of 1963. Under the provisions of this Act, the Federal Government's financial commitment to vocational education

was extended not only by permitting an increase of approximately 400 per cent in federal funds, but also by providing greater flexibility in the kinds of programs for which the funds could be expended. Although the Act was passed in early 1963, it was not until late 1964 that Congress actually appropriated and allocated funds to the separate states.

Need for Study

As funds became available, the vocational administrators in the states began to develop procedures by which local school systems could benefit from the provisions of the new Act. In Michigan, applications for participation in the Act were sent to the superintendents of the 544 school districts in the state offering instruction in grades nine through twelve. Of the 544 applications sent, only 232 were returned. Since lack of funds has been assumed to be one of the major drawbacks to the expansion of vocational education in Michigan as well as the rest of the country, and since increased federal funds were now available, one might logically wonder why so many school administrators failed to complete applications which would have permitted their school districts to participate in funds available under the Vocational Education Act of 1963. It appears, therefore, that influences in addition to finances were responsible for the failure of many Michigan administrators to apply for funds to expand local programs of vocational education.

As indicated previously, the Panel of Consultants on Vocational Education recommended some rather sweeping changes

in vocational education as one way of narrowing the gap between the quality of available manpower and the quality required to fill available jobs. The Vocational Education Act of 1963 was passed for the express purpose of implementing the Panel's recommendations. Yet, on the basis of the responses by administrators of local programs during the first two years additional funds were available, it became apparent that the substantial expansion of vocational education envisioned by the sponsors of the new Act was not going to be realized--at least not to the degree apparently envisioned by them when they declared in the first paragraph of the Act that:

It is the purpose of this part to authorize Federal grants to States to assist them to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities of the State--those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, and those with special educational handicaps--will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.²

Was the Act inadequate in its provisions? Was it in fact based on a set of inaccurate premises? Were its financial provisions still too restrictive and/or limited? Were

²U. S., Congress, An Act to Strengthen and Improve the Quality of Vocational Education . . ., Public Law 210, 88th Congress, H. R. 4955, December, 1963, p. 1.

local administrators so poorly informed relative to the Act's aims, goals, purposes and opportunities that they were not able to see the benefits of the Act clearly enough to take advantage of it? As the legally constituted agency responsible for the administration of the provisions of the new Act, the Division of Vocational Education of the Michigan Department of Education needed answers to these questions. If answers could be obtained, those responsible for implementing the Act's provisions could better discharge their legal responsibilities. Dependent upon the answers received to these and other questions, one of two types of action could be taken. If it were found that the provisions of the Act were sound and extensive enough to provide the desired expansion of vocational education, then changes could be effected in the operational procedures of the Division of Vocational Education to insure the proper implementation. However, if it were found that the provisions of the Act were inadequate to effect the desired changes or were based on a set of faulty premises, then steps could be taken to change or strengthen the Act to make it correspond to the needs of the world of work.

Purpose of the Study

The purpose of this study was to identify some of the variables associated with the decisions of school superintendents to submit applications for funding under the Vocational Education Act of 1963. Put another way, one can ask the question, were there certain identifiable features extant

in the personal or professional characteristics or professional environment of those superintendents who submitted applications which were not found in those who did not submit applications?

Probably many variables influenced the superintendent's decision to submit an application. However, in order to delimit the scope of the study to a manageable degree, three distinct types of variables were investigated. It was hypothesized that each type contributed, in a distinct and unique way, when the superintendents made their decisions. In addition to aiding in the formation of a composite picture of the superintendent and his professional environment, each was considered and evaluated separately for other meaningful comparisons. As a result, three subpurposes of this study were formulated:

1. To identify certain factors which could be attributed to the superintendent's professional preparation and experience,
2. To identify certain factors which could be attributed to the superintendent's immediate professional environment, and,
3. To identify certain factors which could be attributed to the operational procedures of the Division of Vocational Education.

Under professional preparation and experience, the questions tested were as follows:

A. Was the decision to submit an application related to:

1. The superintendent's level of educational attainment?
2. The superintendent's length of employment by his current school board?
3. The superintendent's length of previous employment as a superintendent?
4. The superintendent's length of employment as a teacher?
5. The superintendent's length of employment in fields other than education?
6. The superintendent's undergraduate major?
7. The discipline in which the superintendent taught?
8. The superintendent's perception of vocational education?

Under environmental factors, the questions tested were as follows:

- A. Was the decision to submit an application related to:
 1. The size of the school district in terms of student enrollment?
 2. The amount of equalized valuation of the school district?
 3. Attendance at one of the regional meetings conducted by members of the State Division of Vocational Education to explain the application procedures?

In addition to the questions outlined above, other questions were included in the questionnaire to secure some meaningful answers for the Director of the Michigan Division of Vocational Education and his staff. Although the questions

outlined below may be considered related to the superintendent's professional preparation, experience or professional environment, they were considered separately because of their special interest to members of the Division of Vocational Education. Questions tested, relating to operational procedures of the Division of Vocational Education, were as follows:

1. How do superintendents perceive the Vocational Education Act of 1963 as affecting public schools?
2. What kinds of informational materials should the state office be developing to assist superintendents in implementing the Act?
3. What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act?
4. Are superintendents interpreting the Act to people of their communities or does the Division of Vocational Education need to prepare more factual materials?
5. Do superintendents view the Act as increasing federal and/or state control?
6. Are current application forms used to request funds satisfactory?
7. Do most superintendents view the matching fund requirement as a serious obstacle to program development?
8. Do superintendents feel more state financial aid should be provided to satisfy the matching fund requirement?

9. Do superintendents adequately understand vocational teacher certification requirements so they can best implement the provisions of the new Act?
10. Do superintendents view vocational education as training for a single skill or a family of occupations?
11. Do superintendents feel the priorities established for 1964-65 best met the needs of their schools in particular and the state in general?
12. Do superintendents adequately understand the provisions of the Vocational Education Act of 1963?
13. What parts of the Act are least understood by superintendents and need further clarification by state personnel?

For purposes of clarity, a brief explanation of the nature of the factors contained in the three subpurposes listed previously is necessary at this point. Factors associated with subpurposes one and two were felt to be extant in the superintendent or his environment and, in general, rather static. In contrast, factors associated with subpurpose three were felt to be more fluid and controllable. As such, they were subject to change. It was reasoned that an insight into the reactions of superintendents toward the provisions of the Act and the efforts of the State supervisory staff might well lead to operational changes by the Division of Vocational Education of the State Department of Education. Stated differently, if the nature of the less

static variables were understood, corrective changes could be effected by the Division of Vocational Education.

Several studies have indicated that the superintendent of a school district is the primary change agent in that district. Although it is recognized that many factors influence the superintendent's decision to initiate change, research has shown that the superintendent must initially be positively disposed toward a change before it will have much possibility for success. Therefore, for the purposes of this study, the factors affecting the decision to submit an application were confined to those which could be attributed directly to the superintendent or to the professional environment in which he works or to the operational procedures of the Division of Vocational Education.

Theoretical Framework of the Study

Brickell in a study conducted in New York state found that new types of instructional programs were introduced by administrators rather than the Board of Education or teachers. To illustrate this statement Brickell says:

Instructional changes which call for significant new ways of using professional talent, drawing upon instructional resources, allocating physical facilities, scheduling instructional time or altering physical space--rearrangements of the structural elements of the institution--depend almost exclusively upon administrative initiative. Even in the best of circumstances for the expression of new ideas--in schools where administrative authority is exercised with a light hand and faculty prerogative is strong--teachers seldom suggest distinctly new types of working patterns for themselves.³

³H. M. Brickell, Organizing New York State for Educational Change, University of the State of New York, State Education Department, Albany, New York, December, 1961, p. 87.

He admits that the administrator is not necessarily the original source of interest in a new program, but unless he gives his attention to a proposed change and actively promotes it, the innovation will not be adopted.

If we define curriculum as all the experience provided to pupils in the school system, many additional studies support the contention that superintendents are the primary change agents in a school.

For example, McNeil⁴ found that the superintendent's attitude was the key factor in curriculum improvement. In addition, Shock⁵ found that the Board of Education accepted the superintendent's recommendations on eighty-six per cent of all the items on the board agenda. Because of this, Shock concluded that his investigation tended to lend validity to the often-stated assumption that a school board looks to its superintendent for leadership and guidance in decision making. In support of Shock, Becker⁶ also found that school boards did not participate to any degree in the development of educational curricula but accepted the recommendations

⁴J. D. McNeil, "Deciding Factors in Curriculum Improvement," School Executive, Vol. 77, July, 1958, pp. 46-47.

⁵D. P. Shock, "Patterns in the Decision Making Process of a School Board" (unpublished Doctoral dissertation, Stanford University, 1960), p. 187.

⁶J. W. Becker, "Processes Used by Superintendents for the Improvement of Educational Opportunity in Selected School Districts" (unpublished Doctoral dissertation, Temple University, 1958), p. 307.

of superintendents and their professional staffs. Pritchard⁷ determined that curriculum construction was a very important function of the superintendent. In surveying board members regarding their opinions of the importance of the superintendent's role in curriculum construction, he found that no one said it was a minor role, twenty-nine per cent felt it was a cooperative function with the Board of Education and seventy-one per cent stated it was the major role of the superintendent.

These studies support the contention that the superintendent is the major or primary change agent in a school system. In view of these findings, it seemed appropriate to limit this investigation primarily to those factors related to the superintendent. However, a few factors which might be considered indigenous to the school system itself rather than to any one person were also investigated. For example, Roe⁸ found that the size of the school in terms of enrollment and its equalized valuation were both factors which contributed to the scope of vocational education programs being offered. According to Roe, schools with enrollments below 150 and valuations below \$1,500,000 are too small to offer occupational training. As mentioned previously, three factors associated with the professional environment of the superintendent were also considered.

⁷G. S. Pritchard, "Duties and Responsibilities of School Board Members in Small District Schools" (unpublished Doctoral dissertation, Michigan State University, 1964), pp. 195-196.

⁸W. H. Roe, A Study of the Reimbursed Vocational Programs in Michigan, Office of Vocational Education, Department of Public Instruction, Lansing, Michigan, 1950, p. 17.

Scope of the Study

This study was limited to 200 secondary school superintendents in Michigan. The 200 superintendents were equally divided into two groups on the basis of whether their school system submitted an application for funds during the first two years they were available under the provisions of the Vocational Education Act of 1963. The study was further delimited in that each group of 100 superintendents was stratified according to the high school enrollment in their schools. In each instance, high school enrollment included grades nine through twelve. Eight such strata were identified. Whenever possible, ten superintendents from each of the two major subgroups were randomly selected for inclusion into each stratum. However, in some of the strata insufficient numbers of schools were found which either had or had not applied for funds to allow the selection of equal numbers of superintendents in each stratum. A complete description of each stratum and the number of samples therein, in addition to the sampling procedure, can be found in Chapter Three.

Limitations of the Study

Since only Michigan school superintendents of specific types of school districts were included in the study, the findings relate only to the 544 schools in Michigan which originally received applications for funds available under the Vocational Education Act of 1963.

One further limitation of this study must be admitted.

The pre-selected variables were admittedly not exhaustive. It should be understood that certain significant variables probably exist which were not included in the study. Those which were included were felt by the writer to be the most pertinent to the purposes of the study but it should be noted that additional variables might exist which were inadvertently omitted.

The timing associated with the mailing of the questionnaire will be described fully in Chapter Three. It is recognized however that the instrument was submitted, by necessity, at a rather undesirable time of the year. As a result, the percentage of returns was probably reduced.

The questionnaire, an example of which can be found in Appendix A, was composed of ten pages of rather compact print. Because of the length of the questionnaire, some superintendents may have failed to respond. In order to obtain all the information needed for this study, it seemed necessary for the instrument to be rather lengthy.

As also discussed in Chapter Three, one part of the questionnaire was composed of a true and false test designed to measure the superintendent's understanding of the provisions of the Vocational Education Act of 1963. Although efforts were made to assure the superintendents that the test scores obtained would be viewed as a reflection of the quality of information provided by the Division of Vocational Education and not as a test of the knowledge of the superintendent, it is recognized that this procedure might well

have been viewed with distaste by some superintendents and could have resulted in fewer returns.

CHAPTER II

VOCATIONAL EDUCATION -- A CONTINUING EVOLUTION AND EXPANSION

Introduction

The purpose of this chapter is to present a review of selected literature and writings related to this study. Books, periodicals, government documents and unpublished dissertations were searched and those portions of research or materials having some connection to this study are reported. Sources available at the Michigan State University library were reviewed and, where necessary, materials not available were secured from other sources.

In preparing this review, the studies were grouped into six separate areas. The first section contains studies outlining the continuing evolution and expansion of vocational education. Studies and materials dealing with the emerging role of the school system and the place of vocational education within that system are presented in the second section. Section three contains research studies and writings which explain the form vocational education has assumed within our educational system. Section four of this chapter provides a review of studies which points out the attitudes and beliefs of the general public toward

vocational education. The fifth section contains studies which are concerned with federal aid and its relationship to vocational education. Finally, section six is composed of a review of materials and writings which are related specifically to the three subpurposes of this study.

Enactment of the Vocational Education Act of 1963 might be considered just one of many steps in the evolution of vocational education in this country. Specifically, this study is focused on the factors involved in the decision by Michigan secondary school superintendents to apply for funds available under this Act, thereby allowing them to expand or improve the vocational education program in their school districts. Since the study deals with a specific occurrence, the request for funds, the factors studied which might have a bearing upon this occurrence are also specific. However, to understand more fully why specific factors effect a specific decision, it is helpful to be familiar with the general conditions which existed at the time the decision was made.

Why was the 1963 Act passed by the 88th Congress and not the 81st or the 50th? One needs an understanding of the general social and educational climates relating to vocational education to fully appreciate the specific occurrences. For example, the National Defense Education Act of 1958 was passed to provide training of highly skilled technicians in occupations recognized as necessary to the national defense. When one understands that this Act was

passed as a reaction to the orbiting of the first man-made satellite by the Soviet Union, its provisions and their subsequent acceptance by educators are more readily comprehended. The social and educational climates were right for this Act at this time.

Unlike the National Defense Education Act, the provisions of the Vocational Education Act of 1963 were not the result of any one startling occurrence but resulted from a rather lengthy social and educational evolution. What evolutionary processes had taken place to make 1963 the right time for the passage of the Vocational Education Act? What were the social and educational climates of the day?

In Chapter I, reference was made to the social factors which prevailed when the 88th Congress enacted the new vocational education legislation. This section of Chapter II will deal briefly with the educational climate of that time and the occurrences of the preceding fifty years which molded it.

When approving the Vocational Education Act of 1963, why did the Congress provide federal funds for public schools and not for expanded training by industry, or the Urban League, or some other social agency? What evolutionary process had caused occupational training to be a part of the school system?

Someone has said, "There is nothing new under the sun," and this is certainly true of the concept of vocational education. Granted its form of execution has

changed, its relative status in the cultures of man has changed, its social acceptance has changed, but the basic concept, that of "learning by doing" has remained constant. Aristotle, in the Nicomachean Ethics, written prior to 322 B. C., said, "For the things we have to learn before we can do them, we learn by doing them, that is, men become builders by building and lyre-players by playing the lyre."¹ Nor do we receive vocational education in a vacuum. Man has always passed his skills and abilities on to other men for the greatest good of mankind. In another place in his Ethics, Aristotle pointed this out when he stated:

And the corresponding statement is true of builders and of all the rest; men will be good or bad builders as a result of building well or badly. For if this were not so, there would have been no need of a teacher, but all men would have been born good or bad at their craft.²

As the complexities of everyday life increased, the role of the teacher in passing on vocational skills became more and more important. Not only has this role increased in importance, it has in practice become an absolute necessity. In simple societies it was possible for the skilled craftsman or tradesman to pass his abilities and knowledge on to individuals on a one-to-one ratio. As the world of work became more complex, however, one-to-one student-teacher ratios could no longer suffice. The distance

¹Aristotle, Nicomachean Ethics, from a translation by W. D. Ross, The Works of Aristotle, Great Books of the Western World, Encyclopaedia Britannica, Inc., Chicago, 1952, Book II, p. 348.

²Ibid., p. 349.

between home and job became greater as the American economy moved from an agricultural base to one of industrial orientation, work became more complex and the amount of knowledge began to increase almost beyond comprehension. Consequently, it became impossible, both from the standpoint of physical separation and the magnitude of the task involved for a young man to acquire the vocational knowledge he needed from one individual. The time had come for a specific social agency to assume the major share of this responsibility.

At the turn of this century this social evolution began in earnest in regard to vocational education. In 1914, Snedden discussed the problem when he said:

It is life which trains men--life abounding in deeds and thoughts, among men and things. Wherever there is vital interaction between a mind and its world there is real education. Educative power is, thus, broadly distributed. Its centres of influence are the social institutions -- school, home, church, vocation, and neighborhood life. Together they bear the total work of training men, with all the economy and efficiency which comes through a division of labor. In proportion to the relative strength and weakness of their structures, they supplement and reinforce one another.

This distribution of educative power among the social institutions is by no means a fixed division of burdens, set once and for all by tradition or reason. The needs of society lay their heavy demands now upon one agent, now upon another. And in the shifting currents of social progress, some institutions once powerful are left weakened, if not helpless, while other institutions wax strong to meet the demands of the time.³

³David Snedden, The Problem of Vocational Education, Houghton Mifflin Company, New York, 1910, p. iii.

The Emerging Role of the School System and Its
Responsibility for Vocational Education

Which social agency should assume the responsibility for providing vocational education? Early man met this need in the home and soon found this method to be inadequate. Industry followed with a system of apprenticeships which was also inadequate to perform the complete job as the requirements of work began to change even more drastically and more rapidly. Snedden felt this evolution had reached its logical end by 1914 when he wrote:

In all these variations of influence, one striking tendency stands out clearly: As the agencies for incidental and informal education become incapable of training men for their complex environment, society, becoming increasingly selfconscious, gathers up the neglected functions and assigns them to the school, the one institution entirely under its control.⁴

The fact remained that "Vocational education is as old as man himself."⁵ The basic question in 1914 was, is vocational education, as presently perceived, in the hands of the proper social agency? Should the schools be responsible for occupational training or should their responsibility end with providing "the opportunity to acquire the elements of a general education which is the birthright of every citizen in a democracy?"⁶

⁴Ibid., p. iv.

⁵United States Department of Health, Education, and Welfare, Education For A Changing World of Work, Report of the Panel of Consultants on Vocational Education, Office of Education, 1963, p. 18.

⁶Melvin L. Barlow (ed.), Vocational Education, The Sixty-fourth Yearbook of the National Society for the Study of Education, Part I, University of Chicago Press, Chicago, Illinois, 1965, p. 19.

What facts had society to support the need for vocational education as an integral part of the educational system? It would seem that irrefutable evidence exists in the cultural history of the United States to justify the belief that some form of vocational education is essential in the public schools.

Snedden alluded to this in two different instances when he said:

We may sum up by saying that the education whose controlling motive in the choice of means and methods is to prepare for productive efficiency is vocational; that vocational education, more or less unorganized and resting largely on native instincts and capacity, has always existed; that it tends to be organized under school conditions only where special demands or necessities exist; and that from the standpoint of social necessity, vocational education given by some agency is indispensable.⁷

and again when he stated:

In the course of the development of a progressive social economy, we may expect it to be made obligatory upon every individual to acquire a certain amount of vocational education, just as the present tendency of legislation is to prevent any one from remaining illiterate. Vocational education is not in conflict with liberal education, but is a supplemental form, and may be expected to reinforce it.⁸

As stated previously, Snedden only alluded to the role of the educational system in providing vocational education. Fifty-four years later, Venn was much more direct and to the point. He stated:

At a time when the demand for education, especially higher education has never been greater, is it necessary that vocational and technical occupations

⁷Snedden, op. cit., p. 13.

⁸Ibid., p. 82.

be taught within the educational system? In the past, perhaps no; now, however, yes, because technology is demanding workers with a degree of training and related education that can best be offered in a system of education. To ignore the demand is to accept social and economic dislocations that will vitally affect the American economy and the personal well-being of our citizens.⁹

Hawkins, Prosser and Wright also seemed to feel that vocational education belonged in the public school system when they pointed out:

As civilization has developed, the tendency has been to increase the educational area covered by conscious and more or less organized instruction to the furthest possible extent. This has long been the case in academic education, and it is likewise the case in vocational education.¹⁰

Faust did not question the principle that vocational education should be a part of the school system. He obviously believed this was not the issue at all when he wrote:

It is therefore not enough that our educational system prepare people for the specialized tasks required in our specialized society. It must, in addition, prepare them for their responsibilities as citizens.¹¹

In further expounding his views of the responsibilities of

⁹Grant Venn, Man, Education and Work, American Council on Education, Washington, D. C., 1964, p. 18.

¹⁰J. Chester Swanson (compiled by), Development of Federal Legislation for Vocational Education, from Development of Vocational Education by Layton S. Hawkins, Charles H. Prosser, and John C. Wright, American Technical Society, 1951, p. 3.

¹¹National Manpower Council, Improving the Work Skills of the Nation, Columbia University Press, New York, 1955, p. 23.

education in the area of training people, Faust went on to say:

This means that our educational system must not only make sure that the knowledge, the insights, and the skills developed by preceding generations are transmitted to oncoming ones, but that the next generation be prepared to make advances in technology, in social justice, and in the realization of the full range of individual capacities.¹²

Barlow¹³ contended that society, through the public education system, has a responsibility to provide instruction in vocational education. And finally, Dressel supported the concept of vocational education being a logical and integral part of the educational system when he stated: "Since all education today is, and must be, both liberal and vocational, the task is not that of finding the appropriate proportions of each but rather of reappraising and redefining all courses so that they contribute to both."¹⁴

And finally, in an article written in 1965, Tompkins reviewed a statement printed in 1936 by the Committee on the Orientation of Secondary Education and had this to say: "But the case for vocational education in the secondary school remains intriguingly close to that presented by the Committee in 1936--the need for vocational education is

¹²Ibid., p. 24.

¹³Barlow, op. cit., p. 2.

¹⁴Paul L. Dressel, "Liberal and Vocational Education," College and University Bulletin, Association for Higher Education, XI, May 1, 1959, p. 4.

still great and the school is still the most effective agency for vocational education."¹⁵

It appears obvious that the Congress of the United States supports this position. Otherwise, why would they have been willing to appropriate large sums of money through Federal vocational education legislation to support the concept? This argument should not be construed to imply that vocational education can and should be the sole responsibility of this nation's public schools. As mentioned earlier, business and industry have provided, and will continue to provide, certain types of vocational training. As a matter of fact, the Panel of Consultants on Vocational Education recognized the important contributions of these programs when they wrote:

Vocational education programs are conducted by a variety of institutions in addition to the public schools. Some of these programs are excellent examples of educational planning and much of the best instructional equipment and materials are to be found there.¹⁶

The fact remains that a significant portion of vocational education, according to a majority of educators, should be an integral part of our public school offering. By 1963, therefore, it was generally accepted that the educational system should assume the responsibility of

¹⁵The Bulletin of the National Association of Secondary School Principals, National Education Association, Washington, D. C., Vol. 49, No. 301, May, 1965, Foreword.

¹⁶United States Department of Health, Education, and Welfare, op. cit., p. 6.

providing this type of training. McCarthy warned against a complacent attitude by educational leaders when he wrote: "When the programs of vocational education in the public schools become static, and are out of step with occupational practices, some other agency will assume the responsibilities which belong in the field of public education; and there are several agencies not affiliated with education which are anxious to assume educational responsibilities."¹⁷

To summarize, the question of what social agency should provide vocational education to the youth and adults of this country has been asked, and by 1963 it was generally acknowledged that the public school system was the logical agency to perform this service.

The Form and Structure of Vocational Education in the School System

Once it had been decided that vocational education should be provided as a part of public education, it was necessary to determine what form this type of education should take. Should every student be expected to enroll in it? Should it provide training for specific occupations or general families of occupations? In short, what should vocational education do for students?

Welhelms voiced these concerns in the Bulletin of the National Association of Secondary School Principals.

¹⁷John A. McCarthy, Vocational Education, America's Greatest Resource, American Technical Society, Chicago, Illinois, 1951, p. 333.

He stated that principals were worried about whether vocational education programs provided training for a specific occupation or a family of occupations. They were also concerned about the form or organization of vocational education and were asking whether vocational education should be offered in area vocational schools or as a part of comprehensive high schools. They were further concerned about the current need to broaden the scope of vocational education to include technical programs on the one hand and specific programs for the academically untalented on the other.¹⁸

These issues, all a part of the question of the form of vocational education, have not been completely resolved even today. Which students should be exposed to vocational education and should their training be specific or general in nature were apparently major points of controversy between "generalists" and "vocationists" during the evolutionary process. Barlow summarized the thinking on these questions very concisely when he stated:

Some leaders of education believe that most of the efforts subsumed under the heading "vocational education" have been not only puerile but downright dangerous; the young people exposed to it have not only failed to acquire an order of technical skill which would assure them success in the labor market but have also been deprived of the opportunity to acquire the elements of a general education which are the birthright of every citizen in a democracy.

To the severity of this judgment can be juxtaposed the equally strong views of leaders of

¹⁸Fred T. Welhelms, "Vocational Education: What Are the Big Questions?" The Bulletin of the National Association of Secondary School Principals, National Education Association, Washington, D. C., Vol. 49, No. 301, May, 1965, pp. 3-7.

vocational education who maintain that vocational education, especially at the secondary school level, has never attempted to produce a skilled worker. Its objectives have been much more modest: to afford certain youngsters an alternative to the conventional college preparatory curriculum by offering them a balanced program of general education, an introduction to applied mathematics and basic scientific theory, and at least the rudiments of specific manual skills or preliminary training as a technician.¹⁹

As mentioned, these issues have not been resolved even today but educators seem less concerned about them. Perhaps the reason for the apparent lessening of tension is that the discourse is no longer one between "generalists" and "vocationalists." The forces seemingly have become divided, and today, "generalists" are found to disagree with "generalists" and "vocationalists" do not always agree among themselves.

For example, one college professor whose field is outside vocational education perceived it as being necessary for every student when he wrote:

All students need to learn something of the connection between their thoughts and their hands. If either side is slighted, the child is cheated. If manual arts courses are given sufficient intellectual content, as they can be, they should prove useful for liberal arts purposes, since ideas linked to activities gain in significance and scope. When the time comes that we recognize more fully this simple educational truth, we will be in a position to move toward the kind of public school system for all American children that Dewey and Mead worked to bring about. But as long as we continue to make the sharp distinction between academic and vocational education that we make in most American cities and towns, we

¹⁹Barlow, op. cit., p. 19.

are perpetuating economic and cultural class distinctions and denying education in its full sense to a large part of our population.²⁰

Hutchins obviously does not agree. The overriding theme of his educational philosophy is a plea for the study of the classics by all students. This tenet is evident in the majority of his writings but no more so than when he states we should " . . . leave experiences to other agencies--let schools deal only with the intellectual training of the young."²¹

Whether vocational education should be offered as training for a specific occupation or a family of occupations was to become an issue among educators. Some vocational educators would offer training for specific occupations at the high school level while others contend that vocational education should remain general and training should be provided in families or clusters of occupations. Still others like Struck saw variations in the two extremes. Struck felt, as far back as 1945, that we should " . . . stress exploratory experience in grades through the ninth, followed by general education in the opening years of the high school and specific vocational education during the last two or three years of the high school as now

²⁰Darnell Rucker, "The Liberal and the Manual Arts in Education," School and Society, Vol. 91, No. 2232, November 16, 1963, p. 24.

²¹Robert Hutchins, The Higher Learning in America, Yale University Press, New Haven, 1936, p. 96.

constituted, plus approximately two years of post-high school training."²²

One might summarize the position of educators on the question of what form vocational education should take in the public schools at the time of the passage of the Vocational Education Act of 1963 by saying the issue had been joined but the outcome was in doubt. As a result, the provisions of the Act were written in such a way as to allow training in either a single skill or a cluster of occupations, in area centers or in comprehensive high schools, as technical programs for the academically talented or as special programs for persons with special needs. In short, the members of the 88th Congress did not try to answer these questions or resolve all issues. Instead, they wrote the Act in such a way as to allow the administrators of each school system to make their own determination as to what form vocational education should assume.

Public Attitude Toward Vocational Education

What was the attitude of the general public regarding vocational education? The findings of two studies revealed the role which laymen thought vocational education should play.

²²Theodore F. Struck, Vocational Education For A Changing World, John Wiley and Sons, Inc., New York, 1945, p. 524.

In one of these studies, conducted by the Michigan State Board of Control for Vocational Education, the researcher found that " . . . there is general agreement among all groups that the schools are not giving adequate occupational preparation to young people."²³ As a result of this particular study the investigator reported:

The people of Michigan are very positive that the public schools should provide more opportunities for young people to prepare to earn a living. If what the people think has any influence on what the schools provide, there will be an expansion of vocational education in all schools of the state.²⁴

It was further revealed in this study that "the majority of Michigan citizens say that we can reduce dropouts by increasing and improving vocational education."²⁵ In a second study, Wenrich and Crowley found that the "general favorability of parents towards education includes the vocational program. They want to see a good program for youth who could benefit from such a program."²⁶ More specifically, Wenrich and Crowley stated:

. . . they react strongly in favor of the statement that vocational education has a necessary place in the high school curriculum. They want to see more

²³Office of Vocational Education, What Michigan People Think About Vocational Education Needs, Department of Public Instruction, Lansing, Michigan, June, 1947, p. 2.

²⁴Ibid., p. 3.

²⁵Ibid., p. 11.

²⁶Ralph C. Wenrich and Robert J. Crowley, Vocational Education as Perceived by Different Segments of the Population, Cooperative Research Project No. 1577, University of Michigan, 1964, p. 52.

students enrolled in its programs; even if it should mean a heavier burden on the existing school budget, they favor an expansion of the program. They appear to consider properly conducted vocational programs as providing a valuable service to the community in furnishing adaptable workers for the community's labor force.²⁷

If these two studies can be considered to have provided answers typical of the beliefs of the average layman, it would appear that the general citizenry was in favor of vocational education at the time of the passage of the Vocational Education Act of 1963.

One Michigan educator apparently doubted that laymen held a very favorable attitude toward vocational education. Young, a supporter of increased vocational education, suggests its elevation in the school setting would reduce the dropout rate. He even proposes that it become a prerequisite for all college-bound students. He contends, however, that the attitude of the American public toward preparation for college has placed vocational education in an illogical position. He states this is so because Americans have an "English gentleman" philosophy of life; college and accrediting personnel are academically oriented and therefore measure high schools by how well their graduates do in colleges and universities; most secondary school officials do not understand the role of

²⁷Ibid., p. 46.

vocational education and parents and students are too enamored of the college preparation program.²⁸

Vocational Education and Federal Aid

Whether to grant Federal aid has persisted as one of the major points of contention during the evolution of vocational education in the United States. The arguments for and against Federal aid to education have waxed loud and long. Primarily, the issue centers around the question of separation of church and state and the specter of Federal aid creating Federal control. The position of the Federal Government in the field of education has changed markedly over the last 100 years, and the change has not been easy or free of controversy. Most authorities agree that the first significant effort into education by the Federal Government began with the passage of the Morrill Act of 1862. This Act provided for the establishment of agricultural and mechanic arts colleges.²⁹

Drake felt that the land grant colleges were peculiarly representative of the trends in higher education in the United States during the 19th century. He stated, "Their major characteristics may be summarized as an exemplification of democracy in education, associating higher

²⁸Robert W. Young, "The Academic 'Mohammed' and the Vocational 'Mountain'," School Shop, Vol. XXIV, October, 1964, pp. 27-28.

²⁹William E. Drake, The American School in Transition, Prentice-Hall, Inc., New Jersey, 1955, p. 302.

education with a basic industry, reliance upon scientific research, the specific training of students, the promotion of a program of adult education, and a major concern for the general welfare."³⁰

Most or all of these characteristics probably still prevailed when the specific vocational education acts were passed beginning with the Smith-Hughes Act of 1917 and continuing through the passage of the Manpower Development and Training Act of 1962. Yet, not everyone was or is especially enamored of Federal aid.

Moley,³¹ for instance, recognizes two distinct dangers associated with Federal aid: First, centralization of control over the content of education and, second, indoctrination by those who do the controlling. In order to make his point that Federal officials may indeed attempt to influence educational policies at state and local levels, he quoted a 1961 report of the Committee on the Mission and Organization of the United States Office of Education:

In addition to the Federal level of public policy determination, the Office has much concern with policy at the state and local levels and in higher educational institutions. Active leadership by the Office to encourage constructive consensus on particular problems or issues in American education helps to crystallize public policy at all levels.³²

³⁰Ibid., p. 304.

³¹Raymond Moley, "Uncle Sam, Schoolmaster," Newsweek, Vol. LXII, No. 13, September 23, 1963, p. 110.

³²Ibid.

Moley contends further that:

This, then, is the prescription to establish under an elite, the members of which think alike on public policy, a vast system of indoctrination in our schools, colleges and universities everywhere. Their pious denial of the word "control" is not relevant. For control by whatever regime is in the White House is real, active and apparent.³³

Another example of the fears expressed relative to Federal control resulting from Federal aid can be found in an article by Exton. She says:

Since federal funds are normally provided to obtain federally desired results, an examination of the educational assistance laws now on the statute books will show various controls, ranging from slight and implicit to mandatory requirements to be federally enforced by withholding federal payments unless the law is complied with. Federal controls may stem from the legislation itself, rules and regulations set up to administer the law, administrative decisions expressed by federal officials, or other factors.³⁴

These two views express the deep concerns shared by many. Some feel that the only way to prevent Federal control is to provide support for all public education. Prior to the passage of the Elementary and Secondary Education Act of 1965, Federal aid to education had been established to accomplish specific purposes, such as the expansion of training in agriculture, increased emphasis in vocational education, schooling for American Indians, or job retraining. In this connection, one source says:

³³Ibid.

³⁴Elaine Exton, "Issues Churned Up By Federal Aid," The American School Board Journal, Volume 149, Number 3, September, 1964, pp. 42-43.

Although the federal role in education ought to be limited chiefly to the financial, the actual role has been to use federal assistance as a means of making decisions regarding the conduct of education in its specific. Specificity is a dominant characteristic of existing programs; they tend to deal with particular institutions, or particular educational functions or particular students. Nowhere is there evidence of a commitment to act in general support of education.³⁵

Specific aid, if one follows this line of reasoning, will favor one element of the curriculum over another and therefore interfere with local curriculum decisions and consequently with local and state control. In addition, advocates of general federal support point out that federal aid has not been available for elementary education. Obviously this is no longer true with the passage of the Elementary and Secondary Education Act of 1965.

Later, Exton³⁶ contended that Federal aid to education would lead to Federal control by reducing local boards of education to mere rubber stamp organizations whose sole responsibility would be to pass on decisions made at the national level. This will come to pass, in her opinion, "unless there is a strong public demand that federal action be limited to goals consistent with the maintenance of state and local control. . . ."³⁷

³⁵Educational Policies Commission, Educational Responsibilities of the Federal Government, National Education Association, Washington, D. C., 1964, pp. 9-18.

³⁶Elaine Exton, "Will the New Federal Aids Strengthen or Weaken the Public Schools?" American School Board Journal, Volume 150, Number 2, February, 1965, pp. 37-38.

³⁷Ibid.

So much for some of the beliefs of professional educators and writers. How has the general public felt about Federal aid? In the study conducted by the Michigan Board of Control for Vocational Education,³⁸ it was discovered that 83 per cent of the sample felt that more Federal and state aid should be provided in order to improve vocational education. Apparently, the general public has not been very concerned about potential Federal control or is willing to risk such an occurrence in order to obtain more adequate vocational education programs for young people. It appears that Congress agrees with the public since at last count it has passed over thirty-four separate pieces of Federal legislation providing financial assistance to public schools. As Elfin pointed out, a recent listing of Federal agencies involved in education ran to twelve printed pages.³⁹ Perhaps Elfin summarized it best when, in 1963, he said of the newly appointed Commissioner of Education, Dr. Keppel, "He can also convince the American people that it is no longer a question of whether there should be Federal aid to education, but how much aid there should be and how it should be distributed."⁴⁰

Educationally, the time seems to have been right

³⁸Office of Vocational Education, op. cit., p. 13.

³⁹Mel Elfin, "School Aid: Can Dean Keppel Call The Class to Order?" The Reporter, Volume 28, Number 6, March 14, 1963, pp. 32-35.

⁴⁰Ibid.

for the passage of the Vocational Education Act of 1963. The public school was apparently the accepted social agency for providing vocational training, educators generally were ready to discard the rather narrow concept of vocational education as a single skill and work toward the development of families or clusters of occupations, while the general public seemed to favor an expansion of vocational education offerings and accept Federal aid for education. These developments, coupled with the need for trained manpower as described in Chapter One, were undoubtedly considered by members of the 88th Congress when they passed the Vocational Education Act of 1963.

Review of Related Studies

Limited research has been conducted which relates to the purposes of this study. Since this study was designed around three distinct subpurposes, this portion of the review will consider separately the literature which pertains most directly to each subpurpose and the variables which were related to each of them.

Subpurpose one dealt with the relationship between the superintendents' professional preparation, their administrative and teaching experience, their work experience outside the field of education, their perception of vocational education and their decision to submit an application for funds available under the provisions of the Vocational Education Act of 1963.

Wenrich and Crowley⁴¹ conducted a study which was focused on one of the variables included in subpurpose one. While measuring school administrators' attitudes toward vocational education, they found that school administrators who are highly favorable have had less personal experience with vocational education than have those who are less favorable. In addition, they found an apparent positive correlation between high educational attainment and an unfavorable attitude toward vocational education.

Another variable included in subpurpose one was designed to obtain a measure of the superintendent's perception of vocational education. Among the studies in which this variable was considered, Wenrich and Crowley⁴² found that administrators agreed that students in vocational education programs lack too many scholastic skills but that vocational education is necessary for students to develop as well-rounded youth.

Furthermore, according to Wenrich and Crowley, school administrators believed that students enrolled in vocational education courses for social reasons rather than to obtain an occupational objective. They stated:

School professionals believed that students elected vocational courses because of social-class factors, not primarily because of the threat of failure, or

⁴¹Wenrich and Crowley, op. cit., p. 74.

⁴²Ibid., p. 50.

as a result of a special interest. It is because their friends select a vocational type course that some individuals choose the same course.⁴³

Wenrich and Crowley also found that school administrators continued to believe that vocational education programs are considerably less respectable than the college preparatory program.⁴⁴ If this attitude is shared by the students, it may account for their selecting vocational education on the basis of peer group acceptance rather than a special interest in preparing for the world of work.

Wenrich and Crowley also report that school administrators see vocational education as more interesting, equally meaningful and certainly more essential for some students than a college preparatory course. However, they also found that vocational education is less purposeful, less satisfactory in terms of results and structure and less well defined than the college preparatory curriculum.⁴⁵

The perceptions discovered by Wenrich and Crowley may be partially explained by the following statement from a study conducted by the American Vocational Association: "The educational system has remained far too deeply rooted in the academic tradition to be wholly effective for an overwhelmingly large proportion of our present high school

⁴³Ibid., p. 54.

⁴⁴Ibid.

⁴⁵Ibid., pp. 61-63.

population."⁴⁶ It was further revealed in the American Vocational Association study that a high school curriculum which emphasizes only academic college entrance requirements is meeting the real needs of only a small per cent of the high school population.

Bentley and Woerdehoff⁴⁷ found, on the other hand, that ninety-one per cent of Indiana's school administrators believed that opportunities for vocational education are an important responsibility of secondary education.

This finding was supported by McLure who revealed that administrators felt that a sound vocational education program would reduce high school dropouts. He wrote:

The students who drop out of high school constitute an important group to be considered in planning programs of vocational education. Many of these individuals would remain in school and graduate if the opportunities were available to prepare them for the occupation of their choice.⁴⁸

The committee on Research and Publications of the American Vocational Association found similar results in an earlier study. In 1951 the committee wrote:

⁴⁶American Vocational Association, Inc., Administration of Vocational Education at State and Local Levels, prepared by the Committee on Research and Publications, Washington, D. C., 1953, pp. 3-4.

⁴⁷Ralph R. Bentley and Frank J. Woerdehoff, The Viewpoints of Indiana School Administrators Regarding Vocational Education, The Division of Education, Purdue University, Lafayette, Indiana, June, 1958, p. 6.

⁴⁸William P. McLure, Director, Vocational and Technical Education in Illinois - Tomorrow's Challenge, Bureau of Educational Research, College of Education, University of Illinois, Urbana, Illinois, 1960, p. 44.

There is an increasing awareness among school administrators of the responsibility of publicly supported schools to provide vocational education for the American people. Education for purposeful work is distinctive in its aims and services, and the school administrator has felt the need for understanding both the philosophy and the specific administrative policies required for genuine vocational education.⁴⁹

The school administrator's role in the development of vocational education programs was alluded to in the same study when the authors stated, "The success of any program of vocational education is directly dependent upon the quality of leadership given to the program."⁵⁰ This latter statement supports the theory expressed in Chapter One that the superintendent is the primary change agent in a school system. Apparently, school administrators perceived themselves in that role. Why else would they have indicated to the committee that the success of the vocational education program depended upon the quality of their leadership?

Subpurpose two dealt with certain variables which could have been associated with superintendents' decisions to submit an application and were a part of their immediate professional environment.

Some investigators found that the size of the school district has a definite bearing upon the beliefs and attitudes of the superintendent toward education in

⁴⁹American Vocational Association, Inc., The School Administrator and Vocational Education, prepared by the Committee on Research and Publications, Washington, D. C., 1951, p. 1.

⁵⁰Ibid., p. 16.

[illegible]

general and vocational education in particular. Kosoloski⁵¹ found, for example, that the level of participation by small schools in Title III of the National Defense Education Act of 1958 reflected their need for more help and also a greater desire to use available Federal funds. This apparently belies the timeworn statement, "The rich get richer and the poor get poorer," since small schools which generally have less assessed valuation behind each student made the most use of this Act.

Wenrich⁵² also discovered that the smaller the school the higher the percentage of administrators who favored constructing state or area vocational schools with state and Federal funds in order to provide realistic industrial education. He further pointed out that administrators from small schools did not see a need for providing guidance services for employment-bound youth. His findings appear to reflect different beliefs and attitudes of superintendents from schools of various sizes toward the use of Federal funds to support education.

⁵¹J. E. Kosoloski, Jr., "A Quantitative Analysis of Pennsylvania Public School Utilization of the Provision of Title III of the National Defense Education Act of 1958" (unpublished Doctoral dissertation, The Pennsylvania State University, 1958), p. 128.

⁵²Ralph C. Wenrich, "A Study to Determine More Effective Ways of Using State and Federal Vocational Education Funds in the Further Development of Programs Operated by Local School Districts," a part of the Michigan Vocational Education Evaluation Project, State Board of Control for Vocational Education, Lansing, Michigan, July, 1962, p. 67.

Apparently the quality of vocational education offerings is also associated with the size of the school district. McLure concluded from his study that, "There is much evidence that a minimum enrollment of about 2,000 high school students in the whole district is essential to organize staff, students and equipment efficiently and economically for a comprehensive type of program in one or more instructional centers."⁵³

A study conducted in Michigan⁵⁴ using "effective" and "ineffective" schools having vocational education programs showed that the "effective" group of school systems averaged 5,683 pupils and 232 teachers whereas the "ineffective" group averaged 1,862 pupils and 71 teachers.

In summary, the preceding review of the literature seems to indicate that inadequate programs of vocational education are provided in small school systems and that the superintendents of the small districts hold views relating to vocational education which are considerably different from those of their counterparts in larger districts.

Subpurpose three dealt with thirteen variables related to the superintendent's decision to submit an

⁵³McLure, op. cit., p. 110.

⁵⁴Clarence C. Mason, A Study of Organization for the Administration of Vocational Education in Selected Michigan High Schools, Office of Research Administration, School of Education, University of Michigan, June, 1963, p. 8.

application as influenced by the operational procedures of the Division of Vocational Education of the Michigan State Department of Education. The reader is reminded that these thirteen variables were discussed in Chapter One.

One of the variables included in subpurpose three dealt with the question of whether the Division of Vocational Education staff of the State Department of Education was providing administrators with sufficient written information pertaining to vocational education. Some educators have conducted studies which provided at least a partial answer to this question. The American Vocational Association,⁵⁵ for example, found that school administrators feel the need for specific information concerning vocational education when the development of vocational programs is being considered. Again, in a study by Wenrich,⁵⁶ it was discovered that seventy-two per cent of the administrators sampled indicated a need for prepared instructional materials. Bentley and Woerdehoff concluded from their study of school administrators that eighty per cent "viewed themselves as key persons in the development of local vocational education programs."⁵⁷ They go on to observe, "If Indiana school administrators are to assume this role, then it is obvious that they will need to have

⁵⁵American Vocational Association, Inc., The School Administrator . . ., op. cit., p. 1.

⁵⁶Wenrich, op. cit., pp. 72-75.

⁵⁷Bentley and Woerdehoff, op. cit., p. 8.

a thorough working knowledge of the Indiana State Plan for Vocational Education and to be adequately prepared professionally to understand the philosophy and practice of vocational education."⁵⁸

Apparently then school administrators need additional printed materials and information about vocational education. However, Teckman⁵⁹ found that it was impossible to keep present state department standards attuned to proposed new practices in secondary education. It seems reasonable to assume that this statement pertains to vocational as well as general education. In support of Teckman, Riddle⁶⁰ found that many state departments are doing little if anything to improve curricular and instructional practices. It would appear, therefore, that administrators of state departments of education need to prepare additional materials on vocational education but that there is evidence that the state departments may not be fulfilling this leadership role.

Another variable included in subpurpose three dealt with the school administrators' beliefs about the need for consultative assistance from the Division of Vocational

⁵⁸Ibid.

⁵⁹Charles Edward Teckman, "The Influence of State Departments and Regional Accrediting Associations on Secondary School Experimentation" (unpublished Doctoral dissertation, The Ohio State University, 1962), p. 174.

⁶⁰Bruce E. Riddle, "An Analysis of State Departments of Education with Respect to Their Emerging Leadership Functions in Educational Improvement" (unpublished Doctoral dissertation, University of Oklahoma, 1961), p. 116.

Education staff. Most investigators while considering the need for printed materials also examined the need for consultative assistance as a method for providing information to school administrators.

A study by Riddle specifically referred to consultants. He found that many states did not have an adequate number of consultants.⁶¹ One other study by Wenrich and Ollenburger alluded to this need when they found that high school principals felt they did not have enough time to provide leadership and assistance to develop vocational education programs.⁶² This would imply that additional consultant help from the State Department of Education could fill this need. These two studies, coupled with those dealing with providing printed materials provide data which imply the need for more and better consultant assistance for local school administrators.

Subpurpose three also centered on a variable which dealt with the superintendents' beliefs pertaining to Federal control resulting from Federal aid. Three studies focused specifically on Federal or state control of

⁶¹Ibid.

⁶²Ralph C. Wenrich and Alvin Ollenburger, High School Principal's Perception of Assistance Needed in Order to Develop More Adequate Programs for Employment-Bound Youth, Office of Research Administration, School of Education, University of Michigan, December, 1963, p. 8.

education. Lu⁶³ found no apparent correlation between Federal aid and Federal control, or between Federal control and detriment to national education. Posey, on the other hand, was not prepared to support Lu. School administrators, according to Posey, felt there had been an increase in Federal control of education in recent years. He also found that superintendents from larger districts were more aware of Federal control than superintendents from districts with enrollments of less than 1,500 students. Posey also found that states having a "variable" cost foundation showed more control than those having a "unit cost" foundation. And finally, all superintendents saw a high degree of Federal regulatory practices but a small amount of leadership.⁶⁴

Bentley and Woerdehoff⁶⁵ supported Posey when they found that thirty-six per cent of high school administrators believed vocational education was a Federally controlled program while thirty-eight did not agree. The findings of these investigations seem to support the conclusion reached in an earlier section of this chapter that

⁶³Hsien Lu, "Federal Role in Education: The Problem of Federal Aid with or without Control" (unpublished Doctoral dissertation, Columbia University, 1963), pp. 474-476.

⁶⁴Ellis Benton Posey, "State Education Agency Control of Public School Expenditures in Selected Foundation Program States" (unpublished Doctoral dissertation, University of Texas, 1953), pp. 581-582.

⁶⁵Bentley and Woerdehoff, op. cit., p. 11.

Federal aid and Federal control are unresolved issues in the minds of educators. However, as shown earlier, the general public appears to want better education and are not reluctant to accept Federal aid in order to obtain it.

The superintendent's perception of the need for additional state or Federal funds was also surveyed as a part of subpurpose three. In general, school administrators seem to feel that financing of vocational education programs is inadequate and would welcome additional financial support. McLure⁶⁶ found two conditions which hindered the fullest development of vocational education in comprehensive high schools: first, the organization of small student populations into administrative units and, second, lack of adequate finances. Wenrich and Crowley⁶⁷ found that school administrators support greater expenditures to provide a well-rounded program of vocational education. They would support expanded as well as upgraded programs. The administrators in Bentley and Woerdehoff's study⁶⁸ felt that if vocational education programs are to be made available to all students, particularly in the smaller schools, several developments may be desirable. First, it may be necessary to broaden the tax support and school attendance base through school district reorganization,

⁶⁶McLure, op. cit., pp. 109-110.

⁶⁷Wenrich and Crowley, op. cit., p. 52.

⁶⁸Bentley and Woerdehoff, op. cit., p. 12.

second, to increase state incentive aids, and finally, to explore the possibilities of area school programs for vocational education. In terms of methods of financing expanded vocational education services, Bentley and Woerdehoff⁶⁹ found that twenty-one per cent of the Indiana school administrators felt Federal funds were undesirable and nearly one-half felt it desirable to have vocational education at least partially financed with Federal funds.

Subpurpose three also contained a variable relating to the superintendent's beliefs regarding the best use of available vocational education funds. These beliefs were revealed by a few of the studies reviewed. For example, Wenrich and Ollenberger⁷⁰ found that seventy-five per cent of the high school principals favored spending some or most of earmarked vocational education funds to improve programs for employment-bound youth. The principals surveyed felt that the first requirement for assistance was an assessment of the needs of in-school and out-of-school youth and employers. Wenrich⁷¹ found that superintendents generally agreed that more funds should be spent for job training for special groups, vocational guidance and equipment, and less for more supervisory and consultant services. In terms of a priority use of funds, and based on the felt

⁶⁹Ibid.

⁷⁰Wenrich and Ollenberger, op. cit., p. 8.

⁷¹Wenrich, op. cit., p. 73.

needs of administrators outlined above, Wenrich stated, "It is entirely possible that our past and present policies and practices relating to the financing of vocational education in Michigan may have had the effect of supporting local on-going programs rather than promoting new programs designed to meet the needs of our technological age."⁷² It would appear from prior studies that the use of vocational education funds was being questioned by school administrators.

One of the variables included in subpurpose three dealt with the superintendent's understanding of the Vocational Education Act of 1963. A survey of available literature did not reveal any other study which had attempted to measure this variable.

⁷²Ibid., p. 3.

CHAPTER III

METHOD AND PROCEDURE OF THE STUDY

Population and Sample

At the time this study was conducted, 544 Michigan school districts offered instruction through the twelfth grade. Since vocational education is not normally offered below the ninth grade, superintendents from these 544 districts were the only administrators who received application forms for Vocational Education Act funds from the Division of Vocational Education. These superintendents were sent the necessary forms for fiscal years 1965 and 1966. For 1965, 143 or 26.3 per cent of the 544 eligible school districts applied for financial assistance under the new Vocational Education Act. In the succeeding year, 193 or 35.5 per cent of all eligible districts applied for funds. Consequently, during 1965 and 1966 a total of 336 applications were received. Since 104 districts applying for funds during 1965 also submitted applications for 1966 funds, the 336 applications actually represented requests from 232 different school districts. The total number of school districts requesting financial assistance during the two fiscal years of 1965 and 1966 represented 42.7 per cent of those eligible for participation.

A summary of the applications received is presented in Table 1.

TABLE 1

SUMMARY OF APPLICATIONS FOR VOCATIONAL EDUCATION
ACT OF 1963 FUNDS FOR FISCAL YEARS
1965 AND 1966

Fiscal Year	Total Eligible	Total Applications Submitted	Per Cent of Total	Applied One Year Only	Per Cent of Total Eligible Applying One Year Only
1965	544	143	26.3	39	7.2
1966	544	193	35.5	89	16.4

On the basis of applications received, the population could be divided into two distinct groups; superintendents from districts who submitted applications for one or both of the two years under consideration and superintendents from those districts who did not apply either year. The superintendents of 232 school districts were identified as belonging to the first group while superintendents from the remaining 309 school districts comprised the second. The sample used in the study was randomly selected from the two groups. In arriving at the sample size, statistical experts suggested applying the rule of thumb that "the sample size should be three times greater than the number of variables to afford the maximum degree of confidence in the statistic." Since twenty-four

variables were identified in the study, as summarized in Chapter One, a minimum of seventy-two responses was therefore deemed most appropriate. Assuming that the return would be less than 100 per cent, a sample size of 100 superintendents was randomly selected in each of the two major subgroups.

Before randomization could be effected, however, additional factors such as the wide disparity between enrollments and state equalized valuation were considered which soon led to the conclusion that a stratified random sample would most logically fit the purposes of this study.

Since other variables, such as the composition of school boards and their commitment to vocational education, are societal in nature, and consequently almost immeasurable, a study of all possible variables would be very difficult to make. As a result, the variables examined in this study were confined to those attributable directly to the superintendent or his immediate professional environment or to the operational procedures of the staff of the Division of Vocational Education.

One measurable factor which comprises a part of the superintendent's professional environment is the size of pupil enrollment. Studies by Roe,¹ McLure,² and

¹W. H. Roe, A Study of the Reimbursed Vocational Programs in Michigan, Office of Vocational Education, Department of Public Instruction, Lansing, Michigan, 1950, p. 17.

²William P. McLure et al., Vocational and Technical Education in Illinois, Tomorrow's Challenge, Bureau of Educational Research, College of Education, University of Illinois, 1960, pp. 143-144.

Kosoloski,³ to name only a few, have shown that rural high schools with smaller enrollments and more restricted physical facilities tend to offer rather limited and restricted vocational education programs. Conversely, urban school districts tend to offer more comprehensive vocational education programs. Obviously then, the physical setting from which a superintendent frames his professional decisions could affect his perception of the role to be played by vocational education in his school district. On the basis of this premise, one logical procedure for providing more homogeneity in terms of sampling practices is to stratify the sample according to student enrollment in grades nine through twelve. The 100 randomly selected superintendents were therefore stratified according to the high school enrollments in their district as reported by the Division of Research and Educational Planning of the Michigan Department of Education. At the time the sample was selected, the most current information available for school membership was the 1963-64 report. While these data were slightly outdated and therefore not entirely accurate, they were felt to be acceptable for several reasons: the data provided were uniform for all

³J. E. Kosoloski, Jr., "A Quantitative Analysis of Pennsylvania's Public School Utilization of the Provisions of Title III of the National Defense Education Act of 1958" (unpublished Doctoral dissertation, The Pennsylvania State University, 1958), p. 96.

school systems selected, annual enrollment figures do not vary a great deal from year to year, no more current data were available and each stratum was selected on the basis of a rather wide range of upper and lower enrollments which assured that a school system might vary in its rank order within the stratum but would probably not move from one stratum to another in one year.

Another obviously nonuniform variable is the amount of per pupil state equalized valuation. An examination of an additional report prepared by the Division of Research and Educational Planning indicated that no meaningful correlation exists between student enrollment and state equalized valuation. It was therefore impossible to stratify the sample on the basis of both the student enrollment and the state equalized valuation.

It might also have seemed logical to further stratify the two populations on the basis of whether the districts were conducting vocational education programs at the time application was made for the 1963 Act funds. However, in analyzing the applications received, it was discovered that 461 of the 544 schools receiving applications for reimbursement were conducting programs in vocational education. Two hundred and ten, or 90.5 per cent, of the 232 applications for 1963 Act funds were submitted by superintendents of schools already conducting programs of vocational education. Only twenty-two, or 9.5 per cent, were submitted by superintendents from school districts

wishing to offer vocational education programs for the first time. Conversely, of the remaining 312 districts which did not submit applications, 251 or 80.4 per cent were already conducting vocational education programs. Only 61, or 19.6 per cent of those which did not submit applications, offered no vocational education programs. Due to the small number of schools not offering vocational education in each of the two distinct groups, it appeared of little functional purpose to stratify according to the type of program being offered at the time applications were submitted to the Division of Vocational Education.

It was finally decided to stratify the sample on the basis of ninth through twelfth grade enrollment. Since 100 superintendents were to be randomly selected from each of the two major subgroups, those who submitted applications and those who did not, an effort was made to identify an equal number of respondents in each stratum. Strict adherence to this procedure was not possible however because applications were not received uniformly throughout all the strata. School superintendents in school districts having larger enrollments submitted the greater number of applications whereas those having the smaller student enrollments submitted fewer applications. A base number of ten superintendents was decided upon for each stratum. However, in order to obtain a sample possessing characteristics similar to the population, it was

decided to select more than ten respondents from certain strata. Consequently, thirty respondents were selected from the stratum which applied for funds and had the largest enrollment. More than ten were also selected from the strata having the largest and the smallest enrollments from those who did not apply.

The superintendents from two types of school districts were eliminated from the study. The superintendent from the Class I district in the state was not included. Two reasons made this decision seem justifiable. First, in a system as large as a Class I district, the professional staff and not the superintendent would have been responsible for the major decisions relative to participation in the Vocational Education Act of 1963. Second, since only one school district of this size is found in Michigan, no comparisons between districts could be made. In addition, the two Class II school districts in the state were also excluded from the study. This decision was made for two reasons. First, the size of these districts was so large that, as in the Class I district, the superintendent probably based his decision on the recommendations of his professional staff and not necessarily on his own beliefs. Second, school officials in both of these schools made application for funds and therefore no comparison between districts was possible.

The following table summarizes the stratum size, the population in each stratum and the sample size for each of the two subpopulations.

TABLE 2

NUMBER OF SCHOOL DISTRICTS AND SAMPLE SIZES
IN EACH ENROLLMENT STRATUM FOR SCHOOL
DISTRICTS WHICH DID OR DID NOT
SUBMIT APPLICATIONS FOR
VOCATIONAL EDUCATION
ACT OF 1963 FUNDS

Stratum Num- ber	9-12 Enrollment	Schools Submitting Applications		Schools Not Submitting Applications		Total Number in Stratum
		Num- ber	Sample Size	Num- ber	Sample Size	
1	1000 and above	76	30	20	20	96
2	800 to 999	19	10	19	10	38
3	600 to 799	30	10	19	10	49
4	500 to 599	20	10	18	10	38
5	400 to 499	27	10	34	10	61
6	300 to 399	32	10	47	10	79
7	200 to 299	15	10	57	10	72
8	199 and below	<u>10</u> 229 ^a	<u>10</u> N = 100	<u>98</u> 312	<u>20</u> N = 100	<u>108</u> 541 ^a

^aNote: The figures shown do not include the three school districts excluded from the study.

Although it was impossible to stratify the sample on the basis of both the state per pupil equalized valuation and the student enrollment it was felt that the per pupil equalized valuation of each superintendent's district was of sufficient importance to receive considerable

attention. As a result, each superintendent was randomly selected and then assigned a three digit code number. The code number assigned to each superintendent could not be used to identify the respondent as an individual, but only provided information relative to the characteristics of his professional environment. The first digit was either a zero or a one. A zero identified the superintendent as one of the 100 sampled who had not applied for funds while a 1 indicated he was one of the 100 randomly selected superintendents who had made application. The second digit ranged from one to eight and denoted the size of school district in terms of 9-12 grade student enrollment. These enrollments sizes are summarized in Table 2 above. The third digit in each code number ranged from one to seven and represented the state equalized valuation of the respondent's district as summarized in Table 3 below. A state equalized valuation of \$20,000 and above was coded with the number one while a state equalized valuation of less than \$7,000 was represented by the number seven. For example, a code number of 065 told the investigator that the respondent had not applied for funds, was employed in a school district having a 9-12 student enrollment of 300 to 399 and came from a district having a state equalized valuation of \$9,000 to \$10,999. Since 100 of the respondents were assigned the zero digit and ten came from a district having that particular 9-12 grade enrollment and seventeen came from schools having that particular state

equalized valuation, it was clearly impossible to identify a particular respondent on the basis of this assigned code number.

Since the superintendents included in the study were selected only on the basis of student enrollment, chance alone dictated the number and per cent found in each per pupil equalized valuation range.

TABLE 3
PER PUPIL STATE EQUALIZED VALUATION OF
RANDOMLY SELECTED SCHOOLS

Per Pupil State Equalized Valuation Range	Total Number of Randomly Selected Schools*	Schools Sub- mitting Appli- cations	Schools Not Sub- mitting Appli- cations	Per Cent of Sample
\$20,000 and over	22	15	7	11
15,000 to 19,999	30	11	19	15
13,000 to 14,999	19	11	8	9.5
11,000 to 12,999	37	18	19	18.5
9,000 to 10,999	40	23	17	20
7,000 to 8,999	30	13	17	15
Less than 7,000	<u>22</u>	<u>9</u>	<u>13</u>	<u>11</u>
	200	100	100	100.0

*It should be noted that although chance alone dictated the number found in each range, the overall selections closely approximated a normal bell-shaped curve.

As illustrated by Table 3, the different ranges were composed of no less than 9.5 per cent of the sample and no more than 20 per cent. Although the schools in each range

varied by a maximum of 10.5 percentage points, sufficient numbers were found in each range to allow the writer to make meaningful comparisons of superintendents employed by districts having different financial bases. Additionally, the numbers and percentages obtained in each valuation range would seem to support the contention that no observable relationship existed between the rank order of schools on the basis of student enrollment and their rank order based on state equalized valuation.

Development of the Instrument

The questionnaire was developed in three parts. Part One was comprised of eight statements designed to gather information pertaining to the superintendent. The sixty-seven statements in Part Two focused on the personal beliefs and perceptions of the superintendent relative to vocational education and the operational procedures of the Michigan Division of Vocational Education. Part Three was composed of forty-three true and false statements purporting to measure the superintendent's understanding of the Vocational Education Act of 1963. (See Appendix A.)

Part One was therefore designed to gather information relating to the superintendent's professional preparation, his administrative and teaching experience, his work experience outside the field of education and his participation in vocational education conferences.

Part Two was used to measure the superintendent's general perception of vocational education; his belief as

to how the Vocational Education Act affected public schools; his attitudes toward the kinds of written material and consultative services provided by the Division of Vocational Education; his opinions relative to the amount and effect of Federal and state funds; his knowledge of vocational certification requirements; his concept of the scope of vocational training and his reaction to funding priorities established by the Division of Vocational Education.

Finally, Part Three was focused on the superintendent's understanding of the Vocational Education Act of 1963 and was designed to determine which parts of the Act were least understood by superintendents. Presumably, such parts would need further clarification by state personnel.

Part Two of the questionnaire was developed on the assumption that five statements would be sufficient to obtain a reliable reaction of superintendents toward a specific variable under consideration. For example, statements 7, 27, 40, 65 and 66 of Part Two of the instrument were all designed to answer the question or variable, "What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act?" The belief that five statements would be sufficient to obtain a reliable measure was predicated on the fact that each of the variables was centered specifically on operating procedures currently being practiced by the Division of Vocational Education. This procedure was

followed for all but the variable dealing with the superintendent's perception of vocational education. Since this one variable was rather general in nature, it was felt that ten statements should be developed in order to obtain the most accurate responses possible.

In attempting to measure the superintendent's understanding of the Act in Part Three, it was decided that certain parts of the Act might have been better understood than others. If this were the case, a low score on the true and false test might reflect a lack of understanding of one or more of the specific provisions of the Act rather than provide a true reflection of his overall understanding. In other words, a superintendent might have a very good understanding of seven of the eleven specific sections of the Act and an almost total lack of understanding of the remaining four sections. Viewed as a composite, his overall score would be misleading since it would indicate a general lack of understanding of all provisions of the Act rather than reflect his high degree of understanding of some parts and a low understanding of others.

Accordingly, three questions were developed to measure a superintendent's understanding of each of eleven specific sections of the Act. To illustrate, statements 7, 31 and 39 were designed to measure a superintendent's understanding of the provisions of the Act relating to Trade and Industrial Education. One group of statements in Part Three was of a general nature and did not deal with any

specific section. Like the perception variable in Part Two, ten statements were developed to obtain a measure of general information relative to the Act but which did not pertain to any particular section.

Before the questionnaire could be prepared and submitted to the respondents, it was necessary to validate the instrument. Selltitz defines the validity of a measuring instrument "as the extent to which differences in scores on it reflect true differences among individuals, groups, or situations in the characteristics which it seeks to measure, or true differences in the same individual, group, or situation from one occasion to another, rather than constant or random errors."⁴ She admits however that the measure of the validity of an instrument is very hard to obtain when she states:

Nevertheless, it remains true that many--probably most--questionnaires and interviews have been used without evidence of their validity. Again, the reasons are not hard to find. It is not always easy to determine what would be appropriate criteria of validity. Even if one can identify what would constitute appropriate evidence, it may not be feasible to gather the necessary data. But without such evidence, one can only hope that his instruments are actually measuring what he believes they are measuring.⁵

As stated earlier, a questionnaire was needed which would provide the following information: the understanding

⁴Claire Selltitz, Marie Jahoda, Morton Deutsch, Stuart W. Cook, Research Methods in Social Relations, Holt, Rinehart, Winston, Inc., March, 1962, p. 155.

⁵Ibid., p. 277.

of the Vocational Education Act of 1963 possessed by school superintendents, the opinions of the superintendents relative to questions having specific interest to the Division of Vocational Education, and the professional preparation and experience of the superintendent and the characteristics of his school district.

Utilizing certain recommendations expressed by Thurstone⁶ and Edwards⁷ the following procedures were adhered to in developing the instrument. Statements were devised in sufficient numbers to provide at least half again as many as would be required on the final questionnaire. Following steps outlined by Selltitz,⁸ these statements were then evaluated to eliminate ambiguity, irrelevancy, neutrality and extremity. The refined questionnaire was then submitted to a panel of twenty-two professional consultants in the Division of Vocational Education in the Michigan Department of Education. This panel of jurors was selected for several reasons. In the first place, their most recent professional responsibilities had made them more familiar with the provisions of the 1963 Act than perhaps any other group of individuals in the state. In addition to having broad general knowledge of the

⁶L. L. Thurstone and E. J. Chave, The Measurement of Attitude, The University of Chicago Press, Chicago, Illinois, 1929, pp. 26-29.

⁷Allen L. Edwards, Techniques of Attitude Scale Construction, Appleton, Century, Crofts, Inc., New York, 1957, pp. 105-115.

⁸Selltitz, op. cit., pp. 552-574.

provisions of the Act, each is believed to have a thorough understanding of the philosophy of vocational education. Their general knowledge of the Act in particular, and vocational education in general, is further strengthened because each juror specializes in one or more of the programs offered under the provisions of the Act. And finally, their length of service with the Division of Vocational Education generally afforded them an excellent opportunity to make realistic and knowledgeable comparisons between old and new vocational education legislation. The panel of jurors was asked to evaluate the proposed instrument to determine items which should be refined, retained as written or discarded. The jurors were told the specific question which each statement was designed to answer. They were asked to select those statements which, in their opinion, would most likely elicit the superintendent's true opinions about the questions being asked. The following, for example, is a section from the instructions provided the jurors.

The final group of statements is designed to obtain a measure of the superintendent's beliefs and perceptions about what the responsibilities of the staff of the Division of Vocational Education should be as a result of the provisions of the 1963 Act.

The specific question being asked is listed at the top of the page and is underlined. Listed below the specific question are at least ten statements which attempt to answer the underlined question. Please select five of the ten or more statements provided for each underlined question.

Do superintendents view the Act as increasing national and state control?

1. The Vocational Education Act of 1963 is just one more indication of the growing problem of state and federal control of education.

2. Although the Vocational Education Act of 1963 is another example of increased state and federal control, the benefits to young people far outweigh its disadvantages.
3. The Vocational Education Act of 1963 does not increase state and national control of education.
4. Any controls of vocational education imposed on schools by the Vocational Education Act of 1963 are necessary and justified in that they assure the most equitable allocation of funds to all children of the state and nation.
5. Since federal funds are in essence only state funds being returned to the state, I do not view federal legislation aimed at expanding vocational education as a threat to local autonomy.
6. Although in practice I might accept federal funds available under the Vocational Education Act of 1963, in principle I object to federal aid to vocational education and would refuse such aid if equal funds were available from a local source.
7. Due to the high cost of vocational education, federal aid as provided in the Vocational Education Act of 1963 is the only realistic source of funds.
8. Under the concept of local autonomy, local educational agencies have been unable to provide adequate vocational education and consequently the state should increase its leadership and control in order to provide adequate programs.
9. A reduction in programs of vocational education is preferable to a loss of local autonomy.
10. Superintendents should recommend to their boards the refusal of federal funds when their acceptance becomes a real threat to local control.

Comments:

An exact replica of the materials provided the jurors is provided in Appendix B.

Seventeen of the twenty-two professional consultants responded to the preliminary questionnaire, representing a seventy-seven per cent return. The seventeen returns were then summarized and tallies made of the number who selected each statement. Selltitz lends credence to this step in the procedure when she writes, "Generally, pooling of ratings by two or more observers who are rating the same subjects tends to increase both reliability and validity."⁹ The most frequently chosen statements were then retained on the basis of the following schedule:

Those measuring perception of vocational education	10
Those measuring general understanding of the Act	10
Those measuring understanding of specific parts of the Act	33
Those measuring opinions of current operating pro- cedures of the Division of Vocational Education	<u>57</u> 110

These 110 statements were then re-examined in light of the comments and suggestions made by the seventeen responding jury members. As a result of the suggestions and comments presented, certain statements and certain groups of statements were reworded or rewritten. Particular consideration was given to the comments made by a consultant to statements dealing with his special area of interest.

A tentative form of the questionnaire was then developed. In addition to the 110 statements designed to

⁹Ibid., p. 158.

measure the superintendent's perception and knowledge of vocational education, an additional eight statements were included to obtain information about the characteristics of the superintendent and his professional environment. Each of these statements possessed several foils which allowed the respondent to merely check the answer which best described him. For example, to the question of length of employment as a teacher the superintendent simply had to place a check next to one of the following possible responses: none, 1 to 3 years, 4 to 6 years, 7 to 9 years, 10 to 12 years, or 13 years or over.

Two additional features of the questionnaire should be emphasized. First, all statements pertaining to opinions and perceptions required the superintendent to respond on a forced choice agreement-disagreement scale. The four choices in the resultant Likert-type or summated scale were Strongly Agree, Agree, Disagree and Strongly Disagree. A possible fifth choice, that of no opinion, was purposely omitted. Such a choice, while admittedly allowing for a response when no opinion has been formed, does not add much meaningful data for later statistical analysis. On the other hand, use of a four choice summated scale can create a situation whereby a respondent will elect not to answer at all rather than select a response when he actually possesses no opinion. At the same time, the procedure may tend to force the respondent to actually think about the statements and arrive at a decision relative to his opinion.

Authorities in the field differ on the value of either method which, in the final analysis, leaves the decision of choice of methods to the personal preference of the researcher.

The second feature of the questionnaire that warrants discussion is the fact that all statements relative to the superintendent's understanding of the Act, considered in Section Three of the instrument, were presented as true and false statements. In addition, a third response aside from that of true and false was added. For example, question one of Section Three was presented to the respondents as follows:

T F I 1. In Office Education, single courses as well as a series of courses are now reimbursable under the Vocational Education Act of 1963.

The format for all statements in Section Three was the same as shown in the above example. If the respondent actually did not know the answer to the statement he could circle the "I" which represented "Insufficient Information." As mentioned previously, it was felt that this procedure would accomplish at least three purposes: relieve the respondent of the feeling that he was being tested, reduce the number of times that a superintendent would fail to respond and reduce guessing thereby obtaining a more accurate measure of the true understanding possessed by the superintendents.

To avoid offending or threatening the respondents, it was made clear that the score obtained on the true or false part of the questionnaire would measure how well

personnel in the Division of Vocational Education interpreted the 1963 Act to superintendents. The respondents should, therefore, have felt that any inadequacies shown by their test scores were attributable to the staff in the Division of Vocational Education and not to them personally.

After the 110 statements were selected, the tentative questionnaire was organized, as mentioned previously, into three sections. The first section, containing eight statements dealt with the personal characteristics of the superintendent and factors in his professional environment. Section Two, composed of sixty-seven statements, dealt with the superintendent's perceptions of vocational education and opinions relative to the operating procedures of the Division of Vocational Education. The forty-three statements in Section Three were designed to measure the superintendent's understanding of the Act. The statements in Sections Two and Three were randomly assigned within each section using a table of random numbers. Hopefully, randomization here would aid in obtaining more nearly accurate responses since it was difficult to compare answers to statements pertaining to the same variables. As indicated earlier, for example, statements pertaining to the question, What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act? were randomly assigned to Section Two of the questionnaire as statements 7, 27, 40, 65 and 66.

After structuring the instrument and randomizing

the responses, sample questionnaires were submitted to four superintendents to obtain the reactions of a pre-test group. These superintendents were equally divided--two who had submitted applications and two who had not. A few revisions were suggested by these individuals and were incorporated into the final instrument.

As described previously, 100 superintendents were selected from each of the two subgroups by using a table of random numbers. The address of each was obtained from the 1964-65 edition of the Michigan Education Directory and Buyer's Guide. Each of the 200 superintendents was mailed a copy of the questionnaire, a cover letter prepared by the writer (See Appendix C), an additional cover letter endorsing the study and signed by the Acting Superintendent of the Department of Education, Mr. Alexander J. Kloster (See Appendix D), and a stamped, self-addressed envelope.

The packet of materials described above was not mailed until the first week in July of 1965. A record was kept of the number of returns received in each of the pre-selected strata described previously. During the first week of August a follow-up letter (See Appendix E) was mailed to everyone in each stratum in which at least a sixty per cent return had not been received. Another questionnaire and a third cover letter (See Appendix F) were mailed during the third week of September to all sample members in those strata in which a sixty per cent return had still not been received.

The timing of the original mailing is felt to have been a possible deterrent to the receipt of a higher per cent of returns. Applications for funds under the 1963 Act for fiscal 1965 were not due in the Division of Vocational Education until June 30, 1965. Since the study was designed to compare superintendents who did or did not submit applications for funds for the fiscal years 1964 and 1965, it was necessary to wait until after the deadline for the submission of applications before the random selection could be made. In addition, Mr. Kloster did not become Acting Superintendent until July 1, 1965, and understandably he did not wish his cover letter to be mailed prior to that date.

The summer months are obviously not the most desirable for submitting a questionnaire. Vacations, summer school, conferences and the reopening of schools all contribute to a busy schedule and undoubtedly affected the per cent of returns while resulting in a longer period of time between the original mailing, the follow-up and the final mailing than might be desirable.

The number of returns, responses by stratum and the results of the study will be described in the next chapter.

CHAPTER IV

ANALYSIS OF DATA AND PRESENTATION OF FINDINGS

Introduction

In this analysis an attempt has been made to determine which of the variables discussed in Chapter One were associated with the decisions of school superintendents to submit applications for funding under the Vocational Education Act of 1963. This determination is based upon an analysis of the responses by superintendents to the research questionnaire discussed in Chapter Three. In addition, the analysis has been conducted in a manner designed to determine whether a variable could be attributed to:

1. The superintendent's professional preparation and experience,
2. The superintendent's immediate professional environment, or,
3. The operational procedures of the Division of Vocational Education of the Michigan Department of Education.

Number and Composition of Returns

One hundred and thirty-nine, or 69.5 per cent of the 200 questionnaires mailed to superintendents, were returned. Nine of the questionnaires were incomplete and

could not be used. In addition, one questionnaire was received too late to be included in the analysis. The 129 usable questionnaires represented returns from 64.5 per cent of the 200 superintendents included in the sample. Seventy-one per cent of the 100 superintendents included in the sample, who had submitted applications for reimbursement under the Vocational Education Act of 1963, returned the questionnaire. In comparison, 58 per cent of the 100 non-applicants included in the sample responded to the questionnaire. No additional returns were received even though two follow-up letters and duplicate copies of the instrument (See Appendices D and E) were sent to superintendents who had not returned the questionnaire. Table 4 summarizes the number and per cent of returns by subpopulation and by stratum.

Ten unusable questionnaires were returned, eight of which came from superintendents in subpopulation two. Had these eight questionnaires been usable, the per cent of returns for superintendents in subpopulation two would have been increased to sixty-two per cent and strata five, seven, and eight would have contained at least a sixty per cent return. However, as mentioned previously, the overall return totaled 64.5 per cent of the study sample.

Professional Preparation and Experience
of Two Respondent-Groups of Michigan
School Superintendents

Eight variables were considered as possibly being related to the superintendent's professional preparation

TABLE 4

SAMPLE SIZE, NUMBER, AND PER CENT OF RETURNS
OF TWO SUBPOPULATIONS OF MICHIGAN SCHOOL
SUPERINTENDENTS STRATIFIED ACCORDING
TO HIGH SCHOOL ENROLLMENTS

Enrollment Strata ^c	Subpopulation One ^a			Subpopulation Two ^b		
	Sample Size	No. of Re- turns	Per Cent	Sample Size	No. of Re- turns	Per Cent
1 (1000 & over)	30	19	63.3	20	13	65
2 (800 to 999)	10	8	80	10	7	70
3 (600 to 799)	10	10	100	10	5	50
4 (500 to 599)	10	7	70	10	7	70
5 (400 to 499)	10	5	50	10	4	40
6 (300 to 399)	10	6	60	10	6	60
7 (200 to 299)	10	7	70	10	5	50
8 (199 & below)	<u>10</u>	<u>9</u>	<u>90</u>	<u>20</u>	<u>11</u>	<u>55</u>
	N = 100	71	Av. = 72.9	N = 100	58	Av. = 57.7

^aSuperintendents submitting applications

^bSuperintendents who did not submit an application

^cNumbers in parentheses denote 9-12 grade enrollment

and experience. These variables were posed in the form of questions designed to determine whether the superintendent's decision to submit an application was related to:

1. The superintendent's level of educational attainment?
2. The superintendent's length of employment by

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his current school board?

3. The superintendent's length of previous employment as a superintendent?
4. The superintendent's length of employment as a teacher?
5. The superintendent's length of employment in fields other than education?
6. The superintendent's undergraduate major?
7. The discipline in which the superintendent taught?
8. The superintendent's perception of vocational education?

The Chi square test of significance was applied to the differences in responses between the two groups of superintendents to the first five questions. These results are presented in the following five tables and the Chi square value is shown at the bottom of each table.

Of the five questions analyzed by this procedure, only question one (Table 5) showed any statistical significance.

Question one, dealing with the superintendent's level of academic preparation, was significant at greater than the .1 level. The 71 respondents who submitted applications for 1963 Act funds possessed a higher degree of academic attainment than did those who did not apply for funds. An analysis of the table shows 88.7 per cent of those who applied have taken courses beyond the Master's

Degree as compared to 72.4 per cent of those who did not apply.

TABLE 5

ACADEMIC PREPARATION POSSESSED BY TWO
RESPONDENT-GROUPS OF MICHIGAN
SUPERINTENDENTS

Academic Preparation	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
Bachelor's Degree Only	0	0
Work beyond Bachelor's Degree but less than Master's Degree	1.4	3.5
Master's Degree	8.5	24.1
Work beyond Master's Degree but less than Doctor's Degree	76.0	67.2
Doctor's Degree	12.7	5.2
No Response	1.4	0

$$x^2 = 8.731$$

$$d/f = 4$$

$$\text{Sig. level} = .10$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Two additional variables were felt to be associated with a superintendent's professional preparation and experience. These were the discipline in which he taught and his undergraduate major. The responses by the two subpopulations of superintendents to questions about their teaching experience and undergraduate majors served to

provide an insight into the types of individuals who tend to become superintendents but did not show any differences between the two groups. The 71 superintendents who applied reported 173 or an average of 2.44 different teaching assignments. The 58 superintendents who did not apply indicated 124 separate teaching assignments for an average of 2.14.

TABLE 6

LENGTH OF EMPLOYMENT BY CURRENT SCHOOL
BOARD OF TWO RESPONDENT-GROUPS OF
MICHIGAN SUPERINTENDENTS

Length of Employment (Years)	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
Less than 1	11.3	12.1
1 - 3	33.8	27.7
4 - 6	11.3	20.7
7 - 9	12.7	5.2
10 - 12	5.6	12.1
13 or over	25.3	22.3
No response	0	0

$$\chi^2 = 5.841$$

$$d/f = 5$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 7
 LENGTH OF EMPLOYMENT BY PREVIOUS SCHOOL
 BOARD OF TWO RESPONDENT-GROUPS
 OF MICHIGAN SUPERINTENDENTS

Length of Employment (Years)	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
None	39.4	46.6
1 - 3	9.9	3.5
4 - 6	15.5	18.9
7 - 9	11.3	8.6
10 - 12	5.6	5.2
13 or over	18.3	17.2
No response	0	0

$\chi^2 = 5.804$
 $d/f = 5$
 Sig. level = N. S.

^aSubpopulation one = those who applied for funds
^bSubpopulation two = those who did not apply for funds

Some superintendents in both groups reported more than one undergraduate major. The seventy-one superintendents who applied for funds reported ninety-seven separate undergraduate majors or an average of 1.37. Those who did not apply showed a similar pattern. These fifty-eight respondents reported seventy-three different undergraduate majors for an average of 1.26 per respondent. For both groups, it was found that a very small per cent either majored or taught in vocational education. On the

basis of the undergraduate majors included in the questionnaire, the so-called academic majors were most often represented in both groups. Judging from these data, persons majoring in art, music or home economics apparently do not normally become public school superintendents. The very close relationship of the academic preparation of the two groups of superintendents is shown in Table 10 by rank ordering the frequencies of their undergraduate majors.

TABLE 8
LENGTH OF EMPLOYMENT AS A TEACHER
OF TWO RESPONDENT-GROUPS OF
MICHIGAN SUPERINTENDENTS

Length of Employment (Years)	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
None	1.4	0
1 - 3	21.1	15.5
4 - 6	29.6	27.6
7 - 9	19.7	22.4
10 - 12	9.9	6.9
13 or over	15.5	24.1
No response	2.8	3.5

$$x^2 = 3.112$$

$$d/f = 6$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 9

LENGTH OF EMPLOYMENT IN FIELDS OTHER THAN
EDUCATION OF TWO RESPONDENT-GROUPS
OF MICHIGAN SUPERINTENDENTS

Length of Employment (Years)	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
None	15.5	10.3
1 - 2	14.1	27.6
3 - 4	21.1	18.9
5 - 6	11.3	13.8
7 - 8	4.2	0
9 - 10	2.8	3.5
11 - 12	0	1.7
13 or over	1.4	3.5
No response	29.6	20.7

$$\chi^2 = 9.040$$

$$d/f = 8$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

For those who applied for funds, 59.7 per cent reported undergraduate majors in one of the top three majors in order of rank. The superintendents who did not apply for funds were very similar with 54.8 per cent showing majors in the same three disciplines.

One might logically assume that an undergraduate major in vocational education would strongly influence a

TABLE 10
 NUMERICAL RANK ORDERING OF UNDERGRADUATE
 MAJORS OF TWO RESPONDENT-GROUPS
 OF MICHIGAN SUPERINTENDENTS

Undergraduate Major	Subpopulation One ^a (Frequency)	Rank	Subpopulation Two ^b (Frequency)	Rank
Social Science	24	1	22	1
Mathematics	20	2	8	3
Science	14	3	10	2
Physical Education	12	4	5	7
English	9	5	6	4
Industrial Arts	5	6	5	6
Business Education	3	7	6	5
Agriculture	2	8	4	8
Music	1	9	2	9
Art	0	10	0	10
Trade and Industrial	0	11	0	11
Home Economics	0	12	0	12
Other	7	--	6	--
TOTAL	97	--	73	--

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

superintendent's decision to submit an application. However, neither group was represented by many superintendents possessing an undergraduate major in vocational education.

In subpopulation one, of the ninety-seven undergraduate majors reported, only five or 5.3 per cent indicated an undergraduate major in one of the four areas of vocational education. The vocational preparation of superintendents in subpopulation two was similar. Ten, or 13.7 per cent, of the seventy-three undergraduate majors reported were in vocational education. Since twice as many of the superintendents who did not apply for funds reported an undergraduate major in vocational education than those who did apply, one might wonder whether a major in vocational education was associated with a negative decision toward the application for funds. The numbers are not great enough to allow one to state this as a definite conclusion, but since almost fifteen per cent of the non-applicants reported a vocational education undergraduate major it leads one to wonder whether superintendents with backgrounds in vocational education are less inclined to apply for vocational education funds.

The rank order comparison was applied to the reported teaching experiences of the respondents and is reported in Table 11.

A comparison of Tables 10 and 11 shows a great deal of similarity in the rank ordering of undergraduate majors and teaching experience of the responding superintendents. For example, social science, mathematics and science ranked one, two or three for both groups of superintendents in respect to both undergraduate major and teaching experience.

TABLE 11
 NUMERICAL RANK ORDERING OF TEACHING
 EXPERIENCES OF TWO RESPONDENT-
 GROUPS OF MICHIGAN
 SUPERINTENDENTS

Teaching Experience	Subpopulation One ^a (Frequency)	Rank	Subpopulation Two ^b (Frequency)	Rank
Social Science	37	1	33	1
Mathematics	33	2	24	2
Physical Science	21	3	21	3
Biological Science	16	4	12	5
Physical Education	16	5	11	6
English	14	6	14	4
Business Education	8	7	6	8
Industrial Arts	6	8	7	7
Agriculture	2	9	4	9
Trade and Industrial	2	10	2	10
Music	1	11	2	11
Art	0	12	0	12
Home Economics	0	13	0	13
Other	17	--	8	--
TOTAL	173	--	124	--

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Over sixty-one per cent of the superintendents who applied for funds reported teaching experiences in one of the top

three majors in respect to rank ordering. The same pattern of responses was reported by the superintendents who did not apply except that over eighty-two per cent of this group reported undergraduate majors in these three disciplines.

A comparison of teaching experiences in vocational education shows that a higher per cent of those who did not apply for funds reported having taught in vocational education. For example, twelve superintendents in subpopulation one, or 6.9 per cent, indicated experience in one of the four areas of vocational education as compared to twelve, or 9.7 per cent, of those who did not apply.

As mentioned previously in this chapter, question eight, one of the variables associated with the superintendent's professional preparation and experience, focused on the superintendent's perception of vocational education. The reader will recall that question eight asked: Was the decision to submit an application related to the superintendent's perception of vocational education? Both respondent-groups or subpopulations were asked to react to ten statements in order to secure an answer to this question. The respondent was asked to either strongly agree, agree, disagree or strongly disagree by circling one of the four choices provided. These choices of agreement were indicated as follows: Strongly Agree, SA; Agree, A; Disagree, D; and Strongly Disagree, SD.

Some of the statements were worded in such a way that the statement was positive in nature. In these instances, agreement with the statement reflected a positive

or favorable attitude. The SA choices were, therefore, given a score of four, A a score of three, D a score of two, and SD a score of one. Conversely, some of the statements were written in a negative vein. Disagreement with these statements indicated a favorable perception. Consequently, in these instances, the SD choice was rated with a score of four, D with three, A with two and SA with one. Since ten statements were developed to measure perception, a minimum score of ten and a maximum score of forty were possible. The following table shows the per cent of respondents from subpopulation one and subpopulation two who either strongly agreed, agreed, disagreed or strongly disagreed with each of the ten statements designed to measure perception of vocational education.

An analysis of the responses to each statement in Table 12 shows rather uniform responses by both subpopulation one and subpopulation two superintendents to items 29, 41, 45, 61, and 67. Minor differences were expressed by the two subpopulation respondents to the other five items. Approximately eleven per cent more of those who did not apply either disagreed or strongly disagreed that vocational-technical education should be offered in area schools or at the post-secondary level (statement three). This belief was further expressed by superintendents in subpopulation two when 14.3 per cent more of them felt vocational education at the secondary level was of little value to a well-rounded education as expressed in statement fifteen.

TABLE 12

PERCEPTION OF VOCATIONAL EDUCATION BY TWO RESPONDENT-
GROUPS OF MICHIGAN SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses									
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
3. Because of the complexity of needs of industry and business today, vocational education should be provided in specialized area vocational-technical education school facilities or at the post-high school level. ^c	21.1	24.1	35.2	43.1	33.8	29.3	9.9	3.5	0	0
15. Every student should have the benefit of a well rounded liberal education and vocational education at the secondary level does little to strengthen this concept. ^c	4.2	3.4	5.6	20.7	60.6	51.8	25.4	20.7	4.2	3.4
21. The high unemployment rate in this country can be at least partially attributed to the	5.6	8.6	32.4	34.5	49.3	39.7	12.7	17.2	0	0

TABLE 12--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses									
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
lack of a realistic vocational education program in most secondary schools.										
28. Vocational education is best suited to the low achiever. ^c	1.4	0	2.8	13.8	59.2	56.9	32.4	27.6	4.2	1.7
29. Every student, regardless of ability, should be exposed to the realities of the world of work; every student should therefore be encouraged to take some courses in vocational education to assure a well rounded educational experience.	0	0	21.1	19.0	57.8	56.9	21.1	20.7	0	3.4
41. The educational system in this country has been geared, far too long, toward the college preparatory student to the	2.8	3.4	15.5	12.1	49.3	53.4	32.4	31.1	0	0

TABLE 12--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses								
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a Gr.2 ^b
detriment of providing realistic programs of vocational education.									
45. Vocational education should be available to all people of all ages in all communities.	1.4	1.7	9.9	17.2	64.8	55.2	23.9	25.9	0 0
55. Vocational education is not a school responsibility. It can and should be provided by employers after workers enter the labor market. ^c	0	0	2.8	10.3	63.4	62.1	32.4	25.9	1.4 1.7
61. Vocational education is not meant for, and has limited or no value to, a student who has the academic capabilities to attend college. ^c	2.8	1.7	4.2	5.2	64.8	70.7	28.2	20.7	0 1.7

TABLE 12--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
67. Vocational education is in- appropriate at the secondary level since students are too young and immature to make a vocational choice. ^c	0	0	1.4	5.7	66.2	74.1
					32.4	20.7
					0	0

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

Although approximately sixty per cent of both groups indicated a belief that a lack of vocational education at the secondary level contributed to high unemployment as stated in item 21, subpopulation two superintendents tended to express this belief in stronger terms than those in subpopulation one. In response to item 28, approximately ten per cent more of those who did not apply expressed the belief that vocational education was best suited for the low achiever than did those who had applied. In answer to statement 55, more of the superintendents in subpopulation two tended to feel that vocational education was not a school responsibility.

In summary, those who did not apply had a greater tendency to perceive vocational education as the responsibility of post-secondary institutions or industry and not the responsibility of their secondary school systems. Since there was no basic disagreement between the two subpopulations on the other issues presented in the statements, it would appear that a difference of opinion about where the responsibility lies for providing vocational education, and at what level, may have had a bearing on the decision not to apply for funds for at least some of the subpopulation two superintendents.

In order to provide a summary of how superintendents perceived vocational education, the superintendent's score on each statement in Table 12 was summed to obtain an overall score for all statements pertaining to this question.

Since ten statements were provided to the general question of how vocational education was perceived, a score of 0-40 was possible for each superintendent. The method of obtaining these scores was explained earlier in this chapter.

The range of scores was then divided into four equal quartiles as shown in Table 13. A score in the first quartile (scores 0-10) reveals consistently strong disagreement with each item. Scores of 11-20 in the second quartile show consistent disagreement and indicate that the respondent had received a score of one or two on each item. The third quartile shows general agreement with the ten statements but allows for disagreement with some of them. Scores in the fourth quartile indicate that the superintendent had to obtain a score of three on each statement or one score of four for each score of two in order to average a score of three. With minor exceptions, the superintendents could be said to be in general agreement with the items in the series.

In some instances, a superintendent did not respond to one or more of the statements dealing with the general question of perception of vocational education. In order to assure that all scores were comparable, the score of any respondent who did not answer all of the statements pertaining to the question was removed from the comparison. As a result, instead of having an N of seventy-one for subpopulation one and fifty-eight for subpopulation two in the table, the N varies according to the number of superintendents who responded to each statement in the series.

The Chi square distribution was applied to the table of comparison of quartile scores. As described by McNemar,¹ the formula for fourfold tables
$$\chi^2 = \frac{N(BC-AD)^2}{(A+B)(C+D)(A+C)(B+D)}$$
 was used. McNemar² states that this formula cannot be used if any expected frequency is less than five. The expected frequency can be checked by multiplying the smaller right-hand marginal frequency in a fourfold contingency table by the smaller frequency on the bottom margin and dividing the product by N. The procedure was applied to all quartile comparison tables included in this section of Chapter Four. It was found that one of the expected frequencies would have been smaller than five in nine of the quartile comparison tables in this section if 2 x 3 tables had been used. However, by eliminating the small frequencies in either the second or fourth quartile and reducing the N's accordingly, it was possible to obtain a reliable Chi square by using 2 x 2 contingency tables. Since the frequencies eliminated were very small, it was determined that their deletion from the contingency table would have no bearing on the statistic obtained.

The per cent of responses of each of the two sub-populations on the basis of their summed scores as explained above is presented in Table 13.

¹Quinn McNemar, Psychological Statistics, 3rd edition, John Wiley and Sons, Inc., New York, 1962, p. 220.

²Ibid., p. 221.

TABLE 13

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS
BASED ON RESPONSES TO TEN STATEMENTS RELATING
TO THEIR PERCEPTION OF VOCATIONAL EDUCATION

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 64)	Subpopulation Two ^b (N = 53)
0 - 10	0	0
11 - 20	0	0
21 - 30	45.3	62.3
31 - 40	54.7	37.7

$$x^2 = .333$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Superintendents with higher scores were more positively disposed toward vocational education. Both groups scored 100 per cent in the upper two quartiles which would indicate at least a degree of positive perception toward vocational education by all concerned. As might be expected, however, seventeen per cent more of those who applied for vocational education funds scored in the upper percentile than those who did not make application for funds. This would indicate, to a degree at least, that the personal belief of a superintendent could determine

the opportunities for students to enroll in vocational education in a school district.

The Chi square value for the difference between the two groups was not great enough to be statistically significant.

Factors in the Immediate Professional
Environment of Two Respondent-Groups
of Michigan School Superintendents

Three variables were considered in relation to the superintendent's immediate professional environment. These variables were posed in the form of questions to determine whether the superintendent's decision to submit an application was related to:

1. The size of the school district in terms of ninth through twelfth grade enrollment?
2. The amount of equalized valuation of the school district?
3. His attendance at one of the regional meetings conducted by members of the State Division of Vocational Education to explain the application procedures?

Tables 14, 15 and 16 summarize high school enrollments and state equalized valuations in the school districts of the two groups of responding superintendents, as well as their attendance at regional conferences.

As revealed in Tables 14 and 15, the two groups of superintendents showed no significant difference with respect to high school enrollments and state equalized

TABLE 14

HIGH SCHOOL ENROLLMENTS IN SCHOOL DISTRICTS
OF TWO RESPONDENT-GROUPS OF MICHIGAN
SUPERINTENDENTS

9-12th Grade Enrollment	Frequency of Responses	
	Subpopulation One ^a (N = 71)	Subpopulation Two ^b (N = 58)
1000 and above	19	13
800 to 999	8	7
600 to 799	10	5
500 to 599	7	7
400 to 499	5	4
300 to 399	6	6
200 to 299	7	5
199 and below	9	11

$$\chi^2 = 2.22$$

$$d/f = 7$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

valuations of their school districts. Attendance at a regional conference by the two groups of superintendents was statistically significant as reported in Table 16. Thirty per cent more of those who applied for funds attended one of the conferences than those who did not apply.

TABLE 15

PER PUPIL STATE EQUALIZED VALUATION OF SCHOOL
DISTRICTS OF TWO RESPONDENT-GROUPS
OF MICHIGAN SUPERINTENDENTS

Per Pupil State Equalized Valuation Range	Frequency of Responses	
	Subpopulation One ^a (N = 71)	Subpopulation Two ^b (N = 58)
\$20,000 and over	4	10
15,000 - 19,999	16	10
13,000 - 14,999	3	5
11,000 - 12,999	13	8
9,000 - 10,999	14	11
7,000 - 8,999	12	8
Less than 7,000	9	6

$$\chi^2 = 6.14$$

$$d/f = 6$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

No attempt was made to determine whether the number of superintendents who applied for funds would have remained constant if the informational conferences had not been held. Since over one-half of those who did not apply attended one of the conferences, it is doubtful that attendance at a conference necessarily influenced a superintendent to submit an application for funds. Because the

TABLE 16

ATTENDANCE AT A REGIONAL CONFERENCE ON THE
VOCATIONAL EDUCATION ACT OF 1963 BY TWO
RESPONDENT-GROUPS OF MICHIGAN
SUPERINTENDENTS

Attended Conference	Subpopulation One ^a (Per Cent)	Subpopulation Two ^b (Per Cent)
Yes	83.1	53.5
No	12.7	39.6
No response	4.2	6.9

$\chi^2 = 13.809$
d/f = 2
Sig. level = .001

^aSubpopulation one = those who applied for funds
^bSubpopulation two = those who did not apply for funds

difference between the two groups was highly significant, it can be surmised that attendance was probably a contributing factor toward a positive decision.

Reactions of Superintendents to the
Operational Procedures of the
Michigan Division of Vocational Education

It was felt that certain operational procedures adopted by the staff of the Division of Vocational Education could have been associated with the superintendent's decision to apply for funds. Thirteen operational procedures were identified as variables which might have influenced the superintendent's decision to apply for funds.

These variables were posed in the form of the following thirteen questions:

1. How do superintendents perceive the Vocational Education Act of 1963 as affecting public schools?
2. What kinds of informational materials should the state office be developing to assist superintendents in implementing the Act?
3. What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act?
4. Are superintendents interpreting the Act to people of their communities or does the Division of Vocational Education need to prepare more factual materials?
5. Do superintendents view the Act as increasing Federal and/or state control?
6. Are current application forms used to request funds satisfactory?
7. Do most superintendents view the matching fund requirement as a serious obstacle to program development?
8. Do superintendents feel more state financial aid should be provided to satisfy the matching fund requirement?
9. Do superintendents adequately understand vocational teacher certification requirements so

they can best implement the provisions of the new Act?

10. Do superintendents view vocational education as training for a single skill or a family of occupations?
11. Do superintendents feel the priorities established for 1964-65 best met the needs of their schools in particular and the state in general?
12. Do superintendents adequately understand the provisions of the Vocational Education Act of 1963?
13. What parts of the Act are least understood by superintendents and need further clarification by state personnel?

The responses by both groups of superintendents to each of these thirteen questions will be analyzed and discussed in this section of the chapter.

How The 1963 Act Affected Public Schools

Question one asked: How do superintendents perceive the Vocational Education Act of 1963 as affecting public schools? Five statements were developed to measure this variable or answer this question. A summary of the responses to the five statements by superintendents in subpopulations one and two is presented in Table 17 below.

TABLE 17

PERCEPTION OF HOW THE VOCATIONAL EDUCATION ACT OF 1963
AFFECTS PUBLIC SCHOOLS BY TWO RESPONDENT-GROUPS
OF MICHIGAN SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	
2. One of the benefits derived from the Vocational Education Act of 1963 is the fact that costly vocational education programs can be partially financed with federal funds thereby leaving significantly more local funds to improve programs in general education.	7.0 12.1	69.6 41.4	15.5 34.5	9.9 10.3	0 1.7	Gr.1 ^a Gr.2 ^b
19. The provisions of the Vocational Education Act of 1963 will help schools provide a more realistic educational program to far more students than can be assisted through local efforts alone.	22.5 24.1	70.4 63.8	7.0 8.6	0 1.7	0 1.7	

TABLE 17--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses								
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a Gr.2 ^b
34. The Vocational Education Act of 1963 will allow schools to realistically meet many of the vocational needs of a far larger percentage of secondary students.	2.8	1.7	74.6	50.0	19.7	44.8	2.8	3.4	0 0
37. The Vocational Education Act of 1963 will be most beneficial to the local school system as a result of the provision to help dropouts and/or students who have graduated and desire post-high school education. ^c	7.0	3.4	42.3	37.9	43.7	39.7	0	12.1	7.0 6.9
43. The most positive aspect of the Vocational Education Act of 1963 in terms of the local	4.2	5.2	73.3	51.7	21.1	37.9	0	1.7	1.4 3.4

TABLE 17--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses			
	Strongly Disagree	Disagree	Agree	Strongly Agree
				No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2
				Gr.1 ^a Gr.2 ^b

school system is the ability to provide more comprehensive adult education programs.^c

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

An analysis of statement 19 shows that superintendents rather uniformly disagreed that the Act will provide a more realistic educational program. Approximately ninety per cent of the superintendents in both subpopulations either disagreed or strongly disagreed with this statement. However, a rather large per cent of the school administrators in subpopulation one disagreed with statements 2, 34 and 43 as compared with the superintendents in subpopulation two. In addition, no one in subpopulation one strongly agreed with statement 37 whereas slightly more than twelve per cent of the superintendents in subpopulation two strongly favored the statement. In general then, it can be said that those who applied for funds were more inclined to feel that the provisions of the Vocational Education Act of 1963 would not release more local funds for general education and would not necessarily allow schools to more realistically meet the needs of secondary students, dropouts, or adults.

In order to provide a summary of the superintendents' reactions to the five statements just discussed, the superintendent's score on each statement in Table 17 was summed to obtain an overall score for all statements pertaining to this question. Since five statements were provided to obtain an answer to the general question of how superintendents perceived the 1963 Act as affecting public schools, a score of 0-20 was possible for each respondent. Table 18 provides the summed scores for the superintendents in the

two subpopulations. Chi square values, in accordance with the procedures previously described, are recorded in Table 18 and in each summary table presented in the remainder of this chapter.

TABLE 18

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FIVE STATEMENTS RELATING TO THEIR PERCEPTION
OF HOW THE VOCATIONAL EDUCATION ACT
OF 1963 AFFECTS PUBLIC SCHOOLS

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 60)	Subpopulation Two ^b (N = 51)
0 - 5	0	0
6 - 10	1.7	3.9
11 - 15	86.8	94.2
16 - 20	11.5	1.9

$$\chi^2 = 3.14$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

A high score on this series of five statements indicates a belief that the Vocational Education Act of 1963 will improve the educational services offered by a school system. Since superintendents in subpopulation two revealed a more negative perception of vocational education

as shown in Table 13, it is not surprising to find in Table 18 that a slightly greater percentage of these superintendents also felt the 1963 Act would have an adverse effect on educational programs in their schools. On the other hand, as a result of their having obtained scores in the fourth quartile, almost ten per cent more of the administrators in subpopulation one felt the effects of the Act of 1963 would be very positive in their outcome.

Although the Chi square procedure did not show significance at the .05 level, the difference between subpopulations one and two on the effect of the 1963 Act on public schools was significant at a percentage somewhere between the .10 and the .05 levels. As such, it is worthy of note. The positive position toward the effect of the Act on public schools assumed by the superintendents who applied for funds would imply that this attitude may have been associated with the superintendent's decision to make application.

A summary of the beliefs of all responding superintendents is shown in Table 18. However, it does not allow an examination, for example, of the perception of the effect of the Act on public schools by superintendents from districts having a state equalized valuation of \$11,000 and above in comparison to superintendents who came from districts having a much smaller state equalized valuation.

Throughout the remainder of this chapter each summarized table, as illustrated by Table 18, will be followed

by five additional tables to show a comparison of the summed scores of all superintendents to the responses of superintendents when selected on the basis of:

1. Size of district in terms of high school enrollment,
2. Wealth of district in terms of per pupil state equalized valuation,
3. The superintendents' length of employment by their current school board,
4. The superintendents' length of employment by a previous school board, and,
5. The superintendents' length of employment as a teacher.

It should be noted that the number of possible ranges or stratifications on the five tables following each summary table will be less than the superintendent had to select from on the questionnaire. For example, there were eight different stratifications according to 9-12 enrollment on the questionnaire. These were as follows:

<u>Stratum Number</u>	<u>9-12 Enrollment</u>
1	1,000 and above
2	800 to 999
3	600 to 799
4	500 to 599
5	400 to 499
6	300 to 399
7	200 to 299
8	199 and below

Because of the small N's in some of these strata, an attempt

was made to obtain more uniform N's between the two subpopulations of superintendents by combining the responses from each successive pair of strata. Consequently, the succeeding tables dealing with 9-12 enrollment will have four rather than eight strata. A similar treatment was applied to tables dealing with state equalized valuation, length of employment by present board, length of employment by previous board, and length of employment as a teacher. Table 19 summarizes the new ranges or stratifications and the frequencies in each range or stratum.

Except for minor differences, an analysis of Table 20 shows a reasonable amount of uniformity between the two subpopulations. For some reason, superintendents in both subpopulations from districts having a high school enrollment of 300-499 were more negative toward the effects of the Act than their fellow administrators from either larger or smaller schools. In addition, respondents in both subpopulations from school districts having a high school enrollment of less than 300 students were slightly more prone to indicate that the 1963 Act would improve the educational services offered by a school system than were the superintendents from larger schools.

Very little uniformity in the responses of the two subpopulations is observable when analyzing Table 21. In general, it appears that superintendents who applied for funds tend to feel the effects of the Act on public schools will be positive. Those from wealthier districts express

TABLE 19

COMBINED STRATA USED IN MAKING COMPARISONS
RELATING TO TWO RESPONDENT-GROUPS OF
MICHIGAN SUPERINTENDENTS

Variable	Combined Ranges or Strata ^a	N for Sub- population One	N for Sub- population Two
9-12 grade enrollment	800 and above	27	20
	500 to 799	17	12
	300 to 499	11	10
	299 and below	16	16
State equalized valuation	15,000 and above	20	20
	11,000 to 14,999	16	13
	9,000 to 10,999	14	11
	8,999 and below	21	14
Years as Su- perintendent - present school	3 or less	32	23
	4 to 9	17	15
	10 and above	22	20
Previous em- ployment as school super- intendent	Less than 1	28	28
	1 to 6	18	13
	7 to 12	12	7
	13 and over	13	10
Length of employment as a teacher	3 or less	16	8
	4 to 6	21	16
	7 to 9	21	17
	10 and over	11	15

^aThese strata were derived by combining the original strata sizes shown in Tables 2 and 3 of Chapter Three and statements 1, 2 and 3 of the questionnaire. (See Appendix A.)

this positive attitude more strongly than those from the poorer districts. Subpopulation two superintendents reacted somewhat opposite however. Over eleven per cent of the

TABLE 20

SUMMED SCORES RECEIVED BY SUPERINTENDENTS FROM
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT
ON FIVE STATEMENTS DEALING WITH HOW THE
VOCATIONAL EDUCATION ACT OF 1963
AFFECTS PUBLIC SCHOOLS

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	0	90.0	10.0	5.8	94.2	0
500 - 799	0	100.0	0	0	100.0	0
300 - 499	11.1	77.8	11.1	12.5	87.5	0
299 and below	0	73.3	26.7	0	93.2	6.8

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

superintendents who were employed in the wealthiest districts had scores in the second or least positive quartile. Conversely, over eleven per cent of the superintendents from the poorest districts obtained scores in the fourth quartile and therefore expressed a very favorable attitude toward the effects of the Act. In general, therefore, the responses by the two groups seem too inconsistent to allow one to attempt any valid generalizations from Table 21.

TABLE 21

SUMMED SCORES RECEIVED BY SUPERINTENDENTS FROM DISTRICTS
OF VARYING STATE EQUALIZED VALUATION ON FIVE
STATEMENTS DEALING WITH HOW THE VOCATIONAL
EDUCATION ACT OF 1963 AFFECTS
PUBLIC SCHOOLS

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	0	86.6	13.4	11.1	88.9	0
11,000 - 14,999	0	83.3	16.7	0	100.0	0
9,000 - 10,999	0	92.4	7.6	0	100.0	0
Below 8,999	5.0	85.0	10.0	0	88.9	11.1

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

With rather minor exceptions, the pattern of responses in Table 22 is fairly uniform among the two subpopulations. Over ninety-five per cent of the superintendents from the two subpopulations agreed or strongly agreed with the five statements dealing with the effects of the Act on public schools. We can say then that the overwhelming majority of superintendents, regardless of their length of experience with their current board, feel the Act will favorably affect public schools.

TABLE 22

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME
ON FIVE STATEMENTS DEALING WITH HOW THE
VOCATIONAL EDUCATION ACT OF 1963
AFFECTS PUBLIC SCHOOLS

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	3.5	80.7	15.8	4.5	91.0	4.5
4 - 9	0	100.0	0	0	100.0	0
10 and over	0	84.2	15.8	5.5	94.5	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An analysis of Table 23 indicates that subpopulation one superintendents, whose experience was primarily with their current board, were more prone to strongly agree that the passage of the Vocational Education Act of 1963 would result in improved educational services in their schools. Those superintendents who had seven or more years of experience with other boards tended to assume a less positive position. The same general pattern of responses pertained for superintendents who did not apply for funds. However, only four per cent of those

TABLE 23

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH HOW THE
VOCATIONAL EDUCATION ACT OF 1963
AFFECTS PUBLIC SCHOOLS

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	0	79.2	20.8	0	96.0	4.0
1 - 6	0	87.5	11.5	0	100.0	0
7 - 12	11.0	89.0	0	0	100.0	0
13 and over	0	100.0	0	28.6	71.4	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

who had previous employment as a superintendent of less than one year scored in quartile four as compared to 20.8 per cent of the same group from subpopulation one. Conversely, 28.6 per cent of subpopulation two superintendents who had been employed by one or more additional school boards for thirteen years or more scored in the second quartile and therefore felt the provisions of the 1963 Act might actually be deleterious to their educational programs. None of the superintendents from subpopulation

one who had been employed by a previous board for thirteen years or more were concerned enough about the effects of the Act to public schools to have received scores in the second quartile.

In summary, the two subpopulations tended to show the same pattern of responses in Table 23. However, where positive responses were reflected by both subpopulations, the number of superintendents in subpopulation two who reacted favorably was considerably less. This less favorable reaction was illustrated by the lower percentage of superintendents in subpopulation two who scored in quartile four. Conversely, where more negative responses were obtained by both groups, the number reacting negatively was greater in subpopulation two as illustrated by higher percentages in quartile two.

Once again, rather scattered responses to statements dealing with how the Act affected public schools among the two subpopulations sorted on the basis of teaching experience do not allow for any particularly revealing analysis of Table 24. The differences among the quartile scores of the superintendents possessing varying amounts of teaching experience are so small that it seems unreasonable to conclude that length of teaching experience had any effect upon the responses obtained on the statements dealing with the effect to public schools resulting from the passage of the Vocational Education Act of 1963.

TABLE 24

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH HOW THE VOCATIONAL EDUCATION
ACT OF 1963 AFFECTS PUBLIC SCHOOLS

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	86.7	13.3	0	100.0	0
4 - 6	5.6	83.3	11.1	0	100.0	0
7 - 9	0	93.4	6.6	7.1	85.8	7.1
10 and over	0	80.0	20.0	0	100.0	0

^aSubpopulation one = those who applied for funds
^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

Question one has contained a complete explanation of the statistical treatment and a narrative explaining the rationale behind the development of each table. This was purposefully included with the discussion of the first variable associated with the operational procedures of the Division of Vocational Education so the reader would have concrete examples to follow as the methodology was developed. Each of the remaining questions listed on page 102 will be analyzed and discussed in the same manner as

question one. The discussion of methodology and the development of the statistical treatment will be omitted, however, since otherwise similar procedures will be used as other questions are considered.

Need for Informational Materials to Assist in Implementing the Act

Question two asked: What kinds of informational materials should the state office be developing to assist superintendents in implementing the Act? Once again, five statements were submitted to responding superintendents to obtain answers to this question. The responses to the five statements are presented in Table 25.

All items were responded to in a rather uniform manner by superintendents in subpopulation one and subpopulation two. Both groups tended to respond in the same way to all five statements. Rather uniformly, superintendents who applied for funds as well as those who did not apply indicated a need for more printed information pertaining to vocational education.

In Table 26 the responses of each of the two subpopulations of superintendents are shown on the basis of their summed scores by quartiles.

A high score on Table 26 indicates that superintendents need more informational materials to assist them in implementing the provisions of the 1963 Act. Those who did not apply appear to feel more strongly that these materials are needed as indicated by the fact that almost

TABLE 25

KINDS OF INFORMATIONAL MATERIALS THE STATE DIVISION OF
VOCATIONAL EDUCATION SHOULD BE DEVELOPING ACCORDING
TO TWO RESPONDENT-GROUPS OF MICHIGAN
SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses									
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2		
8. An analysis of the Vocational Education Act of 1963 and its relationship to other new federal Acts relating to education is badly needed by local educational agencies.	1.4	0	8.5	10.3	64.7	58.7	25.4	29.3	0	1.7
9. The Division of Vocational Education should prepare a booklet outlining the goals and objectives of vocational education in Michigan under the Vocational Education Act of 1963.	2.8	1.7	8.5	8.6	70.4	74.2	14.1	15.5	4.2	0
20. Additional guidelines which would assist local educational agencies in the	0	0	8.5	10.3	74.6	65.6	14.1	20.7	2.8	3.4

TABLE 25--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
development of sound vocational education programs as provided for in the Vocational Education Act of 1963 should be prepared by the Division of Vocational Education.	1.4 0	7.0 6.9	83.1 75.9	8.5 15.5	0 1.7
36. The Division of Vocational Education should prepare curricular guides for training in the new and emerging occupations in the labor market which are now reimbursable under the Vocational Education Act of 1963.	0 3.4	9.8 5.2	78.9 74.1	9.9 12.1	1.4 5.2
48. The Division of Vocational Education should prepare a booklet outlining the services it performs and					

TABLE 25--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
explaining how these ser- vices can be obtained in order to best implement the provisions of the Vocational Education Act of 1963.					
^a Gr. 1 = subpopulation one - those who applied for funds ^b Gr. 2 = subpopulation two - those who did not apply for funds					

ten per cent more of the respondents in subpopulation two scored in the upper quartile of Table 26 than the superintendents in subpopulation one.

TABLE 26

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE KINDS OF PRINTED MATERIALS NEEDED TO BE PROVIDED BY THE DIVISION OF VOCATIONAL EDUCATION

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 61)	Subpopulation Two ^b (N = 50)
0 - 5	0	0
6 - 10	0	0
11 - 15	81.9	72.0
16 - 20	18.1	28.0

$$x^2 = 1.85$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Tables 27 through 31 provide data showing the superintendents' responses to the five statements dealing with the types of printed materials needed when the respondents are sorted on the basis of the five factors listed on page 110.

Table 27 shows a great deal of uniformity in response

TABLE 27

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED
IN DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT
ON FIVE STATEMENTS DEALING WITH THE TYPES OF
PRINTED MATERIALS NEEDED FROM THE DIVISION
OF VOCATIONAL EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile			
	Subpopulation One ^a		Subpopulation Two ^b	
	Q3 ^c	Q4 ^d	Q3	Q4
800 and above	91.7	8.3	75.0	25.0
500 - 799	87.5	12.5	72.7	27.3
300 - 499	70.0	30.0	77.8	22.2
299 and below	63.6	36.4	75.0	25.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ3 = 3rd quartile or scores of 11-15

^dQ4 = 4th quartile or scores of 16-20

to the need for additional printed materials among superintendents from subpopulation two irrespective of the size of district in which they were employed. On the other hand, superintendents from subpopulation one reacted differently to the need for printed materials if they worked in either the largest or the smallest districts. Only 8.3 per cent of the superintendents who applied from districts having high school enrollments of 800 or more strongly agreed with the need for certain types of informational

materials as evaluated by the five statements on Table 25. Conversely, more than thirty-six per cent of the superintendents who applied for funds but are employed by districts having less than 300 high school students strongly agreed that they wanted to receive additional information from the Division of Vocational Education. Apparently then, superintendents from larger districts feel better informed of the goals and objectives of vocational education and do not feel as great a need for program development guidelines or curriculum guides as their peers from smaller districts. Perhaps this difference results from the fact that the larger districts tend to employ staff members, such as directors of vocational education, who serve in a supportive or advisory capacity to the superintendent. The superintendents from smaller districts do not generally have this assistance and therefore expressed a greater need for in-service educational devices. For those who did not apply, the fact that approximately twenty-five per cent of them, regardless of the size of their district, indicated a strong desire for these materials would imply that the Division of Vocational Education should begin to develop additional printed guides and guidelines.

As might be expected, the amount of state equalized valuation had little or no bearing on the question of the kinds of printed materials needed. Rather uniform responses were obtained among all superintendents from

TABLE 28

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING STATE EQUALIZED VALUATION
ON FIVE STATEMENTS DEALING WITH THE TYPES
OF PRINTED MATERIALS NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile			
	Subpopulation One ^a		Subpopulation Two ^b	
	Q3 ^c	Q4 ^d	Q3	Q4
\$15,000 and above	83.3	16.7	70.6	29.4
11,000 - 14,999	81.7	18.3	69.3	30.7
9,000 - 10,999	76.9	23.1	81.7	18.3
8,999 and below	84.2	15.8	66.6	33.4

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ3 = 3rd quartile or scores of 11-15

^dQ4 = 4th quartile or scores of 16-20

subpopulation one. Concomitantly, subpopulation two superintendents were also uniform in their responses regardless of the wealth of their district except that somewhat fewer superintendents from districts having a state equalized valuation of \$9,000 to \$10,999 scored in quartile four than their peers from more wealthy and less wealthy districts. There is no apparent explanation for this difference.

An analysis of Table 29 shows similar patterns of

TABLE 29

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE TYPES
OF PRINTED MATERIALS NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile			
	Subpopulation One ^a		Subpopulation Two ^b	
	Q3 ^c	Q4 ^d	Q3	Q4
3 or less	77.3	22.7	60.0	40.0
4 - 9	78.6	21.4	75.0	25.0
10 and over	85.0	15.0	83.3	16.7

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ3 = 3rd quartile or scores of 11-15

^dQ4 = 4th quartile or scores of 16-20

responses by superintendents in both subpopulations. For both groups, an inverse relationship exists between length of employment by their current school board and the superintendents' expressed interest in receiving additional printed materials. The more administrative experience possessed by a superintendent in his present position, the less interest he expressed in receiving additional printed materials from the Division of Vocational Education. This relationship held true for superintendents from both subpopulations. Irrespective of whether he

applied for funds, the superintendent with less than four years of experience was much more interested in receiving additional curriculum guides and program development guidelines than his colleague with more than a decade of experience. The less experienced superintendent who did not apply for funds was even more interested in obtaining these materials as expressed by the fact that approximately seventeen per cent more of this group scored in quartile four than his colleagues from subpopulation one who possessed the same degree of experience.

TABLE 30

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED
BY A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME
ON FIVE STATEMENTS DEALING WITH THE TYPES
OF PRINTED MATERIALS NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile			
	Subpopulation One ^a		Subpopulation Two ^b	
	Q3 ^c	Q4 ^d	Q3	Q4
Less than 1	83.3	16.7	62.5	37.5
1 - 6	80.0	20.0	69.2	30.8
7 - 12	81.7	18.3	83.4	16.6
13 and over	80.0	20.0	100.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ3 = 3rd quartile or scores of 11-15

^dQ4 = 4th quartile or scores of 16-20

It was found when analyzing Table 30 that subpopulation two superintendents who had been employed by a previous board for a period in excess of thirteen years were far less concerned about receiving additional materials. None of this latter group felt the need for additional printed information strongly enough to score in the upper quartile whereas almost thirty-eight per cent who had been employed for less than one year were found to have scored in the fourth quartile. Once again, the less experienced superintendents indicated a desire for additional materials while their more experienced colleagues expressed less and less interest as their years of experience increased. The same pattern did not prevail for superintendents who had applied for funds. Their expression of interest remained uniform irrespective of their years of experience.

Interestingly enough, according to Table 31, both groups of superintendents who had taught for three years or less were, relatively speaking, much less interested in receiving additional printed materials than their respective groups reported as a whole in Table 26. None of the respondents in this category from either subpopulation agreed strongly enough with the five statements to score in the upper quartile. With the exception of those superintendents who had the least amount of experience as a teacher, all other superintendents in subpopulation two with varying amounts of teaching experience scored about

TABLE 31

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH THE TYPES OF PRINTED MATERIALS
NEEDED FROM THE DIVISION OF
VOCATIONAL EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile			
	Subpopulation One ^a		Subpopulation Two ^b	
	Q3 ^c	Q4 ^d	Q3	Q4
3 or less	100.0	0	100.0	0
4 - 6	89.5	10.5	64.3	35.7
7 - 9	70.6	29.4	71.4	28.6
10 and over	60.0	40.0	71.4	28.6

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ3 = 3rd quartile or scores of 11-15

^dQ4 = 4th quartile or scores of 16-20

the same as the group in general, as exhibited on Table 26. Superintendents in subpopulation one showed a rather scattered pattern. The tendency exhibited was that the longer the superintendent had taught, the greater was his expressed desire for additional printed materials. This manifestation might be a logical response since the longer a superintendent had taught, the longer his time and energies would have been devoted to his subject matter rather than school administration and, consequently, the

less time he would probably have had to learn the philosophy and operational patterns of the vocational education curriculum. One can only wonder why subpopulation two superintendents did not respond in the same manner.

In summarizing the superintendents' responses recorded in the last five tables, the more experienced superintendents in subpopulation two were more negative toward the development of printed materials which might lead to the further development of vocational education in their districts than were their less experienced counterparts. Even though none of them applied for funds for the two years under consideration, it appears that the less experienced superintendents would like to receive more materials about vocational education while their more experienced counterparts do not feel a need for such information.

Need for Vocational Education Consultant Services at the State Level

Question three asked: What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act? A summary of the responses to the five statements designed to determine the kinds of consultative services needed by the responding superintendents is shown on Table 32.

Statements 7, 27, and 66 received highly uniform answers. Therefore, approximately sixty-five per cent of both groups agreed or strongly agreed with the need for

TABLE 32

KINDS OF CONSULTATIVE SERVICES NEEDED AT THE STATE LEVEL ACCORDING
TO TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses							
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response			
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
7. More consultative services should be provided by the Division of Vocational Education in homemaking to assist local educational agencies in developing courses and programs leading to wage-earning occupations.	0	5.2	33.8	31.0	54.9	51.8	11.3	10.3
	0	5.2	33.8	31.0	54.9	51.8	11.3	10.3
27. More consultative services should be provided by the Division of Vocational Education to assist superintendents in the establishment and operation of area vocational schools.	2.8	0	16.9	17.2	56.4	58.7	21.1	20.7
	2.8	0	16.9	17.2	56.4	58.7	21.1	20.7
40. More consultative services should be provided in	0	1.7	19.7	6.9	70.5	77.7	7.0	10.3
	0	1.7	19.7	6.9	70.5	77.7	7.0	10.3

TABLE 32--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
Gr.1 Gr.2 Gr.1 Gr.2 Gr.1 Gr.2 Gr.1 ^a Gr.2 ^b					

guidance to assist in implementing the provisions of the Vocational Education Act of 1963.

65. More consultative services should be provided by the Division of Vocational Education to develop programs in Adult Education as a result of increased emphasis in this area under the Vocational Education Act of 1963.	0	1.7	25.4	15.5	69.0	67.3	2.8	10.3	2.8	5.2
66. More consultative services should be provided by the Division of Vocational Education in program development for the disadvantaged	1.4	1.7	16.9	20.7	74.7	67.3	4.2	6.9	2.8	3.4

TABLE 32--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
to help implement this pro- vision of the Vocational Education Act of 1963.					

- ^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds

additional consultant services for wage-earning occupations in home economics. Over seventy-five per cent of the superintendents in both subpopulations also expressed a strong interest in additional consultant services to assist in the establishment of area vocational schools and programs for persons with special needs. Approximately thirteen per cent more of those superintendents who applied disagreed with statement number 40 than did superintendents in subpopulation two and about ten per cent more of the first group disagreed with statement 65 than did the latter. On statement 65 more of the superintendents in subpopulation two not only agreed with the statement than those superintendents in subpopulation one but almost eight per cent more of them strongly agreed than those who applied for funds. The superintendents who did not apply were, therefore, more prone to agree that more consultative services were needed in the area of guidance or to develop programs in adult vocational education. It should be noted that well over fifty per cent of both those who applied and those who did not apply approved of any type of additional consultative services.

In Table 33 the summed scores of the two subpopulations of responding superintendents are provided to five statements dealing with the types of consultative services needed. The reader is reminded that the quartile scores obtained on the following table were obtained by summing the responses to each of the statements to obtain a measure

of the amount of agreement to all five statements when considered as a whole.

TABLE 33

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE TYPES OF CONSULTATIVE SERVICES THAT SHOULD BE PROVIDED BY THE DIVISION OF VOCATIONAL EDUCATION

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 66)	Subpopulation Two ^b (N = 53)
0 - 5	0	0
6 - 10	6.2	7.5
11 - 15	69.2	71.7
16 - 20	24.6	20.8

$$\chi^2 = .206$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

In Table 33 a striking similarity can be observed between the responses of superintendents in both subpopulation one and subpopulation two to this series of statements. A small percentage of each group is opposed to additional consultative help while approximately one-fourth of each group strongly feel the need for additional services. One could probably generalize that the staff of

the Division of Vocational Education should exert additional efforts in making school visits.

The following five tables were developed to present the responses to the statements dealing with the need for additional consultant services by superintendents employed in districts of varying size and wealth in addition to possessing varying amounts of experience as a superintendent or teacher.

TABLE 34

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
CONSULTATIVE SERVICES NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	11.5	77.0	11.5	12.5	62.5	25.0
500 - 799	0	87.5	12.5	9.1	72.7	18.2
300 - 499	0	70.0	30.0	11.1	77.8	11.1
299 and below	7.7	30.8	61.5	0	86.6	13.4

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An opposite pattern of responses can be observed between the two subpopulations on Table 34. Approximately forty-five per cent more of the superintendents in subpopulation one who came from districts having less than 500 high school students scored in the fourth quartile than superintendents in subpopulation one from districts having high school enrollments greater than 500. Therefore, for those who applied for funds, a greater need for consultant services was expressed by superintendents from smaller districts and apparently, the smaller the district the greater the expressed need. Conversely, subpopulation two superintendents from the larger districts were more prone to express a stronger desire for consultant assistance than their colleagues from smaller districts. Almost directly opposite to the responses of administrators in subpopulation one, the superintendents in subpopulation two expressed greater needs for consultative services as their enrollments became greater.

Responses indicating a need for additional consultative services in Table 35 followed a very irregular pattern and therefore were very difficult to evaluate with any degree of assurance. For those superintendents who applied for funds, it appears that those employed in the most wealthy and the least wealthy districts were most desirous of additional assistance. The responses from superintendents in subpopulation two are not at all uniform. It appears

that the superintendents from the more wealthy districts are more interested in consultant assistance even though they did not apply for funds than the superintendents from districts having a state equalized valuation of less than \$11,000 per pupil.

TABLE 35

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON FIVE STATEMENTS DEALING WITH THE TYPES OF CONSULTATIVE SERVICES NEEDED FROM THE DIVISION OF VOCATIONAL EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	5.0	65.0	30.0	11.7	64.7	23.6
11,000 - 14,999	14.3	78.6	7.1	0	69.2	30.8
9,000 - 10,999	7.7	77.0	15.3	18.2	72.7	9.1
8,999 and below	0	61.1	38.9	0	83.3	16.7

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

With minor exceptions, all superintendents in subpopulation one who had been employed by their present board for varying lengths of time responded rather uniformly to the five statements pertaining to the type of consultant

TABLE 36

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
CONSULTATIVE SERVICES NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	71.5	28.5	4.5	68.2	27.3
4 - 9	11.8	70.5	17.7	24.1	53.8	23.1
10 and over	10.5	68.3	21.2	0	89.0	11.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

services needed. For some reason, superintendents from subpopulation two who reported four to nine years of employment by their current board were much more negatively disposed toward additional consultant services than other superintendents from the same subpopulation who had been employed for shorter or longer periods by their current board. At the same time, superintendents in subpopulation two who had been employed for ten years or more by their present board tended to be somewhat ambivalent. On one hand, they expressed a less favorable attitude toward

additional consultative services as exhibited by a lower percentage who scored in the fourth quartile when compared to their colleagues with less experience. On the other hand, superintendents with greater administrative experience were generally more favorable toward consultative services as illustrated by the fact that none of them scored in the second, or lowest, quartile.

TABLE 37

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
CONSULTATIVE SERVICES NEEDED FROM THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	11.2	59.2	29.6	7.7	69.2	23.1
1 - 6	6.3	81.2	12.5	8.4	66.6	25.0
7 - 12	0	80.0	20.0	14.3	57.1	28.6
13 and over	0	72.7	27.3	0	100.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

Except for small differences, a relatively high degree of uniformity of responses exists between

superintendents in subpopulations one and two on Table 37. Irrespective of the number of years of experience with a previous school board, at least eighty-five per cent of all superintendents agreed or strongly agreed that additional consultative assistance was desirable.

TABLE 38

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH THE TYPES OF CONSULTATIVE
SERVICES NEEDED FROM THE DIVISION
OF VOCATIONAL EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	11.5	77.0	11.5	16.7	50.0	33.3
4 - 6	5.0	70.0	25.0	6.6	73.4	20.0
7 - 9	5.0	75.0	20.0	6.2	68.8	25.0
10 and over	10.0	40.0	50.0	6.4	80.0	13.6

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

Table 38 shows scattered, nonuniform responses which do not reveal any general pattern and from which generalizations would be spurious.

In summarizing the responses included in these last

five tables, it can be stated that most superintendents generally favored additional consultative assistance. Those superintendents who applied for funds and were most interested in more consultative services from the Division of Vocational Education could be described as superintendents who had little experience as either a teacher or an administrator and who were employed in smaller, less wealthy districts. The superintendents who had not applied for funds but who expressed the greatest desire for consultative services could be described as possessing a relatively small amount of experience as a teacher and a superintendent but were employed in the larger, more wealthy districts.

Need for Factual Materials to Assist in Interpreting the Act

Question four asked: Are superintendents interpreting the Act to people of their communities or does the Division of Vocational Education need to prepare more factual materials? The five statements designed to answer this question are presented in Table 39 with comparisons of the responses by superintendents in subpopulations one and two.

The responses by superintendents in the two subpopulations were reasonably uniform to statement 10. Both groups rather strongly agreed that they needed additional materials to help them interpret the Act to the people of their communities. Responses to statements 31 and 62

TABLE 39

FACTUAL MATERIAL NEEDED TO BE PROVIDED BY THE DIVISION OF VOCATIONAL
EDUCATION ACCORDING TO TWO RESPONDENT-GROUPS OF
MICHIGAN SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses							
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response			
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a	Gr.2	Gr.1 ^a Gr.2 ^b
10. A well written presentation of the Vocational Education Act of 1963 which is easily understood by the layman would be very helpful to me in interpreting the Vocational Education Act of 1963 to my community.	1.4 0	5.6 1.7	67.6 58.6	25.4 39.7	0 0			
31. It has been possible to interpret the Vocational Education Act of 1963 to my community with the materials available to me. ^c	0 1.7	53.5 39.7	38.1 51.7	4.2 5.2	1.7			
46. There is a very real need for more prepared materials to assist me in interpreting	2.8 1.7	32.4 15.5	54.9 58.6	8.5 19.0	1.4 5.2			

TABLE 39--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b	
the Vocational Education Act of 1963 to my community.						
62. The Vocational Education Act of 1963 has been very well interpreted to local school systems. ^c	0 0	33.8 17.2	47.9 62.2	14.1 17.2	4.2 3.4	
63. If more materials to assist in interpreting the Vocational Education Act of 1963 to my community had been available earlier, my school system would have been able to take better advantage of the funds available under the Vocational Education Act of 1963 for fiscal 1964-65.	7.0 3.4	49.3 34.5	33.8 46.6	8.5 10.3	1.4 5.2	

^aGr. 1 = subpopulation one - those who applied for funds^bGr. 2 = subpopulation two - those who did not apply for funds^cNegative statement - order of agreement reversed

indicate that the superintendents who applied for funds were much more critical of the materials available at the time they applied than those who had not applied. For some reason, however, many of those who applied contradicted themselves in response to statements 46 and 63 when they indicated there was no need for more prepared materials to assist them in interpreting the Act to members of their community. Those who applied apparently feel therefore that the provisions of the Vocational Education Act of 1963 were not well interpreted to members of their communities but that more explanatory materials would not solve the problem.

The summed responses by both subpopulation respondents to the five statements in Table 39 are presented in Table 40. A score approaching twenty indicates a strong belief that additional materials should be prepared to assist the superintendents in interpreting the Vocational Education Act of 1963 to their communities. Approximately ninety-five per cent of the superintendents who applied for funds and 100 per cent of the superintendents who did not apply scored in the upper two quartiles. It would appear, therefore, that both groups of administrators agreed that additional materials should be provided. Interestingly enough, however, 12.7 per cent more of the superintendents in subpopulation two scored in the upper quartile than the superintendents in subpopulation one, indicating that those who did not apply felt a stronger need for additional information.

TABLE 40

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FIVE STATEMENTS RELATING TO THEIR BELIEFS
CONCERNING THE NEED FOR THE DIVISION
OF VOCATIONAL EDUCATION TO PREPARE
MORE FACTUAL MATERIALS

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 66)	Subpopulation Two ^b (N = 53)
0 - 5	0	0
6 - 10	4.5	0
11 - 15	74.3	66.1
16 - 20	21.2	33.9

$$\chi^2 = .821$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

The following five tables once again reveal the responses to the statements in Table 39 by the two groups of superintendents on the basis of the five additional variables used throughout this portion of the chapter.

Scores of superintendents in subpopulation one, analyzed on the basis of varying high school enrollment, were reasonably uniform regardless of the size of the superintendent's district. Of those who did not apply, however, superintendents from districts having 500 or

TABLE 41

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
FACTUAL MATERIALS WHICH SHOULD BE
PREPARED BY THE DIVISION OF
VOCATIONAL EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	5.3	73.9	21.8	0	56.2	43.8
500 - 799	5.8	76.5	17.7	0	50.0	50.0
300 - 499	0	70.0	30.0	0	88.9	11.1
299 and below	0	80.0	20.0	0	75.0	25.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

more high school students indicated considerably more interest in receiving additional interpretive information than the superintendents in subpopulation two from districts with fewer than 500 high school students. An average of forty-seven per cent of all superintendents in subpopulation two from the districts having more than 500 high school students scored in the fourth quartile in comparison to an average of only eighteen per cent for those from districts having less than 500 high school

students. Superintendents in subpopulation two who came from larger school districts therefore expressed a much greater interest in additional informative materials than their peers from smaller districts.

TABLE 42

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON FIVE STATEMENTS DEALING WITH THE TYPES OF FACTUAL MATERIALS WHICH SHOULD BE PREPARED BY THE DIVISION OF VOCATIONAL EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	0	76.5	23.5	0	66.6	33.4
11,000 - 14,999	14.3	57.1	28.6	0	58.3	41.7
9,000 - 10,999	0	78.5	21.5	0	63.6	36.4
8,999 and below	0	85.0	15.0	0	75.0	25.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

In general, comparisons of Tables 40 and 42 indicate that subpopulation one and subpopulation two superintendents employed in districts possessing varying amounts of wealth responded in approximately the same way as their

respective groups when considered without regard to state equalized valuation. The only difference of note in Table 42 was expressed by superintendents in both subpopulations whose districts possessed less than \$9,000 state equalized valuation. The superintendents were considerably less interested in additional factual materials, as expressed by their lower percentages in quartile four, than the other superintendents in their respective subpopulations who were employed in wealthier districts.

TABLE 43

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
FACTUAL MATERIALS WHICH SHOULD BE
PREPARED BY THE DIVISION OF
VOCATIONAL EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	3.4	79.3	17.3	0	40.9	59.1
4 - 9	0	66.3	33.4	0	81.8	18.2
10 and over	4.7	76.2	19.1	0	85.0	15.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

Superintendents in subpopulation two who had three or less years of employment by their present board exhibited a strong desire for more interpretive materials. Of this group, 59.1 per cent scored in the highest quartile which was 44 per cent more than those with a decade or more of experience. Apparently then, the longer a superintendent had been employed by his present board, the less interested he was in receiving additional factual materials prepared by the staff of the Division of Vocational Education.

No major differences appeared between subpopulation one superintendents when comparing Table 43 to Table 40 except that, for some reason, those superintendents in subpopulation one who had been employed for from four to nine years by their current board exhibited almost twice as strong a desire for additional factual material than their more experienced or less experienced colleagues.

An analysis of Table 44 indicates that superintendents in subpopulation one responded in a rather uniform manner to the five statements under consideration regardless of length of employment by a previous school board. Superintendents from subpopulation two, on the other hand, responded in such a varied fashion on the basis of length of previous employment that no valid generalizations can be made in regard to their desire for additional factual materials.

Both subpopulation one and subpopulation two

superintendents who taught for less than four years tended to be less interested in the receipt of additional materials than superintendents from their respective subpopulations who had over four years of teaching experience. On the basis of length of employment as a teacher, subpopulation one and subpopulation two superintendents from the other three categories in Table 45 responded in about the same manner to the need for additional factual materials.

TABLE 44

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE TYPES OF
FACTUAL MATERIALS WHICH SHOULD BE
PREPARED BY THE DIVISION OF
VOCATIONAL EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	7.1	71.5	21.4	0	64.0	36.0
1 - 6	0	76.5	23.5	0	77.0	23.0
7 - 12	0	80.0	20.0	0	50.0	50.0
13 and over	10.1	72.7	18.2	0	81.8	18.2

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 45

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH THE TYPES OF FACTUAL MATERIALS
WHICH SHOULD BE PREPARED BY THE DIVISION
OF VOCATIONAL EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	85.7	14.3	0	83.3	16.7
4 - 6	5.0	75.0	20.0	0	73.3	26.7
7 - 9	10.3	68.4	21.3	0	53.3	46.7
10 and over	9.1	72.7	18.2	0	66.6	33.4

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

In summary, the more experienced superintendents from subpopulation two who were employed by smaller school districts did not express a very strong interest in receiving more informative materials. Additional factual materials were most desired by superintendents who did not apply for funds if they came from school districts with larger 9-12th grade enrollments but possessed relatively less administrative experience. The latter group of superintendents therefore seem to be actively seeking more

informative materials. The development of such information by the State Division of Vocational Education might therefore help these superintendents to decide to apply for funds at a later date.

Increased Federal And/Or State Control

Question five asked: Do superintendents view the Vocational Education Act of 1963 as increasing Federal and/or state control? The five statements developed to answer this question and the superintendents' responses are presented in Table 46.

A comparison of responses to the statements in the following table shows a rather high degree of uniformity to statements 12, 14 and 39. Over eighty per cent of the superintendents in both subpopulations one and two agreed with statement 12 and therefore felt any federal or state control implied by the Act was greatly offset by its advantages. At the same time, approximately sixty-five per cent of both groups showed in response to statement 14 that they felt federal vocational education legislation did not serve as a threat to local autonomy and therefore was not a source of federal and state control. The same general pattern of responses prevailed for statement 39 as was demonstrated toward statements 12 and 14.

Statements 6 and 47 were responded to in a slightly different manner by the superintendents. Although over one-half of the respondents from each group showed little concern that enactment of the Vocational Education Act of 1963

TABLE 46

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
TOWARD A POSSIBLE INCREASE OF FEDERAL AND/OR STATE CONTROL
RESULTING FROM THE VOCATIONAL EDUCATION ACT OF 1963

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
6. The Vocational Education Act of 1963 is just one more indication of the growing problem of state and federal control of education. ^c	2.8 12.1	25.4 31.0	52.1 50.0	18.3 6.9	1.4 0
12. Although the Vocational Education Act of 1963 is another example of increased state and federal control, the benefits to young people far outweigh its disadvantages. ^c	19.7 19.0	64.8 63.8	7.1 15.5	2.8 0	5.6 1.7
14. Since federal funds are in essence only state funds being returned to the state, I do not view federal legislation aimed at expanding	4.2 6.9	25.4 27.6	59.2 51.7	9.8 12.1	1.4 1.7

TABLE 46--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					No Response
	Strongly Disagree	Disagree	Agree	Strongly Agree		
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b	
vocational education as a threat to local autonomy.						
39. Due to the high cost of voca- tional education, federal aid as provided in the Vocational Education Act of 1963 is the only realistic source of funds.	5.6 6.9	33.8 34.5	47.9 51.7	9.9 5.2	2.8 1.7	
47. Under the concept of local autonomy, local educational agencies have been unable to provide adequate vocational education and consequently the state should increase its leadership and control in or- der to provide adequate pro- grams.	5.6 13.8	45.1 29.3	42.3 41.4	4.2 12.1	2.8 3.4	

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

was leading to further state and federal control, those not applying for funds expressed this belief less strongly than those who applied. This observation is supported by the fact that approximately twelve per cent more of the superintendents in subpopulation one strongly disagreed with statement six than the superintendents in subpopulation two. The pattern of responses is so varied to statement 47 that it leads one to question the validity of the statement. In retrospect, it appears to be ambiguous. One must still question, however, whether the respondents opposed the idea that adequate vocational education had not been provided or the idea that more state control was in order since both thoughts were included in the statement.

Table 47 provides a compilation of the summed responses by both groups to all five statements. A high score on Table 47 indicates that the superintendents held no fear of increased national or state control resulting from the Vocational Education Act of 1963. Only a slight difference was indicated in the feelings of the superintendents from the two subpopulations. Superintendents in subpopulation two indicated just slightly more concern than did those who made application for funds. In general however, on the basis of the five statements shown in Table 46, the majority of both groups was not particularly concerned about increased federal or state control resulting from the Vocational Education Act of 1963.

TABLE 47

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT
THE 1963 ACT INCREASING FEDERAL AND/OR
STATE CONTROL OF EDUCATION

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 64)	Subpopulation Two ^b (N = 53)
0 - 5	0	0
6 - 10	14.1	18.8
11 - 15	82.7	81.2
16 - 20	3.2	0

$$x^2 = .60$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

The following five tables provide a comparison of the responses of the two groups categorized according to varying enrollments and wealth of their respective districts as well as their varying lengths of experience as superintendents and teachers.

According to Table 48, superintendents in subpopulation one tended to respond in about the same manner regardless of the size of their school district's high school enrollment. For some reason, superintendents in

TABLE 48

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE 1963 ACT INCREASING FEDERAL
AND/OR STATE CONTROL OF EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	12.5	87.5	0	12.5	87.5	0
500 - 799	13.6	80.0	6.4	33.4	66.6	0
300 - 499	10.0	80.0	10.0	100.0	0	0
299 and below	20.3	79.7	0	18.8	81.2	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

subpopulation two who came from the two middle categories of school enrollment were much more likely to feel that the 1963 Act presented a danger of federal and state control. As a matter of fact, all those superintendents from districts having a high school enrollment of 300-499 were found to have scored in the second quartile thereby indicating their concern about increased control. One might logically expect the superintendents from the smallest districts to reveal a similar concern. They, however,

TABLE 49

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON
FIVE STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE 1963 ACT INCREASING FEDERAL
AND/OR STATE CONTROL OF EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	10.5	89.5	0	23.5	76.5	0
11,000 - 14,999	23.1	76.9	0	23.1	76.9	0
9,000 - 10,999	7.2	92.8	0	0	100.0	0
Below 8,999	16.7	72.2	11.1	25.0	75.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

expressed less concern, as exhibited by the per cent who scored in the second quartile, than superintendents from districts with high school enrollments of 500 to 799.

With the exception of those respondents from districts having a state equalized valuation of \$9,000 to \$10,999, all superintendents in subpopulation two scored in a rather uniform manner to the five statements shown in Table 46. Consequently, with the exclusion of the exception cited above, approximately twenty-five per cent

of all other superintendents in subpopulation two expressed a rather high degree of concern over increased federal and/or state control resulting from the 1963 Act.

Superintendents from subpopulation one tended to show rather widely scattered responses in the second and third quartiles. It is interesting to note that the most pronounced concern over the 1963 Act increasing federal and state control came from superintendents in the least wealthy districts who had applied for funds. This might imply that these superintendents have allowed their desire for additional money to operate programs to somehow overcome their fear of the potential control to their districts resulting from the acceptance of these funds. Because of the relatively small percentage of responses in the fourth quartile, this is merely conjecture on the writer's part. Much more data would have to be collected before such a statement could be considered anything more than supposition. This finding suggests an area for further study however.

According to Table 50, superintendents in subpopulation two demonstrated a growing concern over increased federal and/or state control resulting from the 1963 Act the longer they had been employed by their current board of education. The superintendents in subpopulation one showed relatively wide variation in their responses but, rather consistently, they indicated concern over increased control. Less experienced superintendents in this group expressed

the least amount of concern over increased controls of vocational education resulting from the passage of the new Act.

TABLE 50

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE 1963 ACT INCREASING FEDERAL AND/OR STATE CONTROL OF EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	6.9	89.6	3.5	13.6	86.4	0
4 - 9	26.7	73.3	0	15.4	84.6	0
10 and over	15.0	80.0	5.0	27.7	72.3	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

In Table 51 superintendents in subpopulation one again demonstrated a fairly high degree of consistency in their responses to the question of increased control. The length of time they had been employed by a previous board apparently had little influence on the superintendents' responses. Once again, subpopulation two superintendents expressed much more concern over increased control if they

had been employed by a previous board for more than six years. The less experienced superintendents were much less fearful of this possibility.

TABLE 51

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE 1963 ACT INCREASING FEDERAL
AND/OR STATE CONTROL OF EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	11.5	80.7	7.8	19.3	80.7	0
1 - 6	18.8	81.2	0	8.3	91.7	0
7 - 12	9.1	90.9	0	28.6	71.4	0
13 and over	18.2	81.8	0	25.0	75.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

The data in Table 52 indicate that the superintendents in both subpopulations who possessed the least amount of teaching experience had a greater tendency to fear increased federal and state control resulting from the Vocational Education Act of 1963.

In summarizing the attitudes of superintendents to

TABLE 52

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
RELATING TO THEIR BELIEFS ABOUT THE 1963
ACT INCREASING FEDERAL AND/OR STATE
CONTROL OF EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	28.6	71.4	0	28.6	71.4	0
4 - 6	10.0	90.0	0	28.6	71.4	0
7 - 9	11.8	82.3	5.9	14.3	85.7	0
10 and over	18.2	72.7	9.1	13.4	86.6	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

the question of increased federal and/or state control resulting from the passage of the Vocational Education Act of 1963, approximately fifteen per cent of the superintendents in each subpopulation expressed concern over this possibility. The superintendents who demonstrated the greatest concern from subpopulation one tended to be those administrators who had the greatest amount of experience and were employed in the smallest school districts. Size and wealth of district apparently were not associated with the

expressed concerns of superintendents who did not apply for funds. For this group, as shown with superintendents from subpopulation one, those superintendents from the smallest districts expressed the greatest concern over increased control.

Superintendents' Satisfaction With Application Forms

Question six asked: Are current application forms used to request funds satisfactory? There were seven statements developed to answer this question. Since the superintendents' satisfaction with the application forms for two different years was evaluated in this study, two of the statements were repeated with a different year designated in the statement. As a result, each superintendent could obtain a maximum of twenty-eight points on this series of statements. The seven statements and the subpopulation response to each are presented in Table 53.

Responses to item 16 were uniform except that over twice as high a percentage of the superintendents who applied disagreed strongly that the application forms were indications of increased state and/or federal control. The responses by the two groups to item 24 were fairly uniform. Over seventy-five per cent of each group agreed or strongly agreed with the need for regional conferences.

Almost twenty per cent more of those who did not apply either disagreed or strongly disagreed with statement 25 when compared to those who applied. Over one-half

TABLE 53

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
REGARDING THE ADEQUACY OF APPLICATION FORMS USED TO
REQUEST VOCATIONAL EDUCATION FUNDS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses							
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response			
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
16. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were another indication of the increased control being exerted by state and federal regulations. ^c	4.2	5.2	25.4	29.3	59.1	56.9	11.3	5.2
							0	3.4
24. Due to the complexity of the current program available in vocational education, application forms and informational material cannot be adequately interpreted without the benefit of regional informational meetings conducted by personnel	5.6	1.7	16.9	12.1	64.8	62.1	12.7	18.9
							0	5.2

TABLE 53--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b	
of the Division of Vocational Education.						
25. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were un- necessarily detailed. ^c	11.3	6.9	22.5	44.8	60.6	43.1
				1.4	0	4.2
						5.2
26. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1965-66 were un- necessarily detailed. ^c	12.7	8.6	23.9	43.1	56.4	41.4
				2.8	0	4.2
						6.9
32. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 and the	2.8	3.4	39.4	53.4	49.4	39.8
				1.4	0	7.0
						3.4

TABLE 53--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1aGr.2b
attached explanation were in- formative and easily under- stood.					
33. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1965-66 and the attached explanation were in- formative and easily under- stood.	4.2	3.4	26.8	55.2	59.1 36.2 1.4 0 8.5 5.2
44. To adequately plan for pro- gram improvements, local school systems should be giv- en a minimum of two months be- tween the receipt of applica- tions and the due date.	0	0	7.0	13.8	74.7 60.4 18.3 24.1 0 1.7

aGr. 1 = subpopulation one - those who applied for funds

bGr. 2 = subpopulation two - those who did not apply for funds

cNegative statement - order of agreement reversed

of those who did not apply felt the forms were unnecessarily detailed. Both groups of superintendents responded similarly when asked to react to the forms used to request funds during the second year they were available. Both groups, therefore, responded in much the same way to item 26 as they had to item 25.

Almost fifteen per cent more of those who did not apply, when compared to those who did, felt the forms and informational materials supplied the first year were not informative and easily understood. Apparently the superintendents in subpopulation two felt that the forms used the second year were even more confusing. Almost twenty-eight per cent more of those who did not apply were disgruntled with the forms made available the second year than their colleagues who applied for funds. As might be expected, administrators who did not apply were not only more critical than those who applied but also felt the forms were a little less informative the second year. This difference in reaction could have resulted from the fact that those who applied had, by necessity, spent more time with both the forms and the explanations than their counterparts who did not apply for funds and were therefore better able to supply a more realistic evaluation of the forms.

Finally, slightly more of those who applied seemed to indicate that two months or more should elapse between receipt of the application form and the date these forms were due in the Division of Vocational Education.

Superintendents in subpopulation two, to a small degree, seemed to require less time between the two events.

Table 5⁴ shows the summated responses of both subpopulations to the seven statements dealing with the adequacy of the application forms.

TABLE 5⁴

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
SEVEN STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE FORMS USED TO REQUEST FUNDS

Summed Score by Quartile ^a	Per Cent of Superintendents by Quartile	
	Subpopulation One ^b (N = 61)	Subpopulation Two ^c (N = 50)
0 - 7	0	0
8 - 14	9.7	6.0
15 - 21	73.9	86.0
22 - 28	16.4	8.0

$$x^2 = 2.03$$

$$d/f = 1$$

Sig. level = N. S.

^aSeven statements in this section result in a maximum score of twenty-eight points.

^bSubpopulation one = those who applied for funds

^cSubpopulation two = those who did not apply for funds

A strong agreement by a superintendent that application forms were satisfactory would be reflected by a high score on Table 5⁴. On a percentage basis, twice as many of those who applied scored in the upper quartile than

superintendents who did not apply. This finding may indicate that those who received forms and applied for funds were quite satisfied with their composition. Conversely, slightly more of the superintendents in subpopulation one were somewhat dissatisfied with the forms. Their responses might reflect the fact that more of them actually filled out the forms and therefore could respond from personal experience.

The superintendents' responses to the seven statements clearly indicated that those superintendents who did not apply for funds were more critical of the application forms. Table 54, which reflects the summed responses to all seven statements, confirms this observation and also illustrates that a small percentage of those who applied for funds were even less impressed with the forms than those who did not apply. In general, however, it appears that the forms were generally judged satisfactory by those who applied.

The following five tables will summarize the responses by both groups of superintendents when sorted on the basis of the five additional variables listed on page 110.

According to Table 55, the responses by superintendents from both of the subpopulations are very similar in quartile three to the percentages shown for the same quartile in Table 54. The major differences occur in quartiles two and four. Among respondents in subpopulation one, the

TABLE 55

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
SEVEN STATEMENTS DEALING WITH THE ADEQUACY
OF APPLICATION FORMS DEVELOPED BY THE
DIVISION OF VOCATIONAL EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	15.0	75.0	10.0	0	87.5	12.5
500 - 799	6.2	75.0	18.8	10.0	90.0	0
300 - 499	20.0	70.0	10.0	0	75.0	25.0
299 and below	0	73.4	26.6	12.5	87.5	0

^aSubpopulation one = those who applied for funds
^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 8-14

^dQ3 = 3rd quartile or scores of 15-21

^eQ4 = 4th quartile or scores of 22-28

percentages of responses in quartile two vary from zero for those from the smallest districts to twenty per cent in the next to the smallest districts. Therefore, no consistency of responses to the question of adequacy of application forms can be observed. The same inconsistency is apparent for quartile four. Superintendents from subpopulation two showed the same pattern of inconsistent responses in the second and fourth quartiles. Due to the inconsistency of responses, no generalized differences in responses

to the adequacy of the application forms can be observed as a result of the superintendents coming from varying sized districts, regardless of whether they did or did not apply for funds.

TABLE 56

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON SEVEN STATEMENTS DEALING WITH THE ADEQUACY OF APPLICATION FORMS DEVELOPED BY THE DIVISION OF VOCATIONAL EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	13.3	73.4	13.3	11.8	88.2	0
11,000 - 14,999	0	78.6	21.4	0	72.7	27.3
9,000 - 10,999	0	91.7	8.3	0	91.0	9.0
Below 8,999	20.0	60.0	20.0	9.0	91.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 8-14

^dQ3 = 3rd quartile or scores of 15-21

^eQ4 = 4th quartile or scores of 22-28

Once again, so much discrepancy in the responses to the question of adequacy of forms is observed in Table 56 that no distinctive pattern emerges in either subpopulation on the basis of wealth of district.

TABLE 57

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
SEVEN STATEMENTS DEALING WITH THE ADEQUACY
OF APPLICATION FORMS DEVELOPED BY THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	11.4	69.2	19.4	8.7	82.6	8.7
4 - 9	12.5	81.3	6.2	0	100.0	0
10 and over	5.3	73.7	21.0	6.2	81.3	12.5

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 8-14

^dQ3 = 3rd quartile or scores of 15-21

^eQ4 = 4th quartile or scores of 22-28

TABLE 58

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
SEVEN STATEMENTS DEALING WITH THE ADEQUACY
OF APPLICATION FORMS DEVELOPED BY THE
DIVISION OF VOCATIONAL EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	7.7	65.4	26.9	13.0	87.0	0
1 - 6	6.2	75.0	18.8	0	84.6	15.4
7 - 12	10.0	90.0	0	0	85.7	14.3
13 and over	22.2	77.8	0	0	85.7	14.3

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 8-14

^dQ3 = 3rd quartile or scores of 15-21

^eQ4 = 4th quartile or scores of 22-28

An analysis of Tables 57, 58 and 59 and a comparison of these three tables to Table 54 show a scattered pattern of responses by superintendents in both subpopulations one and two to the statements questioning their beliefs about the adequacy of the application forms developed for fiscal years 1965 and 1966.

Apparently, therefore, neither the number of high school students, the wealth of the district nor the lengths of administrative or teaching experience had any bearing

on the responses of the superintendents from either subpopulation to the statements dealing with the adequacy of the application forms.

TABLE 59

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON SEVEN STATEMENTS
DEALING WITH THE ADEQUACY OF APPLICATION
FORMS DEVELOPED BY THE DIVISION
OF VOCATIONAL EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	84.6	15.4	0	100.0	0
4 - 6	10.5	79.0	10.5	7.2	85.6	7.2
7 - 9	25.0	62.5	12.5	6.6	73.4	20.0
10 and over	0	63.6	36.4	7.6	92.4	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 8-14

^dQ3 = 3rd quartile or scores of 15-21

^eQ4 = 4th quartile or scores of 22-28

Obstacles Generated by the Matching Fund Requirement of the 1963 Act

Question seven asked: Do most superintendents view the matching fund requirement as a serious obstacle to program development? The superintendents' responses to the five statements designed to answer this question are summarized in Table 60.

TABLE 60

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
REGARDING THE MATCHING FUND REQUIREMENT OF THE
VOCATIONAL EDUCATION ACT OF 1963

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
18. A flat reimbursement rate for all phases of vocational education is unrealistic. Reimbursement rates should vary according to a district's ability to provide local funds.	5.6	8.6	11.3	24.1	60.6	46.6
	21.1	20.7	1.4	0		
54. The requirement of the Vocational Education Act of 1963 for local schools to match federal funds at at least fifty per cent works a greater hardship on small school systems than on the large systems.	2.8	0	32.4	15.5	39.5	41.4
	23.9	39.7	1.4	3.4		
56. A fifty per cent reimbursement rate is still not	4.2	1.7	29.6	17.3	38.0	51.7
	26.8	29.3	1.4	0		

The superintendents in both subpopulations responded similarly to statement 60. However, superintendents in subpopulation two reacted more negatively to item 18 than those who applied. Approximately fourteen per cent more of those who did not apply disagreed with the statement and therefore felt reimbursement should not be based on a district's ability to provide local funds. On the other hand, approximately sixteen per cent more of the superintendents in subpopulation two chose to strongly agree with statement 54 than the superintendents who applied for funds. More of those who did not apply therefore felt the matching fund requirement penalized the small school systems. Item 56 elicited almost a thirteen per cent more positive response from superintendents in subpopulation two than it did from superintendents in subpopulation one. Those who did not apply were therefore more prone to feel that more than a fifty per cent reimbursement rate was necessary to provide an adequate vocational education program. Finally, approximately fourteen per cent more of the superintendents in subpopulation two chose to disagree with statement 58 than superintendents in subpopulation one. Apparently then, those who applied were more inclined to favor a flat reimbursement rate, did not feel the fifty per cent reimbursement rate penalized the small school systems, tended to feel the fifty per cent reimbursement from federal funds was sufficient and were more receptive to the idea that adequate programs of vocational

education could now be provided as a result of the passage of the Vocational Education Act of 1963.

Table 61 shows the summed responses of both subpopulations to the five statements dealing with the matching fund provision of the Vocational Education Act of 1963.

TABLE 61

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE MATCHING FUND REQUIREMENT AND ITS EFFECT ON PROGRAM DEVELOPMENT

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 67)	Subpopulation Two ^b (N = 55)
0 - 5	0	0
6 - 10	4.5	5.5
11 - 15	56.6	58.2
16 - 20	38.9	36.3

$$x^2 = .056$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

A score approaching twenty indicates that superintendents felt the matching fund requirement was a serious obstacle to program development. As it is revealed in Table 61, the summed scores of the superintendents in each

subpopulation were quite similar. Approximately ninety-five per cent of each group of superintendents felt the matching requirement provided some degree of hindrance to program development and slightly over one-third of each group felt this strongly. Those who applied and those who did not are generally agreed that the matching fund requirement is a hindrance. It is interesting to note however that the analysis of separate items on Table 60 reflected relatively more concern by those who did not apply than is expressed in Table 61.

The results obtained on the basis of the five environmental and professional characteristics of the superintendents used throughout this chapter are presented in Table 62 through 66.

When comparing Tables 62 and 63 some rather predictable results were observed for both subpopulations. Superintendents in subpopulations one and two who came from the larger (800 and above 9-12 enrollment) and more wealthy (\$15,000 and above state equalized valuation) districts were much less concerned about their districts having to provide matching funds than responding superintendents in smaller, less wealthy districts. On the other hand, superintendents from both subpopulations one and two who came from districts with enrollments less than 299 and state equalized valuation less than \$8,999 were much more concerned about the matching fund requirement. The high numerical scores compiled by these superintendents

indicated that they had a high degree of concern about having to provide matching funds to receive financial benefits from the Vocational Education Act of 1963.

TABLE 62

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE MATCHING FUND REQUIREMENT AND ITS EFFECT ON PROGRAM DEVELOPMENT

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	8.0	76.0	16.0	11.0	67.0	22.0
500 - 799	0	58.8	41.2	0	60.0	40.0
300 - 499	0	40.0	60.0	0	40.0	60.0
299 and below	6.6	33.4	60.0	4.6	40.9	54.5

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An examination of Table 64 reveals that superintendents from both subpopulations one and two who had been employed for over ten years by their present board were much less concerned about the matching fund requirement than less experienced superintendents. Over fifty per cent

less of this group from each subpopulation scored in the fourth quartile which denotes a high degree of concern about the matching fund requirement.

TABLE 63

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE MATCHING FUND REQUIREMENT AND ITS EFFECT ON PROGRAM DEVELOPMENT

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	11.1	66.7	22.2	11.2	67.0	22.0
11,000 - 14,999	6.6	40.0	53.4	10.0	50.0	40.0
9,000 - 10,999	0	71.4	28.6	0	54.6	45.4
Below 8,999	0	50.0	50.0	0	53.8	46.2

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An analysis of Table 65 shows that in subpopulation one, all superintendents demonstrated a rather high degree of concern about the matching fund requirement being a hindrance to program development. However, those who had been employed by another board for thirteen years or more

TABLE 64

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE MATCHING FUND REQUIREMENT
AND ITS EFFECT ON PROGRAM
DEVELOPMENT

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	3.5	51.7	44.8	0	60.8	39.2
4 - 9	0	47.0	53.0	7.2	35.7	57.1
10 and over	9.5	71.4	19.1	11.1	72.2	16.7

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

were found to be the most concerned about the matching fund provision. The superintendents who came from subpopulation two reacted almost exactly opposite to the subpopulation one superintendents just discussed. At least forty-five per cent of the younger superintendents who had not applied scored in the fourth quartile. The older superintendents, on the other hand, were far less prone to agree strongly with the statements and generally failed to even score in quartile four. They

therefore reflected considerably less concern about the matching requirement provision of the Act than younger superintendents who did not apply.

TABLE 65

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS RELATING TO THEIR BELIEFS
ABOUT THE MATCHING FUND REQUIREMENT
AND ITS EFFECT ON PROGRAM
DEVELOPMENT

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	0	59.3	40.7	7.4	44.4	48.2
1 - 6	5.5	66.6	27.9	0	53.8	46.2
7 - 12	0	60.0	40.0	16.7	83.3	0
13 and over	11.7	33.3	50.0	0	89.0	11.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An examination of Table 66 shows that the more teaching experience possessed by a superintendent in subpopulation one, the less concern he exhibited over the matching fund requirement of the 1963 Act. The same pattern of responses was not exhibited by superintendents in

subpopulation two however. As a matter of fact, the opposite seemed to be true. The superintendents who did not apply for funds and had six or less years of teaching experience tended to show considerably more concern over this provision of the Act than was exhibited by their colleagues who had seven years or more of teaching experience. The reason for these opposing responses is a matter of conjecture.

TABLE 66

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
RELATING TO THEIR BELIEFS ABOUT THE MATCHING
FUND REQUIREMENT AND ITS EFFECT ON
PROGRAM DEVELOPMENT

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	14.3	57.1	28.6	12.5	50.0	37.5
4 - 6	4.7	57.2	38.1	0	46.7	53.3
7 - 9	0	57.9	42.1	0	75.0	25.0
10 and over	0	54.6	45.4	14.3	57.1	28.6

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

A summary of the responses reported in Tables 61 through 66 reveals the following:

1. Almost all superintendents in both subpopulations felt the matching fund requirement was a serious obstacle to program development.
2. The smaller and less wealthy his district, the greater the tendency for a superintendent from either subpopulation to demonstrate more serious concerns about the matching fund requirement.
3. The more experience a superintendent possessed as a school administrator, the less concern he exhibited over the matching fund provision.
4. Subpopulation one superintendents with the least amount of teaching experience were less concerned about the effect of the matching fund requirement upon program development than their colleagues with more teaching experience. The opposite was true for superintendents in subpopulation two.

Need for More State Financial Aid

Question eight asked: Do superintendents feel more state financial aid should be provided to satisfy the matching fund requirement? Once again, five statements were designed to answer this question. These statements, and the responses by the superintendents in the two subpopulations to each of them, are presented in Table 67.

TABLE 67

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
TO THE PROVISION OF MORE STATE AID TO SATISFY THE MATCHING
FUND REQUIREMENT OF THE VOCATIONAL EDUCATION ACT OF 1963

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b	
17. Education agencies receive an adequate amount of state financial assistance for vocational education. ^c	1.4 0	9.9 10.3	57.7 55.2	26.8 32.8	4.2 1.7	
30. State funds have historically been inadequate to assist expansion of vocational education to any degree. This situation should be corrected through the addition of a substantial amount of state money earmarked for the expansion of vocational education programs.	4.2 1.7	33.8 22.4	49.3 62.1	9.9 12.1	2.8 1.7	
38. Additional state money should be made available to assist the local school district in	1.4 1.7	18.3 17.3	67.6 65.5	8.3 13.8	4.2 1.7	

TABLE 67--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
Gr.1 Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a Gr.2 ^b

procuring its fifty per cent matching share of the total program of vocational education.

49. Since realistic vocational education programs should be developed on the basis of state as well as local manpower needs, the state should assume greater financial responsibility in providing such programs.

57. State funds should only be provided when they assist all students. I would therefore be opposed to additional state

TABLE 67--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
funds for providing expanded programs of vocational educa- tion. ^c					

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

Over eighty per cent of the superintendents in both subpopulation one and subpopulation two disagreed with statement 17. Their responses were very uniform among the four responses provided them.

Almost sixty per cent of those who applied either agreed or strongly agreed with statement 30. By comparison, almost seventy-five per cent of those who did not apply either agreed or strongly agreed with the same statement. Although the majority of both groups indicated they believed additional state funds for vocational education should be provided, those who did not apply expressed this belief in a stronger manner. One might surmise, therefore, that some of the superintendents in subpopulation two would have requested additional vocational funds if more state financial support had been available to satisfy the matching provision of the Act.

Both subpopulations of superintendents responded in the same manner to statement 38. Over eighty per cent of each group were either in favor or strongly in favor of this statement. A majority of superintendents, regardless of whether they applied for funds, feel state funds should be made available to assist in providing the necessary matching funds. This wish by both groups of superintendents was reiterated in their response to statement 49. Once again, over eighty per cent of the respondents from the two subpopulations either agreed or strongly agreed with this statement.

The question of providing state funds only for vocational students was raised in statement 57. Apparently the superintendents did not regard this restriction as a serious limitation since over eighty-five per cent of the responding administrators in both subpopulations either disagreed or strongly disagreed with statement 57.

The overwhelming majority of the superintendents in subpopulation one and subpopulation two were in favor of additional state aid to assist in providing matching funds even though these funds would be limited to the assistance of vocational education students.

The summated responses by both groups of superintendents to the statements relating to more state financial aid to satisfy the matching fund requirement are presented in Table 68.

A high score in Table 68 indicates a belief that more state aid should be provided. Superintendents in both subpopulations felt rather uniformly that additional state aid is needed to implement the provisions of the Vocational Education Act of 1963. Those superintendents who did not submit applications were only slightly more interested in increased state aid than were those who applied. This finding is somewhat surprising since it might be hypothesized that a lack of local matching funds would be one of the major reasons for not applying for funds. It would seem logical to expect, therefore, that a significantly greater number of superintendents in subpopulation

two would indicate a desire for additional state funds than superintendents in subpopulation one. This was not the case however. Perhaps one could generalize that superintendents who applied for funds and therefore had matching local money available still felt they could do a better job if additional state funds were provided.

TABLE 68

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO FIVE STATEMENTS RELATING TO THEIR BELIEFS ABOUT THE NEED FOR ADDITIONAL STATE AID

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 64)	Subpopulation Two ^b (N = 55)
0 - 5	0	0
6 - 10	0	3.6
11 - 15	65.5	56.5
16 - 20	34.5	39.9

$$x^2 = .628$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

The five tables showing the responses of superintendents when sorted on the basis of five different environmental and personal factors are presented next.

In Table 69 the responses of superintendents in

subpopulation one who came from the larger schools indicated they were considerably less interested in more state aid than their peers from smaller districts. All other superintendents from smaller districts tended to exhibit a strong belief in the need for additional state aid. This conclusion is supported by the fact that at least twenty-six per cent more of the superintendents from smaller districts scored in the fourth quartile than their colleagues from districts having 800 or more high school students.

TABLE 69

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS DEALING WITH WHETHER
ADDITIONAL STATE AID IS DESIRED
TO ASSIST IN SATISFYING THE
MATCHING FUND REQUIREMENT
OF THE 1963 ACT

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	0	83.4	16.6	10.6	52.6	36.8
500 - 799	0	56.2	43.8	0	50.0	50.0
300 - 499	0	50.0	50.0	0	55.6	44.4
299 and below	0	57.1	42.9	0	66.6	33.4

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

The respondents in subpopulation two who work in districts with varying high school enrollments reacted in a manner consistent with the summed responses of superintendents who did not apply for funds as shown in Table 68.

TABLE 70

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON FIVE STATEMENTS DEALING WITH WHETHER ADDITIONAL STATE AID IS DESIRED TO ASSIST IN SATISFYING THE MATCHING FUND REQUIREMENT OF THE 1963 ACT

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	0	80.0	20.0	5.3	57.9	36.8
11,000 - 14,999	0	75.0	25.0	7.7	61.5	30.8
9,000 - 10,999	0	53.8	46.2	0	45.4	54.6
Below 8,999	0	52.6	47.4	0	58.4	41.6

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

As anticipated, the responses by superintendents as shown in Table 70 indicate that the less wealth possessed by a superintendent's district the more likely he was to express a desire for more state aid. This is especially

apparent in subpopulation one when one notes the responses in the fourth quartile range from twenty per cent for the superintendents from the most wealthy district to 47.4 per cent for the superintendents from the least wealthy district. This relationship is not quite as pronounced with superintendents from subpopulation two but, in general, the respondents from the wealthier districts are apparently slightly less concerned about additional state aid than their colleagues from the poorer districts.

TABLE 71

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH WHETHER ADDITIONAL
STATE AID IS DESIRED TO ASSIST IN SATISFYING
THE MATCHING FUND REQUIREMENT
OF THE 1963 ACT

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	64.3	35.7	4.6	45.4	50.0
4 - 9	0	68.7	31.3	7.7	30.8	61.5
10 and over	0	65.0	35.0	0	85.0	15.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

The administrators from subpopulation one exhibited responses, as shown in Table 71, which are highly consistent with the summed responses elicited from superintendents from subpopulation one as reported in Table 68. Therefore, almost one-third of the superintendents, regardless of their length of employment as a superintendent by their present board, strongly favored additional state aid to assist in satisfying the matching fund provision of the Vocational Education Act of 1963.

For subpopulation two superintendents, those who have been employed by their current school board for over nine years are not as positive about the need for additional funds as their colleagues who possess less experience. Approximately forty-six per cent fewer of this latter group strongly favored additional state financial aid than those who had been employed from four to nine years. Thirty-five per cent fewer of these superintendents strongly favored additional state financial aid than their peers with three or less years of experience.

In Table 72 the responses by superintendents in subpopulation one show a steady increase in desire for additional state funds as the respondents report more years of employment by a previous school board.

The pattern for superintendents in subpopulation two is entirely different. Approximately forty-five per cent of this group express a strong desire for additional state aid except for those superintendents who have been

employed for thirteen years or more. This group is not as concerned about additional state aid being provided as their colleagues with less experience since only eleven per cent of the superintendents with thirteen years or more of experience were strongly in favor of added financial assistance.

TABLE 72

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS DEALING WITH WHETHER ADDITIONAL STATE AID IS DESIRED TO ASSIST IN SATISFYING THE MATCHING FUND REQUIREMENT OF THE 1963 ACT

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	0	73.0	27.0	0	57.7	42.3
1 - 6	0	66.6	33.4	0	53.8	46.2
7 - 12	0	54.6	45.4	28.6	28.6	42.8
13 and over	0	58.4	41.6	0	89.0	11.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An examination of Table 73 revealed no discernible pattern of differences in the responses of superintendents in either subpopulation one or two. Apparently teaching

experience was not a factor in influencing superintendents to express a desire for additional state funds to satisfy the matching requirement.

TABLE 73

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS DEALING WITH WHETHER ADDITIONAL STATE AID IS DESIRED TO ASSIST IN SATISFYING THE MATCHING FUND REQUIREMENT OF THE 1963 ACT

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	69.2	30.8	16.6	50.0	33.4
4 - 6	0	65.0	35.0	0	53.3	46.7
7 - 9	0	66.6	33.4	5.9	58.8	35.3
10 and over	0	72.7	27.3	0	60.0	40.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

In summarizing the responses of both groups of superintendents to the need for additional state financial aid to satisfy the matching fund requirement of the Act, the following generalizations can be stated.

All the superintendents from subpopulation one and

over ninety-six per cent of them from subpopulation two either agree or strongly agree that additional state aid is desirable. Over one-third of both groups strongly agree that such assistance would be desirable.

For the superintendents who applied for funds, those with the greatest amount of administrative experience who are employed in the smallest, least wealthy districts are the most interested in receiving additional state financial assistance. On the other hand, the superintendents who did not apply but possess the least amount of administrative experience are the ones who seem to be the most concerned with receiving additional state funds. No major differences were observed between subpopulation two superintendents who are employed in districts of varying size and wealth.

Understanding of Vocational Certification Requirements

Question nine asked: Do superintendents adequately understand vocational teacher certification requirements so they can best implement the provisions of the new Act? Table 74 provides the responses by superintendents in both subpopulations to the five statements designed to answer this question.

Over fifty per cent of the respondents in each subpopulation either agreed or strongly agreed with statement 5. The responses to each choice were quite uniform between the two groups. Consequently, at least one-half of all

TABLE 74

UNDERSTANDING OF VOCATIONAL EDUCATION CERTIFICATION REQUIREMENTS
POSSESSED BY TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
5. The provisions of the new Act make state teacher certification requirements for vocational education unrealistic. ^c	15.5	15.5	35.2	39.7	45.1	39.7
	0	1.7	60.6	63.8	31.0	20.7
35. To my knowledge there has been no effort by the North Central Association to recognize special teaching certificates in vocational education. ^c	0	1.7	60.6	63.8	31.0	20.7
	0	1.7	60.6	63.8	31.0	20.7
42. Many of the new courses now possible under the Vocational Education Act of 1963 will not be offered because of rigid vocational education teacher certification requirements. ^c	12.7	13.8	49.3	56.9	29.6	24.1
	12.7	13.8	49.3	56.9	29.6	24.1
	1.4	0	7.0	5.2		

TABLE 74--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b	
51. It is unrealistic to withhold needed instruction by demanding that every vocational education teacher be certified if he or she possesses skills which no certified teacher possesses or if no certified teacher is available for employment.	2.8 1.7	8.5 12.1	70.4 58.6	15.5 27.6	2.8 2.8	0 0
53. A specially certified vocational teacher should be employed only if he or she is required to meet the standards for permanent certification within a specified period of time. ^c	2.8 3.4	45.1 39.7	43.7 50.0	5.6 5.2	2.8 1.7	1.7 1.7

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

respondents apparently felt a need for a revision of vocational certification requirements as a result of the passage of the 1963 Act.

Over sixty per cent of the superintendents from subpopulation one and subpopulation two disagreed with statement 35. The high percentage of no responses by both groups also reflects a lack of knowledge in this area. Since a strong disagreement with this statement reflects a good understanding of a recent decision by the North Central Association, it appears that the Division of Vocational Education has succeeded, in this instance, in providing adequate information to a majority of administrators in the field.

Once again, strong disagreement with statement 42 would reflect a true understanding of certification requirements. Again both groups of superintendents responded rather uniformly to the four choices and over sixty per cent of the respondents in each subpopulation disagreed or strongly disagreed with the statement. Therefore, it appears that a majority of superintendents from both subpopulations feel that vocational certification requirements will not adversely affect vocation course expansion.

More than eighty-five per cent of the superintendents in each subpopulation either agreed or strongly agreed with statement 51. As a matter of fact, twelve per cent more of the superintendents in subpopulation two strongly

agreed than the respondents from subpopulation one. Obviously, the majority of superintendents are willing to hire technically capable but educationally unqualified teachers in order to provide needed vocational education courses. Although the superintendents are willing to hire uncertified teachers, they are apparently not in agreement as to how long the person should remain uncertified. Approximately fifty per cent of the superintendents in each subpopulation agreed with statement 53 while the other fifty per cent disagreed.

Several conclusions seem justified from the responses to the five statements just discussed:

1. The majority of superintendents feel the vocational certification requirements are unrealistic.
2. Some superintendents do not understand vocational certification requirements.
3. The great majority of them are willing to hire specially certified teachers.
4. Approximately fifty per cent of them feel the uncertified teacher should meet the requirements for certification within a specified period of time.

It is interesting to note that although the majority of superintendents feel the current certification requirements are unrealistic, at least fifty per cent of them would perpetuate this situation by requiring uncertified teachers to obtain certification within a given period of time.

The following table provides a comparison of the summed scores of superintendents in subpopulation one and subpopulation two for the five statements relating to certification requirements.

TABLE 75

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO FIVE STATEMENTS RELATING TO THEIR UNDERSTANDING OF VOCATIONAL TEACHER CERTIFICATION REQUIREMENTS

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 59)	Subpopulation Two ^b (N = 50)
0 - 5	0	0
6 - 10	10.2	14.0
11 - 15	86.4	84.0
16 - 20	3.4	2.0

$$\chi^2 = .346$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

When summed scores are high in Table 75, the superintendents reveal a good understanding of certification requirements in vocational education.

Over ten per cent of each subpopulation scored in the lower fifty percentile. In addition, only a very

small percentage of each subpopulation scored in the upper percentile. These scores, coupled with the sizable number of superintendents who did not respond, would imply that many of the administrators lacked a good understanding of certification requirements. Thirteen respondents, or 18.1 per cent, of subpopulation one and eight respondents, or 16 per cent, of subpopulation two failed to respond to one or more of the statements pertaining to question ten. Failure to respond could be associated with uncertainty or lack of knowledge. Because several of the superintendents did not respond to the statements relating to requirements for certification in vocational education, it is possible that more assistance needs to be provided by the Division of Vocational Education staff in relation to these requirements.

The following five tables provide the responses by superintendents in subpopulations one and two sorted on the basis of the five additional factors analyzed throughout this section of the chapter.

Because of a rather wide variety of responses by both groups of superintendents which present no observable pattern of differences in Tables 76 through 80, it is impossible to generalize that superintendents from large or small districts, wealthy or poor districts, or who have more or less administrative or teaching experience are any more knowledgeable about vocational certification requirements than any other group of superintendents. As a

TABLE 76

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS DEALING WITH UNDERSTANDING
OF VOCATIONAL TEACHER CERTIFICATION
REQUIREMENTS

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	4.3	87.0	8.7	11.8	88.2	0
500 - 799	14.3	85.7	0	18.2	72.7	9.1
300 - 499	30.0	70.0	0	25.0	75.0	0
299 and below	0	100.0	0	7.1	92.9	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 77

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON
FIVE STATEMENTS DEALING WITH UNDERSTANDING
OF VOCATIONAL TEACHER CERTIFICATION
REQUIREMENTS

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	5.5	89.0	5.5	22.2	77.8	0
11,000 - 14,999	0	100.0	0	8.3	91.7	0
9,000 - 10,999	15.4	77.0	7.6	18.2	72.7	9.1
Below 8,999	18.8	81.2	0	0	100.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 78

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH UNDERSTANDING
OF VOCATIONAL TEACHER CERTIFICATION
REQUIREMENTS

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	7.4	89.0	3.6	9.0	91.0	0
4 - 9	15.4	84.6	0	27.3	63.6	9.1
10 and over	10.5	83.2	6.3	11.7	88.3	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 79

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH UNDERSTANDING
OF VOCATIONAL TEACHER CERTIFICATION
REQUIREMENTS

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	12.0	80.0	8.0	8.3	87.5	4.2
1 - 6	16.7	83.3	0	7.6	92.4	0
7 - 12	0	100.0	0	50.0	50.0	0
13 and over	8.4	91.6	0	14.3	85.7	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

result of the lack of development of any meaningful patterns it was felt unnecessary to discuss each of the five tables separately.

One can say in summary that most superintendents seem to have a relatively poor understanding of vocational teacher certification requirements. This general lack of understanding was true of superintendents in both subpopulations one and two. Neither the size and wealth of their district nor their level of administrative or teaching

TABLE 80

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH UNDERSTANDING OF VOCATIONAL
TEACHER CERTIFICATION REQUIREMENTS

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	100.0	0	14.3	85.7	0
4 - 6	5.9	88.2	5.9	7.1	92.9	0
7 - 9	17.6	82.4	0	7.1	92.9	0
10 and over	20.0	70.0	10.0	23.2	69.2	7.6

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

experience appears to have had any bearing on their responses to the statements dealing with certification requirements.

Purpose of Vocational Education

Question ten asked: Do superintendents view vocational education as training for a single skill or a family of occupations? The five statements developed to obtain an answer to this question are presented in Table 81.

TABLE 81

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
REGARDING THE PURPOSES OF TRAINING IN VOCATIONAL EDUCATION

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses									
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
4. Vocational education should be provided in families or clusters of occupations at the secondary level so that high school graduates will be equally prepared to enter the labor market or pursue advanced training at the post-high school level.	0	1.7	8.5	22.4	67.6	51.7	23.9	20.7	0	3.5
11. Vocational education in families or clusters of occupations can only be provided in any realistic manner in an area vocational education facility or a community college.	9.9	15.5	30.9	60.4	43.7	15.5	14.1	8.6	1.4	0

TABLE 81--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses									
	Strongly Disagree		Disagree		Agree		Strongly Agree		No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b
22. Realistic vocational education must be offered at the secondary level in order to assist <u>all</u> students to become productive members of society.	1.4	3.4	19.7	17.3	49.3	55.2	25.4	20.7	4.2	3.4
23. With the advanced technology in this country and the continued change in the employment picture, training for clusters or families of occupations rather than for a single skill is the most realistic approach.	0	1.7	8.5	10.3	64.7	63.8	25.4	22.5	1.4	1.7
59. The needs of students in today's labor market can best be met if students in vocational education are trained	0	1.7	11.3	8.6	63.4	72.4	23.9	17.3	1.4	0

TABLE 81--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1	Gr.2
for a single skill rather than a cluster or family of occupations. ^c	Gr.1	Gr.2	Gr.1	Gr.2	Gr.1 ^a	Gr.2 ^b

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

A majority of the superintendents from both subpopulations agreed or agreed strongly with statement 4. However, almost twenty per cent more of the superintendents in subpopulation one agreed with this concept than did those from subpopulation two. Consequently, over seventy-five per cent of the superintendents who did not apply for funds and over ninety per cent of those who did felt that vocational education should be offered as a family or cluster of occupations.

Over thirty-five per cent more of the superintendents who did not apply agreed with statement 11 than those who applied. This is a rather interesting finding and may imply that superintendents in subpopulation two did not apply for funds because they believed that vocational education should be provided in area vocational schools.

Rather uniform answers to the four choices of responses were obtained from both groups on statement 22. Approximately seventy-five per cent of each subpopulation agreed that realistic vocational education must be offered at the secondary level. Based on the responses to statement 11 as discussed above, a majority of superintendents from subpopulation two subscribe to the principle presented in statement 22 but believe it should be provided in area vocational schools.

Responses to statements 23 and 59 illustrate clearly that regardless of whether or not they applied for vocational education funds, over eighty-five per cent of all

superintendents feel that vocational education should be offered as clusters or families of occupations rather than as training for a single skill.

Table 82 presents the summed responses to the five statements just discussed.

TABLE 82

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FIVE STATEMENTS RELATING TO THEIR VIEWS
REGARDING THE PURPOSES OF TRAINING IN
VOCATIONAL EDUCATION

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 65)	Subpopulation Two ^b (N = 54)
0 - 5	0	0
6 - 10	1.5	1.9
11 - 15	53.9	74.0
16 - 20	44.6	24.1

$$x^2 = 5.3$$

$$d/f = 1$$

$$\text{Sig. level} = .05$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

A high score on Table 82 indicates a belief that vocational training should be provided as a family or cluster of occupations. Obviously, on the basis of the responses, those superintendents who applied for vocational

education funds more readily accepted this belief. A full twenty per cent more of subpopulation one had average scores of 3.2 to 4 on each of the five statements. A response such as this indicates a high degree of agreement. As a matter of fact, the difference between the two subpopulations was statistically significant at the .05 level. This is rather surprising when one considers the rather uniform responses to the five statements used to obtain the summed score in Table 82. The reader will recall from Table 81 that the superintendents in subpopulation one scored consistently higher in the fourth quartile than subpopulation two respondents. In addition, quite a discrepancy existed between the two groups on the question of where vocational training for clusters of occupations should be provided. These two facts probably account for the statistical difference between the two groups.

The following tables will compare scores of superintendents in both subpopulations sorted on the basis of: (1) their districts' 9-12th grade enrollment, (2) their districts' state equalized valuation, (3) their years of employment by their current board, (4) their years of employment by a previous board, and (5) their years of employment as a teacher.

Table 83 illustrates some interesting facts. First of all, the more negative scores (those in quartile two) for both subpopulations were obtained by superintendents from the largest districts. Anyone, therefore, who felt that vocational education should be taught as a

TABLE 83

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS REGARDING THE PURPOSES OF
TRAINING IN VOCATIONAL EDUCATION

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	4.1	58.4	37.5	5.6	66.6	27.8
500 - 799	0	60.0	40.0	0	63.6	36.4
300 - 499	0	54.5	45.5	0	66.6	33.4
299 and below	0	40.0	60.0	0	93.7	6.3

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

single skill came from school districts having a high school enrollment of over 800 students. Those superintendents from subpopulation one who most strongly disagreed with the point of view were those who were employed in districts having a high school enrollment of less than 300 students. This latter group of superintendents tended to feel quite strongly that vocational education should be offered as a family of occupations. Superintendents who did not apply for funds but came from the larger schools

tended to strongly favor offering vocational education as a family of occupations. On the other hand, superintendents from districts with less than 300 high school students were very much opposed to vocational education as a family or cluster of occupations when compared with their colleagues from districts having more than 300 high school students. One can only wonder whether the superintendents from small school districts do not also have limited physical facilities which might preclude families of occupations being taught. Subconsciously, perhaps, such limitations could have affected their responses.

No major differences appear among the respondents from districts of varying wealth, as reported in Table 84, except that a much higher proportion of the superintendents in subpopulation one scored in the fourth quartile than the superintendents from the same enrollment stratum in subpopulation two. Within each subpopulation, however, the responses by superintendents in the various strata are rather uniform. The amount of state equalized valuation apparently has no bearing on the superintendents' responses.

The only major difference reflected by length of employment, as indicated in Table 85, was shown for respondents in subpopulation two who had been employed by their current board for ten or more years. These men, although all tending to agree that vocational education should be taught as a family of occupations, did not express themselves as strongly as their peers who had less experience.

Approximately nineteen per cent fewer of this latter group scored in quartile four than their colleagues with less experience.

TABLE 84

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON FIVE STATEMENTS REGARDING THE PURPOSES OF TRAINING IN VOCATIONAL EDUCATION

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	0	50.0	50.0	5.5	72.3	22.2
11,000 - 14,999	0	60.0	40.0	0	69.2	30.8
9,000 - 10,999	7.6	46.2	46.2	0	81.8	18.2
Below 8,999	0	61.1	38.9	0	75.0	25.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

Superintendents from subpopulation one showed no consistency in their responses in Table 86. The superintendents who did not apply for funds reflected less positive agreement with the five statements the longer they had been employed by previous boards. This is reflected by the fact that the per cent of responses in the fourth

quartile varied from 33.3 per cent for superintendents with less than one year of experience with a previous board to zero for superintendents with at least thirteen years of experience with another board of education. Consequently, for superintendents who did not apply, the more experienced they were the more strongly they felt vocational education should not be taught as a family of occupations.

TABLE 85

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS REGARDING THE PURPOSES OF TRAINING IN VOCATIONAL EDUCATION

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	56.6	43.4	4.6	65.2	30.4
4 - 9	6.3	56.2	37.5	0	69.2	30.8
10 and over	0	17.4	52.6	0	89.0	11.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

No particularly different pattern of responses was apparent among superintendents in subpopulation two when

TABLE 86

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS RELATING TO THE PURPOSES OF
TRAINING IN VOCATIONAL EDUCATION

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	4.0	40.0	56.0	3.7	63.0	33.3
1 - 6	0	83.4	16.6	0	75.0	25.0
7 - 12	0	36.4	63.6	0	83.3	16.7
13 and over	0	54.5	45.5	0	100.0	0

^aSubpopulation one = those who applied for funds
^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

analyzed on the basis of Table 87. About twenty-five per cent of them, regardless of years of teaching experience, strongly agreed that vocational education should be taught as a cluster or family of occupations. Superintendents from subpopulation one tended to become progressively more positive toward vocational education as a family of occupations in direct relationship to their length of experience as a teacher. In other words, the longer he had served as a teacher, the more strongly he felt vocational education should be taught as a family of occupations.

TABLE 87

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
RELATING TO THE PURPOSES OF TRAINING IN
VOCATIONAL EDUCATION

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	0	64.2	35.8	0	75.0	25.0
4 - 6	0	75.0	25.0	0	78.6	21.4
7 - 9	5.6	33.3	61.1	0	73.4	26.6
10 and over	0	36.4	63.6	6.6	73.4	20.0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

In summarizing the various methods of analyzing the responses to the statements dealing with the superintendent's perception of how vocational education should be offered to students, the following results were observed. Approximately twenty per cent more of the superintendents in subpopulation one strongly agreed with the idea of a family or cluster of occupations than superintendents from subpopulation two. Superintendents who applied for funds and were employed in the smaller districts tended to provide the most positive support to this concept. The most negative reflections from subpopulation two superintendents were obtained from the most experienced superintendents employed in the smallest districts.

Needs Met By Established Priorities

Question eleven asked: Do superintendents feel the priorities established for 1964-65 and 1965-66 best met the needs of their schools in particular and the state in general? The responses by both groups of superintendents to the five statements designed to answer this question are presented in Table 88.

Seventy and eighty-seven per cent of the superintendents in subpopulations one and two, respectively, either disagreed or disagreed strongly that the established priorities favored the larger schools. Only 12.1 per cent of the superintendents in subpopulation two agreed as compared to 28.2 per cent of those who applied. Apparently, a majority of the superintendents felt that the

TABLE 88

VIEWPOINTS OF TWO RESPONDENT-GROUPS OF MICHIGAN SUPERINTENDENTS
REGARDING PRIORITIES ESTABLISHED FOR THE USE OF VOCATIONAL
EDUCATION ACT OF 1963 FUNDS

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
1. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the larger school districts. ^c	32.4 43.1	38.0 44.8	28.2 12.1	0 0	1.4 0
13. Due to the uniqueness of each local situation, no one purpose, in terms of priorities, should receive any more weight or a higher priority for Vocational Education Act of 1963 funds than another. ^c	19.7 27.6	49.4 56.9	22.5 12.1	5.6 3.4	2.8 0
50. The Division of Vocational Education has the responsibility of establishing priorities on the allocation	1.4 0	23.9 15.5	69.1 72.5	4.2 10.3	1.4 1.7

TABLE 88--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses					
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response	
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a	Gr.2 ^b
of funds to assure the best possible program on a state-wide basis with the amount of money available.	7.0	17.3	43.7	44.8	2.8	0
52. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the establishment of new programs or the expansion of old ones almost to the exclusion of maintaining currently operating programs of vocational education.	9.9	1.7	19.7	24.1	42.3	46.6
64. A great deal of emphasis and a high priority for funds should be assigned to the	9.9	1.7	19.7	24.1	42.3	46.6
	25.3	25.9	2.8	1.7		

TABLE 88--Continued

Statement as Randomly Numbered in Questionnaire	Per Cent of Responses				
	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 Gr.2	Gr.1 ^a Gr.2 ^b
construction of area voca- tional-technical school facilities.					

^aGr. 1 = subpopulation one - those who applied for funds
^bGr. 2 = subpopulation two - those who did not apply for funds
^cNegative statement - order of agreement reversed

priorities established by the Division of Vocational Education permitted an equitable distribution of available funds among all school districts.

Although the majority of superintendents from both subpopulations either disagreed or strongly disagreed with statement 13, almost thirty per cent of those who applied either agreed or strongly agreed with the statement in comparison to only about fifteen per cent from subpopulation two who agreed or strongly agreed. In comparison to those who did not apply, almost twice as many of those who applied for funds felt that certain priorities were logical. It might be assumed, therefore, that since the percentages of agree and strongly agree responses to statement 1 were almost identical to the agree-strongly agree responses of both groups to statement 13, that the same superintendents who felt large schools were not favored in the priorities established by the Division were also the ones who felt priorities should be established.

Responses to item 50 indicate that superintendents in both subpopulations one and two felt strongly that leadership by the Division of Vocational Education in establishing priorities was not an infringement on local autonomy.

A high degree of uniformity can be observed in the responses of superintendents from both subpopulations to items 52 and 64. At least fifty per cent of each subpopulation of responding administrators felt that the priorities did not favor the establishment of new programs of

vocational education to the exclusion of currently operating programs. Apparently this is an area which has been adequately clarified by the staff of the Division of Vocational Education.

Judging from the responses to statement 64, over sixty-five per cent of the superintendents in each subpopulation agree with the area school concept and are willing to see a great deal of effort and resources put into the construction of area-technical school facilities.

The summed responses of both subpopulations of superintendents to the five questions discussed above are presented in Table 89.

A high degree of acceptance of the priorities established is reflected by scores approaching twenty. Approximately one-fifth of the superintendents in group one and one-quarter of those in group two felt the priorities did not satisfy their needs. Although the difference between the two subpopulations was not statistically significant, it would appear that the established priorities may have had some influence upon the decision by superintendents to apply for funds. If, for example, a superintendent felt the priorities established would either adversely affect his ongoing program or were restrictive because of the size or wealth of his district, he may have determined that making application for funds would be a waste of his time. Conversely, since many of those who applied expressed the same concerns relative to the established

priorities, it is obvious, if the above analysis is accurate, that other factors weighed strongly enough to overcome these concerns. This inference illustrates once again what seems to have been obvious throughout this study, that no single factor can be said to have been sufficient to influence a superintendent's decision to apply for funds.

TABLE 89

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FIVE STATEMENTS RELATING TO THEIR AGREEMENT
WITH THE PRIORITIES ESTABLISHED
FOR FISCAL YEAR 1965

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 63)	Subpopulation Two ^b (N = 54)
0 - 5	0	0
6 - 10	19.1	27.3
11 - 15	77.6	70.9
16 - 20	3.3	1.8

$$\chi^2 = 1.04$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

The additional analysis of question eleven on the basis of certain environmental and professional differences between superintendents is presented in the next five tables.

TABLE 90

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING 9-12TH GRADE ENROLLMENT ON
FIVE STATEMENTS DEALING WITH THE ADEQUACY OF
PRIORITIES ESTABLISHED FOR THE
DISTRIBUTION OF VOCATIONAL
EDUCATION FUNDS

9-12th Grade Enrollment	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
800 and above	25.0	70.8	4.2	26.3	68.4	5.3
500 - 799	11.8	82.4	5.8	20.0	80.0	0
300 - 499	20.0	80.0	0	50.0	50.0	0
299 and below	16.6	83.4	0	18.7	81.3	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 91

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED IN
DISTRICTS OF VARYING STATE EQUALIZED VALUATION ON
FIVE STATEMENTS DEALING WITH THE ADEQUACY OF
PRIORITIES ESTABLISHED FOR THE
DISTRIBUTION OF VOCATIONAL
EDUCATION FUNDS

Per Pupil State Equalized Valuation	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
\$15,000 and above	11.1	88.9	0	22.3	77.7	0
11,000 - 14,999	23.0	77.0	0	33.4	66.6	0
9,000 - 10,999	15.4	69.2	15.4	18.2	81.8	0
Below 8,999	26.4	73.6	0	35.7	57.1	7.2

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 92

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
THEIR PRESENT BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE ADEQUACY OF
PRIORITIES ESTABLISHED FOR THE
DISTRIBUTION OF VOCATIONAL
EDUCATION FUNDS

Years As Superintendent, Present Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	17.9	75.0	7.1	30.4	69.6	0
4 - 9	20.0	80.0	0	14.3	78.6	7.1
10 and over	20.0	80.0	0	33.4	66.6	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 93

SUMMED SCORES RECEIVED BY SUPERINTENDENTS EMPLOYED BY
A PREVIOUS BOARD FOR VARYING LENGTHS OF TIME ON
FIVE STATEMENTS DEALING WITH THE ADEQUACY OF
PRIORITIES ESTABLISHED FOR THE
DISTRIBUTION OF VOCATIONAL
EDUCATION FUNDS

Years As Superintendent, Previous Board	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
Less than 1	16.0	80.0	4.0	26.0	74.0	0
1 - 6	25.0	68.8	6.2	28.6	71.4	0
7 - 12	18.2	81.8	0	28.6	57.2	14.2
13 and over	18.2	81.8	0	25.0	75.0	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

TABLE 94

SUMMED SCORES RECEIVED BY SUPERINTENDENTS WHO TAUGHT
FOR VARYING LENGTHS OF TIME ON FIVE STATEMENTS
DEALING WITH THE ADEQUACY OF PRIORITIES
ESTABLISHED FOR THE DISTRIBUTION OF
VOCATIONAL EDUCATION FUNDS

Years of Teaching Experience	Per Cent of Superintendents' Scores in Each Quartile					
	Subpopulation One ^a			Subpopulation Two ^b		
	Q2 ^c	Q3 ^d	Q4 ^e	Q2	Q3	Q4
3 or less	8.3	91.7	0	42.8	57.2	0
4 - 6	42.1	52.6	5.3	33.4	66.6	0
7 - 9	15.0	80.0	5.0	29.4	64.6	6.0
10 and over	0	100.0	0	14.3	85.7	0

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

^cQ2 = 2nd quartile or scores of 6-10

^dQ3 = 3rd quartile or scores of 11-15

^eQ4 = 4th quartile or scores of 16-20

An analysis of Tables 90 through 94 in comparison to Table 89 shows no meaningful differences in the responses by superintendents in either subpopulation. Apparently the fact that superintendents came from districts having different sizes of high school enrollments or different degrees of wealth and possessed different amounts of administrative and teaching experience had little bearing on their perception of the adequacy of the priorities for 1963 Act funds established by the staff of the Division of

Vocational Education. Where rather large percentage differences occurred between the responses obtained on one of the preceding five tables and Table 89, there was no apparent pattern to the differences and consequently they were difficult to evaluate in any meaningful way.

In summary, it has been pointed out in the preceding seven tables that a rather sizable group of superintendents from both subpopulations felt the priorities established by the Division of Vocational Education for the use of funds available under the provisions of the Vocational Education Act of 1963 were equitable and adequate to meet their needs. Approximately eight per cent more of subpopulation two superintendents expressed strong agreement with the established priorities than superintendents from subpopulation one.

Neither the size or wealth of the districts of the superintendents from either subpopulation nor their years of experience as administrators and teachers had any apparent effect on the responses. This finding is somewhat surprising since one might expect that superintendents from large, wealthy districts would react differently from superintendents from small, poor districts to any set of established priorities.

The Superintendent's Understanding of the 1963 Act

As already mentioned, the final two variables associated with the operational procedures of the Michigan

Division of Vocational Education were posed in the form of the following questions:

12. Was the decision to submit an application related to the superintendent's understanding of the Vocational Education Act of 1963, and,
13. What parts of the Act are least understood by superintendents and need further clarification by state personnel?

Part Three of the research questionnaire contained forty-three true and false statements. The total score on all statements was assumed to provide a measure of each superintendent's overall understanding of the provisions of the Vocational Education Act of 1963. In order to determine which parts or provisions of the Act were best or least understood, ten statements were developed to measure the understanding of general provisions of the Act and an additional three statements were developed to measure the superintendent's understanding of each of eleven specific sections or purposes which were affected by the provisions of the Act.

The reader might wish to refer to Part Three of the questionnaire in Appendix A to review the statements dealing with each of the specific sections. Since the statements were randomly assigned to this part of the instrument, it will be necessary for the reader to consult the following guide to determine which statements pertain to each section of the Act under analysis.

<u>Section or Purpose Analyzed</u>	<u>Randomly Numbered Statements</u>
General Provisions	10,14,15,18,21,29, 30,35,41,42
Youth with Special Needs	13,24,28
Area Vocational-Technical Schools	19,20,40
Office Education	1,4,36
Distributive Education	3,34,38
Agriculture Education	6,23,32
Trade and Industrial Education	7,31,39
Placement and Follow-Up	16,33,37
Post-High School Vocational and Technical Education	2,12,25
Adult Vocational Education	9,17,22
Work-Study Program	5,8,27

Tables were prepared to show the responding superintendents' general understanding of the Act as well as their understanding of the eleven separate provisions.

As already mentioned, the Chi square statistic was applied to each of these tables. In order to assure that expected frequencies of at least five were obtained, the scores for quartiles one and two were collapsed into the lower fifty percentile and quartiles three and four were collapsed into the upper fifty percentile. Consequently, the significance levels shown for the following table compare the lower and upper fifty per cent of all scores for superintendents in subpopulation one to the corresponding scores for superintendents in subpopulation two. For example, the fourfold contingency table and the

accompanying statistical analysis for Table 95 would appear as follows:

	Lower 50%	Upper 50%	
Subpopulation 1	29	35	64
Subpopulation 2	33	20	53
	62	55	117

$$X^2 = \frac{N(BC-AD)^2}{(A+B)(C+D)(A+C)(B+D)}$$

$$X^2 = \frac{117(1155-580)^2}{(64)(53)(62)(55)}$$

$$X^2 = \frac{117(575)^2}{11,590,000}$$

$$X^2 = \frac{117 \times 330,000}{11,590,000}$$

$$X = \frac{3,859,000}{11,590,000} = .333$$

Table 95 contains a comparison of the composite scores compiled from the superintendents' responses. Table 96 is composed of superintendents' responses relating to their general understanding of the Act whereas Tables 97 through 107 summarize the results obtained from the responses of superintendents relative to each specific section of the Act.

The notations used on tables in this section are identical to those used on all tables in this chapter.

In Table 95 the higher the score the greater the amount of total information possessed by the population sample of superintendents. Approximately sixty-seven per cent of those who applied for funds scored in the upper

TABLE 95

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
FORTY-THREE STATEMENTS RELATING TO THEIR
UNDERSTANDING OF THE VOCATIONAL
EDUCATION ACT OF 1963

Summed Score by Quartile	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 71)	Subpopulation Two ^b (N = 58)
0 - 11	5.7	22.4
12 - 22	26.7	24.1
23 - 33	54.9	50.0
34 - 43	12.7	3.5

$$\chi^2 = 2.69$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

fifty percentile compared to only 53.5 per cent of those who did not apply. The major differences between the two subpopulations occurred however in the upper and lower quartiles. Almost seventeen per cent more of the superintendents who did not apply exhibited a very low level of information as compared to those who did apply. Conversely, almost ten per cent more of the superintendents in subpopulation one exhibited a high degree of understanding when compared to subpopulation two. Although

statistical significance was not reached at the .05 level on this table, it is significant at the .10 level. This would imply that the degree of difference between the two groups is rather high. Those superintendents who applied had a much greater understanding of the provisions of the 1963 Act and probably found it easier to apply for funds than their less informed colleagues from subpopulation two.

TABLE 96

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
TEN STATEMENTS RELATING TO THEIR UNDERSTANDING
OF THE GENERAL PROVISIONS OF THE 1963 ACT

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 61)	Subpopulation Two ^b (N = 48)
0 - 2	3.2	12.6
3 - 5	31.2	33.4
6 - 8	60.7	54.3
9 - 11	4.9	0

$$x^2 = 2.32$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Almost ten per cent more of subpopulation two scored in the lower percentile on Table 96 as compared to their colleagues in subpopulation one. In addition, over eleven

per cent more of subpopulation one had scores in the upper fifty per cent than their counterparts in subpopulation two. Superintendents from subpopulation one, therefore, exhibited slightly more understanding of the general purposes of the Act than the superintendents who did not apply for funds.

The following tables are designed to compare the amount of knowledge exhibited by superintendents in the two subpopulations toward the eleven specific purposes of the Vocational Education Act of 1963 as summarized on page 238.

Each section or purpose was evaluated with three questions. Each question was assigned a numerical value of one. The scores in the following tables will therefore range from zero to three. The reader will recall that the respondent could answer the question by circling the "T" for true, the "F" for false or the "I" for insufficient information. Since the test was designed to measure the effectiveness of the information provided by the staff of the Division of Vocational Education, it was determined that an "I" should be considered the same as an incorrect answer. Consequently, all correctly answered statements were given one point, all incorrect answers and all those answered with the "I" selection were given zero points.

TABLE 97

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR YOUTH WITH
SPECIAL NEEDS

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 65)	Subpopulation Two ^b (N = 50)
0	4.6	6.0
1	23.1	24.0
2	50.8	44.0
3	21.5	26.0

$$x^2 = .08$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 98

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS ABOUT AREA
VOCATIONAL TECHNICAL SCHOOLS

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 67)	Subpopulation Two ^b (N = 49)
0	4.5	12.2
1	20.9	18.4
2	41.8	34.7
3	32.8	34.7

$$x^2 = .358$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 99

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR
OFFICE EDUCATION

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 71)	Subpopulation Two ^b (N = 58)
0	3.3	11.5
1	20.2	16.1
2	68.1	48.8
3	8.4	23.6

$$x^2 = .34$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 100

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR
DISTRIBUTIVE EDUCATION

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 66)	Subpopulation Two ^b (N = 48)
0	5.2	13.8
1	21.1	14.9
2	55.9	48.3
3	17.8	23.0

$$\chi^2 = .141$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 101

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR
AGRICULTURAL EDUCATION

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 66)	Subpopulation Two ^b (N = 50)
0	9.1	20.0
1	18.2	26.0
2	53.0	44.0
3	19.7	10.0

$$\chi^2 = 4.37$$

$$d/f = 1$$

$$\text{Sig. level} = .05$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

In Tables 97 through 100, superintendents in subpopulation two consistently obtained higher percentages in the lowest quartile and lower percentages in the third quartile than superintendents from subpopulation one. In addition, more superintendents from the group who did not apply scored in the lowest fifty per cent in each of the tables than their colleagues who had applied for funds. Obviously then, superintendents in subpopulation one demonstrated more knowledge of the provisions of the Act relating to youth with special needs, area vocational technical schools, and office and distributive education.

In Table 101 the degree of difference between the two subpopulations of responding administrators was significant at the .05 level. Those superintendents who applied for funds, although not possessing a statistically significant amount of information in general, were much more knowledgeable of the provisions of the Act relative to agricultural education. This finding would imply that development of agricultural education programs might be extended or expanded if less time were spent by the Agricultural Education staff of the Division of Vocational Education with schools having agricultural education programs and more time with those not now having programs.

In Table 102 the differential in information about homemaking education possessed by the superintendents in the two subpopulations was significant at the .001 level. This extremely high significance level implies a serious

lack of information or a great deal of misinformation about these types of programs. Since the 1963 Act made funds available only for programs for gainful employment in home economics, it might be assumed that gainful employment has not yet been adequately defined by the staff of the Division of Vocational Education. However, since superintendents in subpopulation one generally did well on the statements dealing with home economics, one might assume that, as in agriculture, serious scrutiny of those who did not apply should be made by state staff members in home economics.

TABLE 102

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR VOCATIONAL
HOMEMAKING EDUCATION

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 67)	Subpopulation Two ^b (N = 49)
0	4.5	22.4
1	17.9	30.6
2	50.7	40.9
3	26.9	6.1

$$x^2 = 11.62$$

$$d/f = 1$$

$$\text{Sig. level} = .001$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 103

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR VOCATIONAL
TRADE AND INDUSTRIAL EDUCATION

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 66)	Subpopulation Two ^b (N = 49)
0	6.1	14.3
1	36.3	51.0
2	28.8	22.4
3	28.8	12.3

$$\chi^2 = 5.93$$

$$d/f = 1$$

$$\text{Sig. level} = .02$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

In Table 103 the respondents from subpopulation one scored so much better on questions dealing with trade and industrial education that the difference between the two groups was significant at the .05 level. The same generalization can be made for this service as was proposed for agriculture and home economics. It appears necessary for staff members of the Division of Vocational Education to concentrate on providing consultant services to those systems which do not now have Trade and Industrial Education programs or did not request funds to improve or expand existing ones.

TABLE 104

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR PLACEMENT AND
FOLLOW-UP SERVICES

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 65)	Subpopulation Two ^b (N = 49)
0	3.1	10.2
1	18.4	16.3
2	40.0	40.8
3	38.5	32.7

$$\chi^2 = .384$$

$$d/f = 1$$

Sig. level = N. S.

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

TABLE 106

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR ADULT
VOCATIONAL EDUCATION^a

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^b (N = 66)	Subpopulation Two ^c (N = 49)
0	3.1	10.2
1	24.2	24.5
2	42.4	40.8
3	30.3	24.5

$$\chi^2 = .714$$

$$d/f = 1$$

Sig. level = N. S.

^aNote: Post-high school vocational education is defined as fulltime study whereas adult vocational education is defined as part-time or supplementary education.

^bSubpopulation one = those who applied for funds

^cSubpopulation two = those who did not apply for funds

Even though statistically significant differences did not occur between the two subpopulations in Tables 104, 105 and 106, it once again becomes apparent that superintendents from subpopulation one were slightly more knowledgeable about the provisions of the Act relating to placement and follow-up services, post-high school education and adult education. Approximately seven per cent more of the superintendents from subpopulation two obtained zero scores

TABLE 106

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE OF
THE 1963 ACT PROVISIONS FOR ADULT
VOCATIONAL EDUCATION^a

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^b (N = 66)	Subpopulation Two ^c (N = 49)
0	3.1	10.2
1	24.2	24.5
2	42.4	40.8
3	30.3	24.5

$$\chi^2 = .714$$

$$d/f = 1$$

Sig. level = N. S.

^aNote: Post-high school vocational education is defined as fulltime study whereas adult vocational education is defined as part-time or supplementary education.

^bSubpopulation one = those who applied for funds

^cSubpopulation two = those who did not apply for funds

Even though statistically significant differences did not occur between the two subpopulations in Tables 104, 105 and 106, it once again becomes apparent that superintendents from subpopulation one were slightly more knowledgeable about the provisions of the Act relating to placement and follow-up services, post-high school education and adult education. Approximately seven per cent more of the superintendents from subpopulation two obtained zero scores

in each of the three tables than superintendents from subpopulation one. In addition, about six per cent more of the superintendents in subpopulation one responded accurately to all three statements than the superintendents from subpopulation two. On the basis of these findings it can be said that, although a relatively high per cent of both groups of superintendents indicated a lack of knowledge of these three purposes, the superintendents who did not apply for funds were less knowledgeable than their colleagues who applied.

TABLE 107

SUMMED SCORES RECEIVED BY TWO RESPONDENT-GROUPS TO
THREE STATEMENTS RELATING TO THEIR KNOWLEDGE
OF THE 1963 ACT PROVISIONS FOR A
WORK STUDY PROGRAM

Summed Score	Per Cent of Superintendents by Quartile	
	Subpopulation One ^a (N = 65)	Subpopulation Two ^b (N = 50)
0	35.4	38.0
1	32.3	48.0
2	18.5	10.0
3	13.8	4.0

$$\chi^2 = 5.16$$

$$d/f = 1$$

$$\text{Sig. level} = .05$$

^aSubpopulation one = those who applied for funds

^bSubpopulation two = those who did not apply for funds

Although Table 107 showed a statistical significance of .05 in the different scores obtained by the two subpopulations, scrutiny of Table 107 shows neither group was very knowledgeable about the work-study program. One would logically be inclined to recommend a great deal more information about the work-study program be provided to the superintendents of all eligible schools except that, at the time of this writing, work-study funds appear to have been withdrawn from the Act and the program may no longer be available to students.

A general comparison of Tables 97 through 107 shows some uniformity of results. In each case, from two to three times as many superintendents in the group that did not submit applications failed to answer the three questions at all or answered them all incorrectly. In other words, they received a zero score on the table being considered. In addition, in all but four of the eleven tables, more of the superintendents who had applied for funds were able to answer all three questions correctly than those superintendents who did not apply for funds. There was enough diversity in the scores in both subpopulations to justify the belief that the Division of Vocational Education has not supplied the superintendents with sufficient information about the Vocational Education Act of 1963.

A comparison of the scores obtained by both subpopulations on Tables 97 through 107 shows that many of those who actually applied were not too well informed. It was

brought out in every table dealing with knowledge of the Act that more of the superintendents who did not apply scored considerably lower than those superintendents who applied. This finding would lead one to believe that lack of knowledge was indeed a factor in making application for funds.

Added to this, the finding of a statistical significance in the differences in responses of at least an .05 level for those statements dealing with agricultural education, homemaking education, trade and industrial education and the work-study program makes this assumption even more valid.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

On the basis of responses by seventy-one superintendents who had applied for Vocational Education Act of 1963 funds and fifty-eight superintendents who had not applied for funds, certain generalizations relative to the purpose and subpurposes of this study, as outlined in Chapter One, are possible.

Conclusions

The major purpose of this study was to identify some of the variables associated with the decisions of school superintendents to submit applications for funding under the Vocational Education Act of 1963. This major purpose was then made more specific by the development of three subpurposes.

Subpurpose one was established to identify certain variables related to the superintendents' professional preparation and experience which were associated with the decision to apply for funds.

1. The superintendents who applied for funds possessed a significantly higher level of academic preparation. Therefore, it appears that superintendents with greater academic preparation are more likely to apply for funds.

2. Superintendents who applied for funds tended to perceive vocational education more favorably than those who did not apply. The data did not indicate however that this variable was necessarily associated with the decision to apply for funds and the differences in perception were not statistically significant.
 - a. Superintendents employed by wealthy districts are much more favorably disposed toward vocational education than their colleagues from poorer districts.
 - b. Superintendents who did not apply and work in the poorer districts expressed the most negative perception of vocational education.
 - c. Superintendents who did not apply for funds and had been employed as an administrator for longer periods of time by either their current or previous school board generally expressed the most negative view of vocational education.
3. The superintendent's undergraduate major, type or length of teaching experience, length of employment by current and previous school districts, or length of employment in fields other than education apparently had no significant relation to the decision to apply for funds.

Subpurpose two was formulated to identify certain variables related to the superintendent's immediate professional environment which were associated with the decision to apply for funds.

1. No significant difference occurred between the two groups of superintendents when compared on the basis of their districts' ninth through twelfth grade enrollment and state equalized valuation.
2. Superintendents who attended regional informational conferences conducted by the Division of Vocational Education were more likely to apply for funds. A significantly greater number of those who applied had attended a regional informational conference when compared to those superintendents who did not apply.

Subpurpose three was designed to identify certain variables related to the operational procedures of the State Division of Vocational Education which were associated with the decision to apply for funds.

1. Superintendents who applied had a more positive perception of how the Vocational Education Act of 1963 would benefit public schools. This perception seems to have been associated, at least in a minor way, with the decision to apply for funds although statistically significant differences were not obtained.
 - a. Superintendents who did not apply and had been employed by a previous board for over a decade were the most critical of the way the Act would affect public schools.
2. The availability of printed materials from the Division of Vocational Education to assist superintendents in implementing the provisions of the Act was not

associated with the decision to apply for funds. Even though a statistically significant difference did not result, certain generalizations were possible from the data.

- a. All superintendents expressed a strong need for additional printed materials. Superintendents who had not applied for funds indicated a stronger desire for these materials than those who had applied for funds.
 - b. Superintendents from districts having small high school enrollments revealed the most interest in additional materials from the Division of Vocational Education.
 - c. More experienced superintendents who did not apply for funds reacted most negatively toward the idea of the State Division of Vocational Education developing additional materials to be used in the implementation of the 1963 Act.
3. The amount and types of consultant help provided by the Division of Vocational Education apparently had no measurable bearing on the decision to apply for funds. Once again, statistical significance was not obtained.
 - a. The majority of superintendents, whether they requested 1963 Act funds or not, favored additional consultant services.
 - b. Consultant services were most desired in the areas

of vocational guidance, adult education, area vocational school programming and providing programs for persons with special needs.

- c. Superintendents from smaller, less wealthy districts expressed the greatest desire for additional consultant assistance.
 - d. More experienced superintendents indicated less desire for additional consultant assistance than their less experienced colleagues.
4. The desire for printed materials designed to interpret the Act to communities cannot be said to have been associated with the decision to apply for funds. A lack of statistical significance was once again observed.
- a. Most superintendents expressed a need for additional interpretive materials.
 - b. In general, the superintendents who did not apply for funds tended to exhibit a greater desire for these materials than those who applied.
 - c. The superintendents who did not apply and were employed by districts having larger high school enrollments tended to favor the development of additional materials more than their fellow administrators from smaller districts.
 - d. Less experienced superintendents who did not apply for funds also tended to want more materials than their colleagues who possessed greater amounts of experience.

5. A fear of increased Federal and state control was apparently not associated with the decision to apply for funds. Although statistical significance did not occur, the data provided the following observations.
 - a. More experienced superintendents expressed more concern about control than those with less experience.
 - b. Superintendents with the least amount of teaching experience expressed the greatest concern about Federal and state control.
6. The application forms developed by the Division of Vocational Education were apparently not associated with the decision to apply for funds.
 - a. In general, however, superintendents who did not apply were less pleased with the application forms than were those who applied.
7. Although no significant difference was observed between the two groups of superintendents, most superintendents felt the matching fund requirement was a serious obstacle to program development.
 - a. Superintendents employed by small, poor school districts were much more concerned about the matching fund provision than superintendents from larger, wealthier districts.
 - b. More experienced superintendents from both subpopulations expressed less concern about the matching fund provision than their less experienced colleagues.

8. Since superintendents in both subpopulations expressed an equal desire for additional state aid to satisfy the matching fund requirement for vocational education, this factor cannot be assumed to have been associated with the decision to apply for funds. Most superintendents favored increased state aid and no statistical significance occurred.
 - a. Superintendents from poorer districts expressed the greatest desire for additional state aid.
 - b. Respondents who had been employed for longer periods as superintendents expressed less concern relative to the need for additional state aid for vocational education.
9. A lack of understanding of vocational teacher certification was apparently not associated with the decision to apply for funds. Once again, no statistical significance was obtained.
 - a. Both those superintendents who applied and those who did not apply for funds exhibited a limited understanding of vocational teacher certification.
10. A difference in opinion as to whether vocational education should be offered as a single skill or family of occupations may have had some influence on the decision to apply for funds. A significantly greater number of the superintendents who applied for funds compared to those who did not apply perceived vocational education as being offered as a family or cluster of occupations.

- a. Superintendents employed in districts having small high school enrollments were the most positive of all superintendents in believing that vocational education should be offered as a family of occupations.
 - b. More experienced superintendents from both subpopulations were less positive in their beliefs that families of occupations represented the correct curricular arrangement for vocational education.
11. The priorities established by the State Division of Vocational Education for use of funds under the provisions of the Vocational Education Act of 1963 were not a measurable factor in the decision to apply for funds. Although statistical significance did not occur, both groups of superintendents expressed dissatisfaction with the priorities.
12. The difference in the level of general or overall understanding between the superintendents in the two subpopulations was not statistically significant and therefore this variable was probably not associated with the decision to apply for funds.
- a. Superintendents who did not apply were in general less knowledgeable of the provisions of the Act than were those who applied.
13. The difference in understanding between the two subpopulations was statistically significant for the specific provisions of the Act dealing with vocational

agricultural education, vocational homemaking education, vocational trade and industrial education, and the work study program.

Recommendations

Many vocational educators seemed to feel that lack of flexibility and insufficient funds in previous vocational education legislation were responsible to a great extent for the slow degree of development of vocational education programs in local schools. The Vocational Education Act of 1963 provided both additional flexibility and additional funds. Yet only 42.6 per cent of all eligible school districts applied for these funds during the first two years they were available. This study attempted to determine what other factors were associated with the decision to seek funds and what additional efforts would result in increased vocational program development. On the basis of the results of this study, it would seem that expanded vocational education offerings would probably result if the following recommendations are followed.

1. Certain superintendents in larger, wealthier school districts indicated a particularly favorable attitude toward vocational education. In addition, these superintendents tended to be more highly educated and possessed fewer years of administrative experience. Additional program development, for the benefit of all vocational education in Michigan, would probably be realized if personnel in the State Division of

Vocational Education encouraged these superintendents to assume responsibility for conducting innovative pilot and demonstration projects.

2. The perception of more experienced superintendents must be improved through concentrated efforts by vocational educators before additional vocational program development can be expected in their districts.
3. Before a great deal of expansion or improvement can be expected in Michigan's vocational education program, the positive advantages of vocational education to the non-college bound youth and the methods by which these types of programs can be offered must be fully explained to superintendents who do not have vocational education programs in their districts or who are not actively seeking ways to improve existing programs. Such efforts are especially important with superintendents who are employed in the smaller, less wealthy districts.
4. Efforts must be made to obtain additional state aid for districts offering or wishing to offer vocational education programs.
5. A full and clear explanation of vocational teacher certification requirements should lead to additional vocational program development.
6. The concept of clusters or families of occupational training in vocational education should be publicized, explained and emphasized.
7. Additional printed materials explaining the goals and

purposes of vocational education as well as program guidelines and curricular materials should be developed by the State Division of Vocational Education.

8. Additional consultant assistance should be provided by the staff of the Division of Vocational Education. This is especially true from a promotional standpoint whereby staff consultants should concentrate less on those districts currently operating vocational programs and more on those which should develop such programs.
9. More informative printed materials of a promotional nature should be developed by State Vocational Education staff to assist superintendents in interpreting the provisions of the Vocational Education Act of 1963 to their communities.
10. The Division of Vocational Education staff should increase its efforts to assure that all superintendents understand vocational education in general as well as the provisions of vocational education legislation. Coupled with the printed materials recommended above, in-service workshops for school administrators should be developed on a regional basis to provide this information.

Recommendations for Further Studies

1. With this study as a base, additional factors, especially those found in the superintendent's environment, such as geographic distribution of his district, composition of his school board and the industrial

development of his district should be evaluated to determine if additional factors can be identified which are associated with the superintendent's decision to apply for funds.

2. An analysis of methods by which additional state aid could be obtained for vocational education should be undertaken. A study such as this would provide the Michigan Department of Education with concrete evidence to present to the Michigan legislature.
3. Since many superintendents perceived vocational education as training in a cluster or family of occupations, a study needs to be undertaken which would identify the occupations within various clusters as well as the clusters pertaining to Michigan's economic structure.
4. The type and amount of leadership exerted by the State Board of Education and the Department of Education are not well defined in the new Constitution. A study designed to assist in determining the role of these two bodies as perceived by Michigan educators would provide realistic direction to state educational leaders.
5. The development of the area vocational-technical school concept has resulted in confusion regarding the role of local vocational education programs in relation to the emerging area vocational programs. A study to define the role to be played by each type of program should be undertaken.
6. The Michigan Vocational Evaluation Project was

conducted prior to the implementation of the Vocational Education Act of 1963. A study similar to this earlier research project would provide a more accurate picture of vocational education in Michigan today.

7. Program planning and budgeting systems, cost benefit analysis and vocational information evaluation systems are all on the threshold of adoption in Michigan and the nation. One or more studies should be conducted to show the relationship of one system to the other and the best way to implement the adoption of these systems at the state and local level.

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APPENDICES

VOCATIONAL EDUCATION OPINION INVENTORYOF SCHOOL SUPERINTENDENTS

Definition: For the purposes of this study the term "vocational education" means vocational or technical training or retraining conducted as a part of a program designed to fit individuals for gainful employment as semiskilled or skilled workers or technicians in recognized occupations.

Part I

DIRECTIONS: Part 1 is devoted to a collection of biographical data. Please answer each question below by checking the appropriate blank. More than one check may be used for some items.

- | | |
|--|--|
| <p>1. I have been employed as a superintendent by <u>this</u> Board of Education for:</p> <p>a. ☐ less than 1 year</p> <p>b. ☐ 1 to 3 years</p> <p>c. ☐ 4 to 6 years</p> <p>d. ☐ 7 to 9 years</p> <p>e. ☐ 10 to 12 years</p> <p>f. ☐ 13 years or over</p> | <p>5. My teaching experience was in:</p> <p>a. ☐ English</p> <p>b. ☐ Social Science</p> <p>c. ☐ Art</p> <p>d. ☐ Music</p> <p>e. ☐ Mathematics</p> <p>f. ☐ Physical science</p> <p>g. ☐ Biological science</p> <p>h. ☐ Physical education</p> <p>i. ☐ Agriculture</p> <p>j. ☐ Business, Office or Distributive education</p> <p>k. ☐ Trade and industrial education</p> <p>l. ☐ Home Economics</p> <p>m. ☐ Industrial Arts</p> <p>n. ☐ Other (Please specify)</p> <p>_____</p> <p>_____</p> |
| <p>2. My length of previous employment as a school superintendent was:</p> <p>a. ☐ none</p> <p>b. ☐ 1 to 3 years</p> <p>c. ☐ 4 to 6 years</p> <p>d. ☐ 7 to 9 years</p> <p>e. ☐ 10 to 12 years</p> <p>f. ☐ 13 to 15 years</p> <p>g. ☐ 16 to 19 years</p> <p>h. ☐ 20 years or more</p> | |
| <p>3. My length of employment as a teacher was:</p> <p>a. ☐ none</p> <p>b. ☐ 1 to 3 years</p> <p>c. ☐ 4 to 6 years</p> <p>d. ☐ 7 to 9 years</p> <p>e. ☐ 10 to 12 years</p> <p>f. ☐ 13 years or over</p> | <p>6. My undergraduate major was:</p> <p>a. ☐ English</p> <p>b. ☐ Social Science</p> <p>c. ☐ Art</p> <p>d. ☐ Music</p> <p>e. ☐ Mathematics</p> <p>f. ☐ Science</p> <p>g. ☐ Physical education</p> <p>h. ☐ Agriculture</p> <p>i. ☐ Business, Office or Distributive education</p> <p>j. ☐ Trade and industrial education</p> <p>k. ☐ Home Economics</p> <p>l. ☐ Industrial Arts</p> <p>m. ☐ Other (Please specify)</p> <p>_____</p> <p>_____</p> |
| <p>4. My academic preparation includes:</p> <p>a. ☐ Four-year college degree</p> <p>b. ☐ Work beyond four-year degree but less than Master's degree</p> <p>c. ☐ Master's degree</p> <p>d. ☐ Work beyond Master's degree but less than Doctor's degree</p> <p>e. ☐ Doctor's degree</p> | |

7. My experience in work other than education was:

(Please list job title and length of employment for all positions you held for more than six months.)

Job Title	Length
_____	_____
_____	_____
_____	_____
_____	_____

8. Did you or your representative attend one of the regional meetings conducted by the State Division of Vocational Education in January, 1965 pertaining to the application for funds available under the Vocational Education Act of 1963?

() Yes () No

Part II

DIRECTIONS: Part II is designed to learn how you feel about vocational education in general and specific operating procedures of the Division of Vocational Education in particular. Please respond to each statement in terms of your own personal beliefs or opinions. Please circle the response which corresponds the closest to your feeling about each item.

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

Please do not leave any item out--there is no right or wrong answer--it is just how you feel about things. Other people may have different opinions.

Here is an example:

☒ A D SD Vocational education is best suited to the low achiever.

This person strongly agrees with this item and thus would probably recommend vocational education to only certain types of students.

-
- | | | | | | |
|----|---|---|----|----|---|
| SA | A | D | SD | 1. | The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the larger school districts. |
| SA | A | D | SD | 2. | One of the benefits derived from the Vocational Education Act of 1963 is the fact that costly vocational education programs can be partially financed with federal funds thereby leaving significantly more local funds to improve programs in general education. |
| SA | A | D | SD | 3. | Because of the complexity of today's agriculture, industry, and business, vocational education should be provided primarily in specialized area vocational-technical education school facilities or at the post-high school level. |

- SA A D SD 4. Vocational education should be provided in families or clusters of occupations at the secondary level so that high school graduates will be equally prepared to enter the labor market or pursue advanced training at the post-high school level.
- SA A D SD 5. The provisions of the new Act make state teacher certification requirements for vocational education unrealistic.
- SA A D SD 6. The Vocational Education Act of 1963 is just one more indication of the growing problem of state and federal control of education.
- SA A D SD 7. More consultative services should be provided by the Division of Vocational Education in homemaking to assist local educational agencies in developing courses and programs leading to wage-earning occupations.
- SA A D SD 8. An analysis of the Vocational Education Act of 1963 and its relationship to other new federal Acts relating to education is badly needed by local educational agencies.
- SA A D SD 9. The Division of Vocational Education should prepare a booklet outlining the goals and objectives of vocational education in Michigan under the Vocational Education Act of 1963.
- SA A D SD 10. A well-written presentation of the Vocational Education Act of 1963 which is easily understood by the layman would be very helpful to me in interpreting the Vocational Education Act of 1963 to my community.
- SA A D SD 11. Vocational education in families or clusters of occupations can only be provided in any realistic manner in an area vocational education facility or a community college.
- SA A D SD 12. Although the Vocational Education Act of 1963 is another example of increased state and federal control, the benefits to young people far outweigh its disadvantages.
- SA A D SD 13. Due to the uniqueness of each local situation, no one purpose, in terms of priorities, should receive any more weight or a higher priority for Vocational Education Act of 1963 funds than another.
- SA A D SD 14. Since federal funds are in essence only state funds being returned to the state, I do not view federal legislation aimed at expanding vocational education as a threat to local autonomy.
- SA A D SD 15. Every student should have the benefit of a well rounded liberal education and vocational education at the secondary level does little to strengthen this concept.
- SA A D SD 16. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were another indication of the increased control being exerted by state and federal regulations.

- SA A D SD 17. Education agencies receive an adequate amount of state financial assistance for vocational education.
- SA A D SD 18. A flat reimbursement rate for all phases of vocational education is unrealistic. Reimbursement rates should vary according to a district's ability to provide local funds.
- SA A D SD 19. The provisions of the Vocational Education Act of 1963 will help schools provide a more realistic educational program to far more students than can be assisted through local efforts alone.
- SA A D SD 20. Additional guidelines which would assist local educational agencies in the development of sound vocational education programs as provided for in the Vocational Education Act of 1963 should be prepared by the Division of Vocational Education.
- SA A D SD 21. The high unemployment rate in this country can be at least partially attributed to the lack of a realistic vocational education program in most secondary schools.
- SA A D SD 22. Realistic vocational education must be offered at the secondary level in order to assist all students to become productive members of society.
- SA A D SD 23. With the advanced technology in this country and the continued change in the employment picture, training for clusters or families of occupations rather than for a single skill is the most realistic approach.
- SA A D SD 24. Due to the complexity of the current program available in vocational education, application forms and informational material cannot be adequately interpreted without the benefit of regional informational meetings conducted by personnel of the Division of Vocational Education.
- SA A D SD 25. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were unnecessarily detailed.
- SA A D SD 26. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1965-66 were unnecessarily detailed.
- SA A D SD 27. More consultative services should be provided by the Division of Vocational Education to assist superintendents in the establishment and operation of area vocational schools.
- SA A D SD 28. Vocational education is best suited to the low achiever.
- SA A D SD 29. Every student, regardless of ability, should be exposed to the realities of the world of work; every student should therefore be encouraged to take some courses in vocational education to assure a well rounded educational experience.

- SA A D SD 30. State funds have historically been inadequate to assist expansion of vocational education to any degree. This situation should be corrected through the addition of a substantial amount of state money earmarked for the expansion of vocational education programs.
- SA A D SD 31. It has been possible to interpret the Vocational Education Act of 1963 to my community with the materials available to me.
- SA A D SD 32. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 and the attached explanation were informative and easily understood.
- SA A D SD 33. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1965-66 and the attached explanation were informative and easily understood.
- SA A D SD 34. The Vocational Education Act of 1963 will allow schools to realistically meet many of the vocational needs of a far larger percentage of secondary students.
- SA A D SD 35. To my knowledge there has been no effort by the North Central Association to recognize special teaching certificates in vocational education.
- SA A D SD 36. The Division of Vocational Education should prepare curricular guides for training in the new and emerging occupations in the labor market which are now reimbursable under the Vocational Education Act of 1963.
- SA A D SD 37. The Vocational Education Act of 1963 will be most beneficial to the local school system as a result of the provision to help dropouts and/or students who have graduated and desire post-high school education.
- SA A D SD 38. Additional state money should be made available to assist the local school district in procuring its fifty per cent matching share of the total program of vocational education.
- SA A D SD 39. Due to the high cost of vocational education, federal aid as provided in the Vocational Education Act of 1963 is the only realistic source of funds.
- SA A D SD 40. More consultative services should be provided in guidance to assist in implementing the provisions of the Vocational Education Act of 1963.
- SA A D SD 41. The educational system in this country has been geared, far too long, toward the college preparatory program to the detriment of providing realistic programs of vocational education.
- SA A D SD 42. Many of the new courses now possible under the Vocational Education Act of 1963 will not be offered because of rigid vocational education teacher certification requirements.

- SA A D SD 43. The most positive aspect of the Vocational Education Act of 1963 in terms of the local school system is the ability to provide more comprehensive adult education programs.
- SA A D SD 44. To adequately plan for program improvement, local school systems should be given a minimum of two months between the receipt of applications and the due date.
- SA A D SD 45. Vocational Education should be available to all people of all ages in all communities.
- SA A D SD 46. There is a very real need for more prepared materials to assist me in interpreting the Vocational Education Act of 1963 to my community.
- SA A D SD 47. Under the concept of local autonomy, local educational agencies have been unable to provide adequate vocational education and consequently the state should increase its leadership and control in order to provide adequate programs.
- SA A D SD 48. The Division of Vocational Education should prepare a booklet outlining the services it performs and explaining how these services can be obtained in order to best implement the provisions of the Vocational Education Act of 1963.
- SA A D SD 49. Since realistic vocational education programs should be developed on the basis of state as well as local manpower needs, the state should assume greater financial responsibility in providing such programs.
- SA A D SD 50. The Division of Vocational Education has the responsibility of establishing priorities on the allocation of funds to assure the best possible program on a statewide basis with the amount of money available.
- SA A D SD 51. It is unrealistic to withhold needed instruction by demanding that every vocational education teacher be certifiable if he or she possesses skills which no certified teacher possesses or if no certified teacher is available for employment.
- SA A D SD 52. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the establishment of new programs or the expansion of old ones almost to the exclusion of maintaining currently operating programs of vocational education.
- SA A D SD 53. A specially certified vocational teacher should be employed only if he or she is required to meet the standards for permanent certification within a specified period of time.
- SA A D SD 54. The requirement of the Vocational Education Act of 1963 for local schools to match federal funds at at least fifty per cent works a greater hardship on small school systems than on the large systems.
- SA A D SD 55. Vocational education is not a school responsibility. It can and should be provided by employers after workers enter the labor market.

- SA A D SD 56. A fifty per cent reimbursement rate is still not sufficient to allow my district to provide a vocational education program of the scope and quality we would like to offer.
- SA A D SD 57. State funds should only be provided when they assist all students. I would therefore be opposed to additional state funds for providing expanded programs of vocational education.
- SA A D SD 58. The matching funds provision of the Vocational Education Act of 1963 makes it possible for schools to finally provide an adequate program in vocational education.
- SA A D SD 59. The needs of students in today's labor market can best be met if students in vocational education are trained for a single skill rather than a "cluster" or "family" of occupations.
- SA A D SD 60. A reimbursement rate greater than fifty per cent should be strongly discouraged from the standpoint that it would tend to reduce local effort.
- SA A D SD 61. Vocational education is not meant for, and has limited or no value to, a student who has the academic capabilities to attend college.
- SA A D SD 62. The Vocational Education Act of 1963 has been very well interpreted to local school systems.
- SA A D SD 63. If more materials to assist in interpreting the Vocational Education Act of 1963 to my community had been available earlier, my school system would have been able to take better advantage of the funds available under the Vocational Education Act of 1963 for fiscal 1964-65.
- SA A D SD 64. A great deal of emphasis and a high priority for funds should be assigned to the construction of area vocational-technical school facilities.
- SA A D SD 65. More consultative services should be provided by the Division of Vocational Education to develop programs in Adult Education as a result of increased emphasis in this area under the Vocational Education Act of 1963.
- SA A D SD 66. More consultative services should be provided by the Division of Vocational Education in program development for the disadvantaged to help implement this provision of the Vocational Education Act of 1963.
- SA A D SD 67. Vocational education is inappropriate at the secondary level since students are too young and immature to make a vocational choice.

Part III

DIRECTIONS: Part 111 is designed to measure the adequacy with which the Division of Vocational Education provided an interpretation of the provisions of the Vocational Education Act of 1963 to superintendents. The statements in this section are either true or false. Please circle the appropriate answer. Your score will be a measure of how well the Division of Vocational Education discharged its responsibility and does not in any way reflect upon the respondent. In the event you feel you have not been given sufficient information to respond to a particular statement, please circle the "I" which denotes Insufficient Information.

- T F I 1. In Office Education, single courses as well as a series of courses are now reimbursable under the Vocational Education Act of 1963.
- T F I 2. Post-high school vocational education facilities receiving federal funds under the Vocational Education Act of 1963 must admit drop-outs as well as high school graduates.
- T F I 3. Distributive education courses as provided for under older federal legislation are no longer reimbursable as a result of the provisions of the Vocational Education Act of 1963.
- T F I 4. As a result of the Vocational Education Act of 1963, some Office Education courses are now reimbursable.
- T F I 5. Local matching funds are not required in the work-study program until after fiscal year 1965-66.
- T F I 6. Existing programs of agricultural education will no longer qualify for reimbursement as a result of the provisions of the Vocational Education Act of 1963.
- T F I 7. Industrial Arts education is now reimbursable as a result of the Vocational Education Act of 1963.
- T F I 8. Any student who is enrolled in a school which offers vocational education programs is eligible to participate in the work-study program.
- T F I 9. Only those programs for adults who are available for full-time study can be reimbursed under the Vocational Education Act of 1963.
- T F I 10. One of the major advantages of the Vocational Education Act of 1963 is the fact that, unlike older federal legislation in vocational education, it is written so that programs can change in accordance with the labor market needs.
- T F I 11. Only those Vocational Home Economics courses defined as leading to a wage-earning occupation are reimbursable with funds provided under the Vocational Education Act of 1963.
- T F I 12. Federal funds available under the Vocational Education Act of 1963 can be allocated to post-high school vocational and technical education institutions so long as programs receiving reimbursement lead to a baccalaureate degree or are professional in nature.

- T F I 13. The Vocational Education Act of 1963 encourages research and experimental programs which give particular attention to the needs of young persons living in economically depressed communities and having academic, socio-economic or other handicaps that prevent them from succeeding in regular vocational education programs.
- T F I 14. The Vocational Education Act of 1963 requires state or local matching funds be provided at whatever level the state determines.
- T F I 15. Funds available under the Vocational Education Act of 1963 may not be used to purchase initial equipment when constructing new facilities.
- T F I 16. Local educational agencies can now receive reimbursement for personnel providing placement services under the Vocational Education Act of 1963.
- T F I 17. Single courses which would provide training or retraining for adults already in the labor market are reimbursable under the Vocational Education Act of 1963.
- T F I 18. Under the Vocational Education Act of 1963 provision has been made for reimbursement of many more types of programs and facilities than were available under old legislation.
- T F I 19. Federal legislation has not demanded minimum curriculum standards in area vocational-technical schools.
- T F I 20. A certain proportion of all Vocational Education Act of 1963 funds has been earmarked for area vocational-technical schools or for the development of vocational programs for post-high school youth.
- T F I 21. One of the major provisions of the Vocational Education Act of 1963 was the pooling of all federal vocational education funds under the regulations of the new Act.
- T F I 22. Adult education under the 1963 Act is designed for those people who have already entered the labor market but desire retraining or job upgrading.
- T F I 23. The Vocational Education Act of 1963 will not necessarily affect the curriculum of existing vocational agriculture programs.
- T F I 24. Youths identified as having special educational needs may be assisted with Vocational Education Act of 1963 funds even though they are not enrolled in courses leading to a wage-earning occupation.
- T F I 25. Post-high school education under the Vocational Education Act of 1963 is designed for high school graduates or those who have left school but are available for full-time enrollment.
- T F I 26. As a result of the Vocational Education Act of 1963 and amendments to existing legislation, funds are now earmarked to provide programs in Home Economics which are both wage earning and non-wage earning in nature.
- T F I 27. The work-study program is a student assistance program which requires the employment of students in jobs related to their educational objectives.

- T F I 28. Youth with special needs may be handicapped academically, socially, emotionally or mentally.
- T F I 29. The Vocational Education Act of 1963 has provided for more flexibility by allowing reimbursement for courses which are not themselves vocational but which correct educational deficiencies in persons preparing for a vocation.
- T F I 30. The Vocational Education Act of 1963 earmarks a certain proportion of funds available under its provisions for research studies.
- T F I 31. The three-hour time requirement for day-trade courses in Vocational Trade and Industrial Education has been eliminated as a result of the Vocational Education Act of 1963 and amendments to existing legislation.
- T F I 32. As a result of the 1963 Act, existing legislation was amended to provide a great deal more flexibility in program planning and occupational objectives in existing agricultural education programs.
- T F I 33. The Vocational Education Act of 1963 requires cooperation between local educational agencies and the state Employment Security Commission.
- T F I 34. Office education and distributive education are synonymous terms as used in the Vocational Education Act of 1963.
- T F I 35. The focus of the Vocational Education Act of 1963 differs from older vocational education legislation in that the new Act is more concerned with groups of people than with the categories of vocations for which they will prepare.
- T F I 36. First year courses in Office Education now qualify for reimbursement as a result of the provisions of the Vocational Education Act of 1963.
- T F I 37. The Vocational Education Act of 1963 makes it mandatory for local educational agencies which receive funds from this Act to evaluate their vocational education programs.
- T F I 38. One of the provisions of the Vocational Education Act of 1963 was to provide a great many more funds earmarked for the expansion of Distributive Education than have ever before been available.
- T F I 39. In Vocational Trade and Industrial Education, courses leading to a cluster or family of occupations are now reimbursable even though some of them are defined as "related courses" and are not necessarily vocational in nature.
- T F I 40. Area vocational-technical schools can be of either a secondary or post-secondary nature or both.
- T F I 41. Federal funds under older vocational education legislation (Smith-Hughes Act, George-Barden Act) may not be combined with funds available under the Vocational Education Act of 1963 nor used for the same purposes.
- T F I 42. The majority of the provisions of the Vocational Education Act of 1963 are temporary authorizations.
- T F I 43. The Vocational Education Act of 1963 will not affect the type of

APPENDIX B

COPY OF FORM SUBMITTED TO PANEL OF JURORS

TO: Division of Vocational Education Staff

FROM: William F. Pierce

SUBJECT: Evaluation of Statements for Proposed
Dissertation

A portion of the attached statements will be used to construct a questionnaire for my dissertation. The study will attempt to determine if certain pre-selected factors within a superintendent or his environment influenced his decision to submit an application for new or expanded programs of vocational education under the Vocational Education Act of 1963. In addition, certain questions relative to the superintendent's perception of the duties and responsibilities of the Division of Vocational Education resulting from the provisions of the new Act will be asked.

Mr. Winger has given me permission to request the members of the Division of Vocational Education to act as a panel of jurors to assist me in developing the questionnaire.

There are three types of statements included in the attached questionnaire:

1. Those that will attempt to measure the superintendent's perception of the role vocational education should assume in the total curriculum,
2. Those that will attempt to measure his understanding of the 1963 Act, and,
3. Those that will attempt to determine what superintendents feel the staff of the Division of Vocational Education should do as a result of the provisions of the new Act.

On the final questionnaire, all opinion statements will be answered as to the amount of agreement or disagreement felt toward the statement. For example, one statement might read:

SA A D SD For the first time in educational history, the Vocational Education Act of 1963 will allow schools to realistically meet many of the vocational needs of a large percentage of secondary students.

The respondent will circle one of the four choices provided. (SA = strongly agree, A = agree, D = disagree, SD = strongly disagree.)

The statements pertaining to the superintendent's understanding of the Act will all be on a true or false basis. In order not to alienate the superintendents, the explanation for making the statements true or false will be worded in such a way as to indicate that any lack of understanding is due to a lack of information provided by the Division of Vocational Education and not a result of any personal inadequacies on the part of the superintendent.

In addition, statements will be assigned to the final questionnaire in a random manner. Therefore, types one and three as listed above will be mixed randomly throughout the first part of the questionnaire. Type two statements will be randomly mixed in part two of the questionnaire without regard to the section of the Act to which the statement pertains.

You are, of course, under no obligation to assist me in this endeavor but your help will be greatly appreciated.

INSTRUCTIONS

Even though the statements will be mixed on the final questionnaire, they are grouped on the attachment according to intent. You will note that some statements express the same thought as others in the same section. This was done purposefully to determine if one way of stating a point was more clear and concise than another. When this occurs, please select the one you favor (if you select either) and discard the other.

The following fifteen statements are designed to measure the superintendent's perception of vocational education. Please rate the ten you feel best accomplish this purpose by either checking or numbering the ten you select. Numbering does not need to indicate how you would rank the statements selected. Space has been left for any comments or suggestions. If you feel there are not ten statements which measure the superintendent's perception, please indicate this in the comments section. Your constructive criticism is being solicited.

1. Vocational education should be available to all people of all ages in all communities.
2. Vocational education is best suited to the low achiever.
3. Vocational education is not meant for, and has limited or no value to, a student who has the academic capabilities to attend college.
4. To be most effective, the curriculum should include academic courses having application to vocational education subjects.
5. Vocational education should continue to be focused on the four major historical disciplines (that is, agriculture, trade and industrial education, business and homemaking).
6. Vocational education is far too costly and benefits far too few to be justifiable at the secondary level.
7. Because of the complexity of needs of industry and business today, comprehensive high schools are incapable of offering realistic programs of vocational education.
8. Because of the complexity of needs of industry and business today, vocational education should be provided in specialized area vocational-technical education school facilities or at the post-high school level.
9. Every student should have the benefit of a well rounded liberal education and vocational education at the secondary level does little to strengthen this concept.
10. The educational system in this country has been geared, far too long, toward the college preparatory student to the detriment of providing realistic programs of vocational education.
11. Every student, regardless of ability, should be exposed to the realities of the world of work; every student should therefore be encouraged to take some courses in vocational education to assure a well rounded educational experience.
12. The high unemployment rate in this country can be at least partially attributed to the lack of a realistic vocational education program in most secondary schools.
13. The vocational education program has been adequate to meet the needs of most communities.

14. Vocational education is inappropriate at the secondary level since students are too young and immature to make a vocational choice.
15. Vocational education is not a school responsibility. It can and should be provided by employers after workers enter the labor market.

Comments:

The following group of statements is designed to measure the superintendent's understanding of the provisions of the 1963 Act. The first fifteen are of a general nature. Please select ten as directed above. Space for comments has been provided. Part of all the statements pertaining to understanding has been purposefully made false in an attempt to increase the measurement of the respondent's understanding of the Act.

General Information Questions

1. Federal funds under older vocational education legislation (Smith-Hughes Act, George-Barden Act) may now be combined with funds available under the Vocational Education Act of 1963 and used for the same purposes.
2. Completely equipped residential schools are one of the provisions of the Vocational Education Act of 1963.
3. The Vocational Education Act of 1963 requires state or local matching funds at no less than fifty per cent.
4. Under the Vocational Education Act of 1963 provision has been made for reimbursement of many more types of programs and facilities than were available under old legislation.
5. One of the major advantages of the Vocational Education Act of 1963 is the fact that, unlike older federal legislation in vocational education, it is written so that programs can change in accordance with the labor market needs.

6. The focus of the Vocational Education Act of 1963 differs from older vocational education legislation in that the new Act is more concerned with groups of people than with the categories of vocations for which they will prepare.
7. The Vocational Education Act of 1963 has provided for more flexibility by allowing reimbursement for courses which are not themselves vocational but which correct educational deficiencies in persons preparing for a vocation.
8. The Vocational Education Act of 1963 earmarks a certain proportion of funds available under its provisions for research studies.
9. Funds available under the Vocational Education Act of 1963 may not be used to purchase initial equipment when constructing new facilities.
10. The Vocational Education Act of 1963 establishes more distinct categories of people to be served than was true under older vocational education legislation.
11. The majority of the provisions of the Vocational Education Act of 1963 are temporary authorizations.
12. All the provisions of the Vocational Education Act of 1963 were experimental in nature and authorization was therefore approved by Congress for only a four year period.
13. Funds authorized under the Vocational Education Act of 1963 increase from \$60 million in 1964 to \$225 million by 1967.
14. For all intents and purposes, the Vocational Education Act of 1963 will abolish existing programs of vocational education authorized under older federal legislation.
15. One of the major provisions of the Vocational Education Act of 1963 was the pooling of all federal vocational education funds under the regulations of the new Act.

Comments:

The remaining statements pertaining to understanding are listed under ten separate headings. At least five questions have been provided. Please select what you feel to be the best three. Space for comments has once again been provided.

Youth with Special Needs

1. The term "youth with special needs" as found in the Vocational Education Act of 1963 refers primarily to the mentally handicapped.
2. Youth with special needs may be handicapped academically, socially, emotionally or mentally.
3. The Vocational Education Act of 1963 encourages research and experimental programs which give particular attention to the needs of young persons living in economically depressed communities and having academic, socio-economic or other handicaps that prevent them from succeeding in regular vocational education programs.
4. Youths identified as having special educational needs may be assisted with Vocational Education Act of 1963 funds even though they are not enrolled in courses leading to a wage earning occupation.
5. Mentally handicapped students are not considered to be "youth with special needs" as defined in the Vocational Education Act of 1963.

Comments:

Area Vocational-Technical Schools

1. State and federal regulations put virtually no restrictions on area vocational-technical school construction.
2. Federal legislation has demanded minimum curriculum standards in area vocational-technical schools.

3. A certain proportion of all Vocational Education Act of 1963 funds has been earmarked for area vocational-technical schools or for the development of vocational programs for post-high school youth.
4. All school systems are approved to build and conduct area vocational-technical schools if they so choose.
5. Area vocational-technical schools can be of either a secondary or post-secondary nature or both.
6. Federal legislation demands a broader curricula in area vocational-technical schools in a post-high school facility than in a high school facility.

Comments:

Business

1. As a result of the Vocational Education Act of 1963, more courses in Business Education are reimbursable than ever before.
2. The Vocational Education Act of 1963 provided a greater amount of funds earmarked for Business Education than ever before.
3. All first year courses in Business Education now qualify for reimbursement as a result of the provisions of the Vocational Education Act of 1963.
4. Distributive and office education courses as provided for under older federal legislation are no longer reimbursable under the provisions of the Vocational Education Act of 1963.
5. In Business Education, single courses as well as a series of courses such as Distributive Education are reimbursable under the Vocational Education Act of 1963.

Comments:

Agriculture

1. The 1963 Act continues to require instruction in agricultural education to lead to an occupation of farming even though this occupation declines in importance in the labor market each year.
2. Funds from the 1963 Act are not available to agricultural education since vocational agriculture does not fit the definition of "wage earning" as defined by the Act.
3. As a result of the 1963 Act, existing legislation was amended to provide a great deal more flexibility in program planning and occupational objectives in existing agricultural education programs.
4. Existing programs of agricultural education will no longer qualify for reimbursement as a result of the provisions of the Vocational Education Act of 1963.
5. The Vocational Education Act of 1963 will not necessarily affect the curriculum of existing vocational agriculture programs.
6. The Vocational Education Act of 1963 makes it mandatory to discontinue providing a certain proportion of federal funds for vocational agricultural education.

Comments:

Homemaking

1. As a result of the Vocational Education Act of 1963, Vocational Home Economics programs are no longer reimbursable.
2. Only those Vocational Home Economics courses defined as leading to a wage earning occupation are reimbursable with funds provided under the Vocational Education Act of 1963.
3. As a result of the Vocational Education Act of 1963 and amendments to existing legislation, funds are now earmarked to provide programs in Home Economics which are both wage earning and non-wage earning in nature.
4. The Vocational Education Act of 1963 will not affect the type of course offerings in Home Economics education.
5. Because of the wording and focus of the Vocational Education Act of 1963, Home Economics is no longer considered a vocational course.

Comments:

Trade and Industrial Education

1. The three-hour time requirement for day-trade courses in Vocational Trade and Industrial Education has been eliminated as a result of the Vocational Education Act of 1963 and amendments to existing legislation.
2. Industrial Arts education is now reimbursable as a result of the Vocational Education Act of 1963.
3. In Vocational Trade and Industrial Education, courses leading to a cluster or family of occupations are now reimbursable even though some of them are defined as "related courses" and are not necessarily vocational in nature.

4. Under the provisions of the Vocational Education Act of 1963, it is possible to construct a new facility devoted entirely to technical training of a non-professional nature and which does not lead to a baccalaureate degree.
5. One of the advantages of the new Act is the provision whereby costly equipment in Trade and Industrial Education courses can be partially financed with federal funds.

Comments:

Placement and Follow-Up

1. The Vocational Education Act of 1963 makes it mandatory for local educational agencies which receive funds from this Act to soon begin evaluative studies of their vocational education programs.
2. Occupational placement services are now reimbursable as a result of the Vocational Education Act of 1963.
3. The Vocational Education Act of 1963 makes provisions for local educational agencies to make use of the services provided by the state Employment Security Commission.
4. Local educational agencies receiving funds under the Vocational Education Act of 1963 must provide information on graduates of vocational education programs to the state Employment Security Commission.
5. Local educational agencies can now receive reimbursement for personnel providing placement services under the Vocational Education Act of 1963.

Comments:

Post-High School Vocational and Technical Education

1. Post-high school vocational education facilities receiving federal funds under the Vocational Education Act of 1963 must admit dropouts as well as high school graduates.
2. Federal funds available under the Vocational Education Act of 1963 can be allocated to post-high school vocational and technical education facilities so long as programs receiving reimbursement do not lead to a baccalaureate degree or are not professional in nature.
3. Post-high school education under the Vocational Education Act of 1963 is designed for high school graduates or those who have left school but are available for full-time enrollment.
4. One of the weaknesses of the Vocational Education Act of 1963 is the provision that the only portion of post-high school technical programs for which reimbursement can be requested is the eligible instructor's salary.
5. To be reimbursable under the Vocational Education Act of 1963, post-high school vocational or technical education must be in two year course sequences which lead to an Associate of Arts degree or its equivalent.

Comments:

Vocational Education for Adults

1. Adult education under the 1963 Act is designed for those people who have already entered the labor market but desire retraining or job upgrading.
2. Only those programs for adults who are available for full-time study can be reimbursed under the Vocational Education Act of 1963.

3. Single courses which would provide training or re-training for adults already in the labor market are reimbursable under the Vocational Education Act of 1963.
4. "Vocational Education for Adults" and "Post-High School Vocational and Technical Education" are synonymous phrases as used in the Vocational Education Act of 1963.
5. Vocational Education for Adults is reimbursable only if offered at an educational agency whose adult classes are technical one or two year terminal courses.

Comments:

Work-Study Program

1. The work-study program is a student assistance program requiring employment of students in a public agency.
2. As a part of the Vocational Education Act of 1963 the work-study program is a permanent appropriation.
3. Local matching funds are not required in the work-study program until after fiscal year 1965-66.
4. Any student who is enrolled in a school which offers vocational education programs is eligible to participate in the work-study program.
5. After fiscal 1966, local educational agencies wishing to participate in the work-study program must provide one dollar of local or state funds for each three dollars of federal funds.

Comments:

The final group of statements is designed to obtain a measure of the superintendent's beliefs and perceptions about what the responsibilities of the staff of the Division of Vocational Education should be as a result of the provisions of the 1963 Act.

The specific question being asked is listed at the top of the page and is underlined. Listed below the specific question are at least ten statements which attempt to answer the underlined question. Please select five of the ten or more statements provided for each underlined question.

How do superintendents perceive the Vocational Education Act of 1963 as affecting public schools?

1. The provisions of the Vocational Education Act of 1963 will help schools provide a more realistic educational program to far more students than can be assisted through local efforts alone.
2. The Vocational Education Act of 1963 is an inequity since it will benefit, at best, twenty to thirty per cent of the secondary school enrollment.
3. The Vocational Education Act of 1963 was designed to aid in-school youth, out of school youth, disadvantaged youth and adults. In practice, however, it will probably provide little more aid to these classes of individuals than have historical vocational education programs.
4. For the first time in educational history, the Vocational Education Act of 1963 will allow schools to realistically meet many of the vocational needs of a large percentage of secondary students.
5. The greatest advantage of the Vocational Education Act of 1963 is its provision for helping disadvantaged youth.
6. The most positive aspect of the Vocational Education Act of 1963 in terms of the local school system is the ability to provide more comprehensive adult education programs.
7. The Vocational Education Act of 1963 will be most beneficial to the local school system as a result of the provision to help dropouts and/or students who have graduated and desire post-high school education.
8. Even though the Vocational Education Act of 1963 is designed to serve people in four different stages of educational need, it will be of most benefit to secondary school students.

9. The greatest benefit derived from the Vocational Education Act of 1963 is the fact that costly vocational education programs can be partially financed with federal funds thereby leaving significantly more local funds to improve programs in general education.
10. The Vocational Education Act of 1963 will have no significant impact on public education.

Comments:

What kinds of informational materials should the state office be developing to assist superintendents in implementing the Act?

1. The Vocational Education Act of 1963 has been very well interpreted to local school systems.
2. The Division of Vocational Education should prepare:
 - a. Curricular guides for training in the new and emerging occupations in the labor market which are now reimbursable under the Vocational Education Act of 1963.
 - b. Guidelines which would assist local educational agencies in the development of sound vocational education programs as provided for in the Vocational Education Act of 1963.
 - c. A philosophy of vocational education in Michigan which is in keeping with the provisions of the Vocational Education Act of 1963.
 - d. A booklet outlining the services it performs and explaining how these services can be obtained in order to best implement the provisions of the Vocational Education Act of 1963.
 - e. Periodic reports on labor market trends in Michigan to assist schools in designing realistic instructional programs under the Vocational Education Act of 1963.

- f. Guidelines which would assist local educational agencies in program development in Agriculture, Homemaking, Business Education and Trade and Industrial Education in light of the provisions of the Vocational Education Act of 1963.
- g. Materials which would be used in conjunction with placement services resulting from one of the provisions of the Vocational Education Act of 1963.
- h. Labor market analyses of each area of the state.
- i. A booklet outlining the goals and objectives of vocational education in Michigan under the Vocational Education Act of 1963.

Comments:

What kinds of consultative services at the state level are most needed by superintendents to assist them in implementing the Act?

- 1. Consultative services available from the Division of Vocational Education are adequate to properly administer the Vocational Education Act of 1963 at the local level.
- 2. More consultative services should be provided in:
 - a. Agricultural education to properly administer these programs under the Vocational Education Act of 1963.
 - b. Area vocational school programs to assist superintendents in the establishment and operation of such schools.
 - c. Homemaking to assist local educational agencies in developing courses and programs leading to wage earning occupations.
 - d. Business Education as a result of possible program expansion under the Vocational Education Act of 1963.

- e. Trade and Industrial Education to assist in providing realistic Trade and Industrial programs under the Vocational Education Act of 1963.
 - f. Guidance to assist in implementing the provisions of the Vocational Education Act of 1963.
 - g. Research to assist schools in developing research studies as provided for under the Vocational Education Act of 1963.
 - h. Work-Study program now available under the Vocational Education Act of 1963.
 - i. Program development for the disadvantaged to help implement this provision of the Vocational Education Act of 1963.
 - j. Program development for programs in Adult Education as a result of increased emphasis in this area under the Vocational Education Act of 1963.
 - k. Program development for programs for the dropout and the graduate needing post-high school education as a result of increased emphasis in this area under the Vocational Education Act of 1963.
3. Contacts with consultants from the Division of Vocational Education have been, for the most part, uninformative or contradictory or both in respect to the provisions of the Vocational Education Act of 1963.

Comments:

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Are superintendents prepared to adequately interpret the Act to their communities or does the Division of Vocational Education need to prepare more factual materials?

- 1. It has been possible to interpret the Vocational Education Act of 1963 to my community with the materials available to me.

2. It has been unnecessary to attempt to interpret the Vocational Education Act of 1963 to my community.
3. There is a very real need for more prepared materials to assist me in interpreting the Vocational Education Act of 1963 to my community.
4. A well written presentation of the Vocational Education Act of 1963 which is easily understood by the layman would be very helpful to me in interpreting the Vocational Education Act of 1963 to my community.
5. A well written presentation of the Vocational Education Act of 1963, which was easily understood by the layman, would have been helpful to me earlier but would be of little value to me now.
6. The implications of the Vocational Education Act of 1963 are too uncertain for the administrator to grasp thoroughly and therefore, an interpretation of the Act to my community would be a futile undertaking.
7. If more materials to assist in interpreting the Vocational Education Act of 1963 to my community had been available earlier, my school system would have been able to take better advantage of the funds available under the Vocational Education Act of 1963 for fiscal 1964-65.
8. The U. S. Office of Education, not the State Department of Public Instruction, should be responsible for providing interpretative materials on federal legislation affecting education.
9. More information is available relative to the Vocational Education Act of 1963 from various types of news media than from the Division of Vocational Education.
10. An analysis of the Vocational Education Act of 1963 and its relationship to other new federal Acts relating to education is badly needed by local educational agencies.

Comments:

Do superintendents view the Act as increasing national and state control?

1. The Vocational Education Act of 1963 is just one more indication of the growing problem of state and federal control of education.
2. Although the Vocational Education Act of 1963 is another example of increased state and federal control, the benefits to young people far outweigh its disadvantages.
3. The Vocational Education Act of 1963 does not increase state and national control of education.
4. Any controls of vocational education imposed on schools by the Vocational Education Act of 1963 are necessary and justified in that they assure the most equitable allocation of funds to all children of the state and nation.
5. Since federal funds are in essence only state funds being returned to the state, I do not view federal legislation aimed at expanding vocational education as a threat to local autonomy.
6. Although in practice I might accept federal funds available under the Vocational Education Act of 1963, in principle I object to federal aid to vocational education and would refuse such aid if equal funds were available from a local source.
7. Due to the high cost of vocational education, federal aid as provided in the Vocational Education Act of 1963 is the only realistic source of funds.
8. Under the concept of local autonomy, local educational agencies have been unable to provide adequate vocational education and consequently the state should increase its leadership and control in order to provide adequate programs.
9. A reduction in programs of vocational education is preferable to a loss of local autonomy.
10. Superintendents should recommend to their boards the refusal of federal funds when their acceptance becomes a real threat to local control.

Comments:

Are current application forms used to request funds satisfactory?

1. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were unnecessarily detailed.
2. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 and the attached explanation were informative and easily understood.
3. Some of the information requested on the application forms is unrealistic since it is often unavailable and only estimates can be provided.
4. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were another indication of the increased control being exerted by state and federal regulations.
5. Application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1964-65 were sketchy and uninformative.
6. The application forms and informational materials received for fiscal 1965-66 are a decided improvement over those provided for fiscal 1964-65.
7. The application forms developed by the Division of Vocational Education and sent to schools for matching funds requests for fiscal 1965-66 are too inclusive and contain far too much detail.
8. All things being equal, the 1965-66 application forms and instructional materials are far superior to those provided for 1964-65.
9. Neither the application forms nor the informational materials provided for either fiscal year 1964-65 or 1965-66 were informative or inclusive enough.
10. Due to the complexity of the current program available in vocational education, application forms and informational material cannot be adequately interpreted without the benefit of regional informational meetings conducted by personnel of the Division of Vocational Education.

11. To adequately plan for program improvement, local school systems should be given a minimum of two months between the receipt of applications and the due date.

Comments:

Do most superintendents view the matching fund requirement as a serious obstacle to program development?

1. The matching funds provision of the Vocational Education Act of 1963 makes it possible for schools to finally provide an adequate program in vocational education.
2. Even though funds available under the Vocational Education Act of 1963 were, in most cases, used to reimburse program development at a fifty per cent level, local schools cannot normally provide the additional fifty per cent necessary to develop a program of vocational education which adequately meets their needs.
3. A reimbursement rate greater than fifty per cent should be strongly discouraged from the standpoint that it would tend to reduce local effort.
4. A fifty per cent reimbursement rate is still not sufficient to allow my district to provide a vocational education program of the scope and quality we would like to offer.
5. A reimbursement rate as high as fifty per cent has a tendency to reduce local autonomy.
6. A flat reimbursement rate for all phases of vocational education is unrealistic. Reimbursement rates should vary according to a district's ability to provide local funds.
7. Program development in vocational education will never be adequate until federal and/or state funds are provided on the basis of an outright grant to schools based on State Equalized Valuation.

8. Special millage or bond issue tax elections are justifiable means of securing matching funds to provide new or expanded programs of vocational education.
9. Program development in vocational education will never be adequate until federal and/or state funds are provided on the basis of an outright grant to schools based on some equitable method of allocation.
10. The requirements of the Vocational Education Act of 1963 for local schools to match federal funds at at least fifty per cent works a greater hardship on small school systems than on the large systems.

Comments:

Do superintendents feel more state financial aid should be provided to satisfy the matching fund requirement?

1. Additional state money should be made available to assist the local school district in procuring its fifty per cent matching share of the total program of vocational education.
2. Additional state money should not be made available to vocational education. Federal funds for this purpose are adequate and thereby release more state money for program development in "General" education.
3. State funds should only be provided when they assist all students. I would therefore be opposed to additional state funds for providing expanded programs of vocational education.
4. If additional state funds were provided, they should be available for use at the discretion of local school districts based upon greatest need and not earmarked for improving the vocational education program.
5. Additional state money is not necessary to assist schools in providing their share of the vocational education program.

6. State funds have historically been inadequate to assist expansion of vocational education to any degree. This situation should be corrected through the addition of a substantial amount of state money earmarked for the expansion of vocational education programs.
7. Education agencies receive an adequate amount of state financial assistance for vocational education.
8. There should be a substantial increase in state funds for all educational programs.
9. Unless a state income tax is instituted, there can never be sufficient state funds to meet the vocational education needs of my community.
10. Since realistic vocational education programs should be developed on the basis of state as well as local manpower needs, the state should assume greater financial responsibility in providing such programs.

Comments:

Are teacher certification requirements realistic in light of the new Act?

1. The provisions of the new Act make state teacher certification requirements for vocational education unrealistic.
2. Increased flexibility in curriculum development provided under the Vocational Education Act of 1963 should not be used as a rationale for reducing current vocational education teacher certification standards.
3. Many of the new courses now possible under the Vocational Education Act of 1963 will not be offered because of rigid vocational education teacher certification requirements.

4. I would never recommend that a course be offered in my district which could not be staffed with a teacher meeting all the requirements for vocational education teacher certification.
5. The only way for school districts to take full advantage of the Vocational Education Act of 1963 is for teacher certification requirements to be relaxed to such an extent that a non-certified person could be employed to teach in his or her area of speciality.
6. To my knowledge there has been no effort to date to attempt to relax teacher certification standards for vocational education.
7. A specially certified teacher should be employed only if he or she can meet state teacher vocational education certification requirements within a specified period of time.
8. It is unrealistic to withhold needed instruction by demanding that every vocational education teacher be certified or even certifiable if he or she possesses skills which no certified teacher possesses or if no certified teacher is available for employment.
9. I would never allow a non-certified teacher to teach a general academic course but due to the problems of unemployment, advanced technology and so forth, I would employ a non-certified vocational education teacher in my district if such an act were legal according to Michigan school laws.
10. I would never allow a non-certified teacher to teach either an academic course or a course in vocational education in my district even if such an act were legal in accordance with Michigan school laws.

Comments:

Do superintendents view vocational education as training for a single skill or a family of occupations?

1. The needs of students in today's labor market can best be met if students in vocational education are trained for a single skill rather than a "cluster" of "family" of occupations.
2. With the advanced technology in this country and the continued change in the employment picture, training for clusters or families of occupations rather than for a single skill is the most realistic approach.
3. Additional funds available under the Vocational Education Act of 1963 will allow school systems to provide training in families or clusters of occupations rather than in a single skill.
4. School districts generally do not have the funds, the student population or the teaching staff to provide training in families or clusters of occupations.
5. Vocational education in families or clusters of occupations can only be provided in any realistic manner in an area vocational education facility or a community college.
6. The need for vocational education in families or clusters of occupations and the difficulty of providing realistic vocational training at the secondary level are strong arguments for not providing vocational education until the post-high school level.
7. Vocational education should be provided in families or clusters of occupations at the secondary level so that high school graduates will be equally prepared to enter the labor market or pursue advanced training at the post-high school level.
8. Public schools can never offer realistic job training programs.
9. Industry and business and not the educational system should assume the responsibility for vocational training.
10. Realistic vocational education must be offered at the secondary level in order to assist all students to become productive members of society.

Comments:

Do superintendents feel the priorities established for 1964-65 best met the needs of their school in particular and the state in general?

1. The priorities established for the use of Vocational Education Act of 1963 funds for fiscal 1964-65 were realistic in light of the limited amount of money available.
2. The priorities established for the use of Vocational Education Act of 1963 funds for fiscal 1964-65 were unrealistic.
3. A great deal of emphasis and a high priority for funds should be assigned to the construction of area vocational-technical school facilities.
4. Due to the uniqueness of each local situation, no one purpose, in terms of priorities, should receive any more weight or a higher priority for Vocational Education Act of 1963 funds than another.
5. Reimbursement of instruction should receive the highest possible priority.
6. The Division of Vocational Education has the responsibility of establishing priorities on the allocation of funds to assure the best possible program on a state-wide basis with the amount of money available.
7. The purchase of equipment should have received the highest priority for funds for fiscal 1964-65.
8. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the larger school districts.
9. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 appeared too arbitrary and had no realistic purpose.
10. The priorities established for Vocational Education Act of 1963 funds during fiscal 1964-65 clearly favored the establishment of new programs or the expansion of old ones almost to the exclusion of maintaining currently operating programs of vocational education.

Comments:

APPENDIX C

ORIGINAL COVER LETTER

1405 F Spartan Village
East Lansing, Michigan
July 2, 1965

Dear Educator:

Since the passage of the Vocational Education Act of 1963, the vocational portion of our educational system has received considerably more emphasis than ever before. Because of this increased emphasis, the state level agencies responsible for administering Federal Acts must have some concept of the beliefs and needs of local administrators before they can develop realistic policies and procedures. As a result of the findings on the enclosed questionnaire, an attempt will be made to correlate what educational leaders in Michigan think about vocational education with certain suggestions for needed operational changes at the state level.

The questionnaire is composed of three parts. Part one is devoted to biographical data about the respondent and data pertaining to certain pertinent facts about his school system. The biographical data will hopefully help to identify any correlations between background and personal opinions and beliefs.

Part two is designed to obtain the respondent's personal beliefs about vocational education in general and about certain operational procedures of the Division of Vocational Education in particular.

Part three is devoted to factual questions pertaining to the Vocational Education Act of 1963. Your responses to the third part will assist in determining whether the Division of Vocational Education has adequately interpreted the provisions of the 1963 Vocational Education Act to administrators so that they have been able to take full advantage of all available funds. Although the third part appears to be a "test," it is a test of the adequacy of information provided and not of the respondent.

You will note an identification number in the upper right hand corner of the questionnaire. Its purpose is to identify experimental and control groups and not individuals. No name is required and no attempt will be made to identify the individual respondent. The code number will only be used to identify which sample strata, if any, need follow-up requests for responses.

I would greatly appreciate your taking the time to complete and return the questionnaire. Hopefully, the results of the study may one day have specific implications for your school system.

Thank you very much for your assistance.

Sincerely yours,


William F. Pierce

MICHIGAN
DEPARTMENT OF PUBLIC INSTRUCTION

LYNN M. BARTLETT, STATE SUPERINTENDENT

DIVISION OF VOCATIONAL EDUCATION
P. O. BOX 928, LANSING, MICHIGAN



EDGAR L. GRIM
DEPUTY SUPERINTENDENT
FOR INSTRUCTION

APPENDIX D

ROBERT M. WINGER
ASSISTANT SUPERINTENDENT
FOR VOCATIONAL EDUCATION

SECOND COVER LETTER

July 2, 1965

Dear Superintendent:

The enclosed questionnaire is the data-collecting instrument for a doctoral dissertation being conducted by Mr. William F. Pierce.

Although Mr. Pierce is a member of the State office staff, the study is an independent undertaking and is not being financed by the State Department of Education.

However, in reviewing the instrument and the purposes of the study, it is felt that the findings will be of significance to the State Department of Education. Since the results of the study could ultimately affect the operational procedures of vocational education in Michigan, we would appreciate it if you would complete and return the enclosed questionnaire.

Inasmuch as the study is not a part of the regular Departmental research program, my request is made as a result of a belief that educational research is one of the tools we, as educators, should support.

Sincerely yours,

Alexander J. Kloster
Acting Superintendent of Public Instruction

Enclosures

APPENDIX E

FIRST FOLLOW-UP LETTER

1405 F Spartan Village
East Lansing, Michigan
August 2, 1965

A short time ago you should have received a research questionnaire entitled Vocational Education Opinion Inventory of School Superintendents. As you may recall, the results of this study could ultimately affect the operational procedures of the Division of Vocational Education and, as such, may one day have specific implications for your school system.

If you have already returned the questionnaire, I would like to thank you for your invaluable assistance.

If, however, the normal busy schedule has prevented you from finding the time to respond, I am once again asking for your assistance. Although I have received as high as an eighty percent return in some strata, which is very gratifying, the returns from other strata are not yet sufficiently large enough to obtain an accurate measure of the opinions of Michigan superintendents. Consequently, to assure that the results of the study are as meaningful as possible, I should have a greater cross section of responses in your stratum. The receipt of your completed questionnaire would therefore be greatly appreciated.

Thank you for your assistance.

Sincerely yours,

William F. Pierce

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress.

2. The second part of the document is a letter from the Secretary of the Treasury to the President, dated January 10, 1862. It is a very important document, as it contains the Secretary's report to the President on the state of the Treasury.

3. The third part of the document is a letter from the Secretary of the Treasury to the Congress, dated January 10, 1862. It is a very important document, as it contains the Secretary's report to Congress on the state of the Treasury. The letter is very long and contains a great deal of information about the state of the Treasury and the various measures that have been taken to improve it.

4. The fourth part of the document is a letter from the Secretary of the Treasury to the Congress, dated January 10, 1862. It is a very important document, as it contains the Secretary's report to Congress on the state of the Treasury. The letter is very long and contains a great deal of information about the state of the Treasury and the various measures that have been taken to improve it.

5. The fifth part of the document is a letter from the Secretary of the Treasury to the Congress, dated January 10, 1862. It is a very important document, as it contains the Secretary's report to Congress on the state of the Treasury. The letter is very long and contains a great deal of information about the state of the Treasury and the various measures that have been taken to improve it.

APPENDIX F

FINAL FOLLOW-UP LETTER

607 Virginia Avenue
East Lansing, Michigan
October 4, 1965

Dear

In early July, copies of the attached materials were sent to you as one of a group of randomly selected superintendents.

The returns have been extremely gratifying but in certain strata I am in need of additional responses. Since the replies were anonymous I have no way of knowing which superintendents have responded. I am therefore resubmitting the original materials to everyone selected in some of the strata.

If you have returned your questionnaire, I would like to express my thanks for your assistance and ask that you ignore this request. If you did not have an opportunity to return the questionnaire, I would certainly appreciate it if you would fill out the enclosed copy and return it to me.

Sincerely yours,

William F. Pierce

APPENDIX G

PANEL OF JURORS - DIVISION OF VOCATIONAL EDUCATION

General Administration

Leon J. Alger
Glenn E. Smith

Agricultural Education

Charles L. Langdon
Elmer A. Lightfoot
Harry E. Nesman
Edwin St. John

Business Education

John C. Brickner
Richard Shupe
Lawrence T. Thomson

Homemaking Education

Marguerite Lofink
Barbara Gaylor
Thelma Graper
Rex Todd Withers

Trade and Industrial Education

John J. Harris
Lloyd V. Johnson
Earl W. Miller
Lottie Waterman

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