FACTORS ASSOCIATED WITH THE VOCATIONAL CHOICES OF HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE

> Thesis for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY William Merbert Knight 1958

This is to certify that the

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FACTORS ADDOCTATED WITH THE VOCATIONAL CHOICES OF HIGH SCHOOL STUDENTS OF VGCATIONAL AGRICULTURE

presented by

WILLIAH HERCHET KNIGHT

has been accepted towards fulfillment of the requirements for

Fh.D. degree in Vocational Education

R.M. Byrany Major professor

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## FACTORS ASSOCIATED WITH THE VOCATIONAL CHOICES OF HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE

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## WILLIAM HERBERT KNIGHT

## AN ABSTRACT

Submitted to the School for Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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Vocational educators have recognized a need for knowledge concerning factors associated with the vocational choices of students, and effective techniques of guidance. This study represents an attempt to provide some of this information as it relates to students of vocational agriculture.

<u>Purpose</u>.--To determine (1) the guidance practices used by teachers of vocational agriculture, (2) the vocational choices of students of vocational agriculture, and (3) the location and description of the factors associated with the vocational choices of these students.

<u>Method</u>.--The schools included in the teacher and student surveys were those in which each teacher had had a minimum tenure of four years. A representative sample of Michigan schools was selected for the study with consideration being given to the size of the school and its geographic location within the state. Forty-two teachers responded to the teacher survey.

Five-hundred seventeen freshman and 261 senior enrollees in these schools responded to the student survey.

<u>Findings and Interpretation</u>.--"Interest in agriculture" was indicated by teachers as being the most frequent basis by which they selected students. The continuance of students in subsequent courses was contingent upon passing grades, student attitudes of cooperation and interest, satisfactory farming programs, and the teacher's decision as to the desirability of continuance. No one factor received significantly more emphasis than any other by teachers.

Information concerning farming opportunities was presented to students by all teachers. All except one of the forty-two respondents presented information concerning opportunities in agricultural occupations other than farming. Sources used by teachers in presenting occupational information included field trips, audio-visual materials, resource persons, and commercial guidance service aids.

Twenty-nine percent of the parents of freshmen and 41 percent of the parents of seniors were full-time farmers. Forty-eight percent of the parents of freshmen were engaged in part-time farming. Forty-seven percent of the senior's parents were part-time farmers.

Half of the freshman and senior respondents aspired to an agricultural occupation. Approximately half of each class expected to enter agricultural occupations. However, less than 5 percent of the total sample aspired to part-time farming or to an occupation related to farming. Significantly, more of the students whose parents were full-time farmers desired and expected to farm.

Over 50 percent of the students indicated that their knowledge of occupational requirements and their personal vocational qualifications came from sources outside the school. School sources of help in developing vocational understandings were rated as somewhat more important in schools with guidance personnel than in schools without guidance personnel.

The development of needed vocational skills was indicated by more than 60 percent of the students as one contribution of vocational agriculture to their vocational preparation. Nineteen percent of the freshman enrollees felt that vocational agriculture would be of little or no value to them in their vocational planning while only 9 percent of the seniors responded in this manner.

The requirement that the student have the opportunity to carry on a farming program and develop a satisfactory farming program were not found to be associated with the choice of an agricultural occupation.

## FACTORS ASSOCIATED WITH THE

## VOCATIONAL CHOICES

# OF HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE

By

William Herbert Knight

#### A THESIS

Submitted to the School for Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Teacher Education

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## CHAPTER I

#### PURPOSES AND OBJECTIVES OF THE STUDY

#### INTRODUCTION

One of the important decisions that the individual makes in his lifetime relates to his choice of a vocation. The wisdom exercised by youth who may initiate the process of making this choice while yet in secondary school, may materially affect success attained in later life. The school, by virtue of provision for vocational education and guidance activities, has a stake in the vocational planning of its students. In this study attention has been given the identification and description of the processes by which choices are made and the association of these processes to selected guidance activities of teachers of vocational agriculture.

#### Background for the Study

Agricultural education is not new in the United States. Washington and Jefferson were among the early leaders who promoted the study of agriculture as a science. Franklin's concern with the need for agricultural education resulted in an agricultural teacher being associated with the University of Pennsylvania in 1790. Prior to 1917, however, most in-school agricultural education was of college grade.

In 1917 the Smith-Hughes Act was passed by Congress establishing Federal grants for the purpose of promoting vocational education in the states. The original legislation has been supplemented several times by additional acts. In a statement of the original act, one of its purposes was, "to train present and prospective farmers for proficiency in farming."<sup>1</sup> Under the stimulus of the Smith-Hughes and succeeding acts, vocational agricultural education spread rapidly throughout the United States and its possessions. Latest available figures (1956) indicate that there are 10,188 departments of vocational agriculture in the United States and 785,599 students enrolled in high school classes.<sup>2</sup>

#### Reason for the Study

Recent years have seen profound sociological and technological changes taking place in agriculture. Farms have been getting larger in size, fewer in number, and have an increasing amount of machinery. The capital requirements to achieve full ownership of a farm may range as high as \$50,000 or higher.<sup>3</sup> The high initial investment and the decreasing number of available farms have made it increasingly difficult for graduates of vocational agriculture to become established in farming.

Vocational educators have been aware of this situation. Their concern is registered in the large numbers of studies of graduates to

<sup>&</sup>lt;sup>1</sup>Federal Security Agency, <u>Administration</u> of <u>Vocational</u> <u>Education</u>, Vocational Education Bulletin No. 1 (Washington, D. C.: Government Printing Office, 1948), pp. 1-7.

<sup>&</sup>lt;sup>2</sup>Division of Vocational Education, <u>Digests of Annual Reports of State</u> <u>Boards of Vocational Education</u> (Washington, D. C.: U. S. Office of Education, 1956), pp. 7, 11.

<sup>&</sup>lt;sup>3</sup>Lloyd J. Phipps, <u>Your Opportunities in Vocational Agriculture</u> (Danville, Illinois: The Interstate Press, 1957), pp. 55-57.

determine their occupational choice, occupational placement, and success. Of 186 studies reported in the 1955-1956 <u>Summaries of</u> <u>Studies in Agricultural Education</u>,<sup>4</sup> 23 were specifically in this area. <u>The Agricultural Education Magazine</u>, the professional journal of agricultural education, in its last 30 issues (July 1955 to December 1957) has had 42 articles that are definitely characterized as dealing with the guidance area.

For the most part, studies in agricultural education, with implications for the guidance of farm youth, have been follow-ups of their placement and success. The occupations which farm youth enter are known, but there is a void in our knowledge of the factors associated with their vocational choices. Deyoe, in concluding his study<sup>5</sup> of Michigan youth enrolled in vocational agriculture, listed among the needs for further study "....factors associated with vocational choice...." and effective guidance techniques used with students of vocational agriculture. This study was one of the preliminary steps to over-all study of guidance as it related to vocational agriculture in Michigan.

Teachers of vocational agriculture are in unique positions to cooperate in vocational guidance activities. Their profession, per se, gives them an interest in the area. Characteristically they

<sup>&</sup>lt;sup>4</sup>Summaries of Studies in Agricultural Education, Supplement No. 10, Vocational Division, United States Department of Health, Education, and Welfare, Office of Education (Washington, D. C.: Government Printing Office, 1957)

<sup>&</sup>lt;sup>5</sup>G. P. Deyoe, <u>Young Men From Michigan Farms</u>, Department of Education, Michigan State College (Lansing: The State Board of Control for Education, 1939), pp. 15, 16.

work with their students for relatively long periods daily and throughout their high school careers. Moreover they have contacts with parents through home visitation. For these reasons teachers of vocational agriculture are in positions to have good understandings of the plans and goals of their students as well as parental aspirations for them. In order to more effectively cooperate in the vocational guidance and planning of their students, a knowledge of factors associated with the vocational choices of farm youth and those guidance practices most effective with them is in order.

In this study an attempt was made to locate and describe some of the methods associated with the vocational choices of high school students and association between selected guidance practices and vocational choice. What guidance practices were being used by teachers of vocational agriculture and with what effect? Was there an association between selection practices and a choice of an agricultural occupation? What sources of guidance did students recognize as being of importance as aids in their vocational planning? What were the vocational choices of the youth studied and what factors appeared to be associated with these choices? These were among questions for which answers were sought.

#### Need for the Study

Studies cited in the Review of Literature<sup>6</sup> show that there are less than 50 percent of the youth taking vocational agriculture in the

<sup>&</sup>lt;sup>6</sup>Cf. post, p.15 et seqq.

high schools of the nation who become established in farming. That vocational training in any area should not be considered training for a specific job is fairly well accepted. A statement from the National Manpower Council indicates that "one of the errors (that have been made in the past) is to conceive of vocational courses as a means of preparing students for specific jobs (ed.: farming, for example) rather than as providing them with a broad base for later training."<sup>7</sup> DeGraff and others<sup>8</sup> estimate there are as many as one-fourth of all occupations classified as being related to agriculture, and it is to this broad category of occupations that graduates may well look.

The importance of being able to aid students who have made or are in the process of making vocational choices within the broad field of agriculture may be seen in two statements from Bingham. He said.

We must learn to ascertain more precisely the distinctive marks of promise in agricultural pursuits so that potential talent or its lack may be appraised with a sureness no less warranted than that of the judges awarding blue ribbons to the best colts at the State Fair. .... There is a possibility that the human race can substantially improve the average competence of its farmers and conserve the productivity of their lands, not only through research and education in agricultural science, but also through providing adequate occupational guidance to farmers' sons as well as to others who are drawn toward life on the farm.<sup>9</sup>

<sup>7</sup>National Manpower Council, <u>A Policy for Skilled Manpower</u> (New York: Columbia University Press, 1934), p. 23.

<sup>8</sup>Herrell DeGraff, "Who Is The Farm Worker", <u>The County Agent</u>, <u>Vo-Ag</u> <u>Teacher</u>, Vol. 13, No. 9, September 1957, p. 16 "In Summing Up", <u>Editorial, The County Agent</u>, <u>Vo-Ag Teacher</u>, Vol. 14, No. 2, February 1958, p. 68.

<sup>9</sup>W. V. Bingham, "Who Should Farm", <u>The Land</u>, 12 (Winter, 1953-54), pp. 307-311, 397.

The effects of an unwise decision is pointed out by the National Manpower Council. It states, "When a person makes an educational or occupational decision without due consideration of his strengths and his opportunities, he wastes his potential abilities, and the community's manpower resources are correspondingly weakened."<sup>10</sup>

Without in any way depreciating the value of the citizenship activities and opportunities for developing leadership that are integral parts of vocational agriculture and its youth organization, the Future Farmers of America, the need for guidance both toward and away from agricultural pursuits is recognized.

The cost of vocational education should not be overlooked. Any type of vocational education requires specially trained instructors and unique provisions as to working conditions and facilities. Instruction in vocational agriculture is commonly offered over a four-year sequence. Little is known about the reasons why students select vocations in which they can utilize little or none of their specific vocational training. By knowing the factors associated with the vocational choices of students, it should be possible for educators to make a more profitable use of the students' time and the taxpayers' monies. This may be done by helping students to select courses of instruction and experiences that they will utilize in the vocation of their choice.

## Scope of the Study

The study was limited to Michigan high schools offering vocational agriculture. It was further delimited to responses from freshmen and seniors and their vocational agriculture instructors.

There were specific reasons for these delimitations. The latter two are less obvious than the first and deserve an explanation. Freshmen were studied since they, for the most part, have received no prior systematic exposure to vocational agriculture, or the guidance practices of the high school. It seemed to the writer that in order to effectively guide freshmen students, their level of aspiration and those factors associated with their vocational plans must be known. To a degree, the study of these same factors with seniors was considered an evaluation of the effectiveness of techniques employed in guiding students. It appeared as a means of assessing what was being done, and developing methods for future activities.

The study was limited to those schools whose instructors had taught four or more years in the school being polled. In these situations the instructors of vocational agriculture had the opportunity to develop techniques of instruction and understandings which teachers with less experience or tenure in the school may not have developed. These teachers were more familiar with other personnel and techniques employed in the guidance of the school youth.

## Some Basic Assumptions

Certain assumptions were considered basic to this study. They were:

1. Among functions of a teacher of vocational agriculture are

the selection of students to enroll in vocational agriculture, the presentation of occupational information, and guiding in its interpretation by individuals.

 High school freshmen and seniors are able to indicate their vocational choices with an acceptable degree of validity. Furthermore they are able to indicate factors that may be associated with their choices.

## Explanation of Terminology

<u>Vocational Choice</u> was used in this study as synonymous with occupational choice and may be defined as the process of making a decision by an individual as to his vocation or occupation.<sup>11</sup>

<u>Vocational Guidance</u> - "The process of assisting an individual to choose an occupation, prepare for it, enter upon and progress in it."

<u>Vocational Agriculture</u> - The teaching of agriculture of less than college grade which is done in high schools. In this study reference to only high school programs of agriculture and not agricultural education for out-of-school youth or adults was made.

<u>Occupational Information</u> - "An accurate, up-to-date treatment and interpretation of data important to the process of occupational

<sup>&</sup>lt;sup>11</sup>Donald Super, <u>The Psychology of Careers</u> (New York: Harper and Brothers, 1957), p. 184.

<sup>&</sup>lt;sup>12</sup>National Vocational Guidance Association. Principles and Practices of Vocational Guidance. Occupations, Vol. 15, 1937, pp. 772-778.

selection, preparation, placement, and adjustment."<sup>13</sup>

<u>Occupations Related to Farming</u> - Those occupations in which a knowledge of the farm and ability to perform farm skills are necessary to success. Examples are feed store operators, machinery sales and service, agricultural agent, etc. These occupations are also referred to as "agricultural occupations other than farming".

<u>Guidance Personnel</u> as used in this study referred to school counselors, full-time and/or part-time, and others with specific training for the guidance of youth.

<u>Agriculture</u> as used here was an all inclusive term including careers in farming, part-time farming, and occupations related to farming.

<u>Significance</u> was used only in its statistical sense. Items were considered statistically significant in this study if, when tested, they had a probability of five or less chances in one hundred of occuring differently in another sample.

<u>Aspirations</u> as used in the present study refers only to vocational aspirations, and includes responses secured from the student survey as to the type of work students would like most to do.

<u>Expectations</u> refers to vocational expectations in the present study. The type of work students indicated they <u>expected</u> to do are included under this term.

 <sup>&</sup>lt;sup>13</sup>Federal Security Agency, United States Office of Education, Division of Vocational Education, <u>Counselor Competencies in</u> <u>Occupational Information</u>, <u>Miscellaneous Publication 3314-3</u> (Washington, D. C.: Government Printing Office, 1949), p. 1

<u>Selection</u> - herein is considered as the process of advisement for enrollment.

<u>Prestige</u> is interpreted as the regard that people have for an occupation and those engaged in it.

## Limitations of the Study

This study was limited in that it was confined to a selected number of schools and students.

The study was confined to those aspects of the school program with which it was believed the respondents were sufficiently familiar to give valid responses.

The student data were subjective and valid only to the extent that personal biases were excluded from responses.

Due to varied backgrounds and levels of experience the respondents may have applied differing standards in their reactions to evaluative questions.

#### Procedure of the Study

The procedures used in this study developed as outcomes of two seminars in vocational education at Michigan State University in 1955 and 1956 and the guidance of an advisory committee.

After a study of the procedures and techniques of securing information used in related studies, a preliminary set of instruments for teachers and students was developed. These instruments were tried out with twelve different teachers of vocational agriculture in Michigan. In addition, the student questionnaire was tried out in a University guidance class conducted by Dr. Willa Norris. Both the teacher and student questionnaires in their original form consisted largely of open-ended questions. Responses secured from these pilot studies were organized and worded in a simple and uniform manner to form the checklists of the instruments included in the Appendix of this study. The author's guidance committee aided in this final formulation.

It was not felt necessary to determine the validity of the instruments since they were adapted for a study of students of vocational agriculture from other accepted studies of similar nature but representative of different populations.

Reliability, however, was determined by the test-retest method. Retesting was done after an interval of six weeks with a group of freshmen and senior students at the Williamston, Michigan, High School. Responses were secured from thirty-two students, half being freshmen and half seniors. A correlation of .83 was obtained between results of the testings.

The method and procedure of sampling was dictated by several concerns. First, the requirements outlined under "Scope and Delimitations" had to be met. This limited the sample to 118 schools located throughout the state.

Next, it was recognized that occupational opportunities varied throughout the state and with type of farming area. Since emphasis in the study was on occupational opportunities in

agriculture, it appeared logical to divide the state into agricultural regions. The crop reporting divisions used by the Michigan Department of Agriculture were modified as shown in Figure One to include relatively large and homogenous agricultural areas.

Finally, in recognition that school offerings may vary with size of school, the 118 schools were classified according to size.

The divisions found in the 1956-1957 directory issue of the Michigan High School Athletic Association<sup>14</sup> served as the basis for this classification. This classification places schools with over 900 students in the upper four grades in Class A, those with 375 to 899 in Class B, 175 to 374 in Class C, and less than 175 in Class D.

It was thought an adequate sample could be obtained by dividing the number of schools in each class by four. This gave a sample consisting of 54 schools, or slightly less than half of the population. This number represents roughly one-fifth of the total number of departments of vocational agriculture in the state.

The sample included 3 Class A schools, 19 Class B schools, 26 Class C, and 6 Class D. These schools ranged in enrollment in vocational agriculture from 89 to 21, with an average of 53. Range in F.F.A. membership was from 77 to 16, with an average enrollment of 50. Six of the schools had two teachers of vocational agriculture, the remainder had one.

<sup>&</sup>lt;sup>14</sup>Michigan High School Athletic Association <u>Bulletin</u>. Vol. XXXIII No. 4-S, November 1956.



FIGURE I

Divisions of the State of Michigan into districts for sampling purposes.

The following is a list of the schools by district: District 1, Felch; District 2, Petoskey, Manton\*; District 3, Lowell, Lawrence, Niles, Scottville\*, Shelby, Grant, Caledonia, Buchanan, Mattawan, Zeeland, Wayland; District 4, Dansville, Delton, Edmore, Stockbridge, Union City, Weidman, Mt. Pleasant, Owosso, Pittsford, Portland, Reading, St. Louis, Grass Lake, Hastings, Hillsdale, Vicksburg, Colon, Athens, Bellevue, Charlotte, Alma, Leslie; District 5, Hartland, Holly, Milford, Romeo, South Lyon, Tecumseh\*, Clio, Fowlerville, Carleton A. C., Chelsea, Britton; District 6, Bay City, Caro, Pinconning, St. Charles, Harbon Beach\*, Elkton, Hemlock.

<sup>\*</sup>Indicates schools cooperating in the try-out surveys. In addition to the four starred and for try-out only, responses were secured from seven other schools.

#### CHAPTER II

#### REVIEW OF LITERATURE AND RELATED STUDIES

It will be the purpose of this chapter to review, by way of background for the present study, some of the theories of vocational choice and findings on vocational choice for both the general school population and students of vocational agriculture. The relation as seen in earlier studies of guidance services to the general school program and specifically to the program of vocational agriculture will be presented. The interests and concerns of youth with the subject of vocations will be shown by several studies. And finally specific findings in the area of vocational agriculture having implications for guidance will be cited.

## Theories of Vocational Choice

Man's thoughts have often dwelt on the subject of vocational choice. One of the earlier statements having meaning pertinent to this subject is that of Socrates, who is reputed to have said, "Know thyself". His pupil, Plato, writing in his <u>Republic</u> is credited with some very definitive statements on selection and placement of individuals in various occupations.<sup>1</sup> Seneca, the Roman philosopher, writing in the first century A. D.,

<sup>&</sup>lt;sup>1</sup> Francis M. Cornford, <u>A Translation of the Republic of Plato</u> (New York: The Oxford University Press, 1950), pp. 53-59, 127-129.

took a less autocratic view than that of Plato. He stated, "Shun no toil to make yourself remarkable by some talent or other. Yet do not devote yourself to one branch exclusively. Strive to get clear notions about all."<sup>2</sup> That man would, however, have a choice as to his vocation was only imperfectly recognized or allowed until comparatively recent times.

From the beginning of modern vocational guidance, theories of vocational choice have been implied. Ginzberg and his co-workers<sup>3</sup> found that vocational choice is influenced by a number of factors, no single one alone affecting vocational choice. He listed environmental factors, influence of the educational process, emotional needs and desires, and the values held by the individual. He divided the process of occupational decision-making into three periods: the period of fantasy choice, the period of the tentative choice, and the period of the realistic choice. These periods roughly correspond with the ages of pre-adolescence, adolescence, and early adulthood. Other researchers, including Strong<sup>4</sup>, MacKaye<sup>5</sup>, and Hartson<sup>6</sup>, have found that vocational choice

<sup>&</sup>lt;sup>2</sup>Ralph Emerson Browns, et al., <u>The New Dictionary of Thoughts</u> (New York: Hanover House, 1957), p. 337.

<sup>&</sup>lt;sup>3</sup>Eli Ginzberg, et al., <u>Occupational Choice</u>, <u>An Approach to a General</u> <u>Theory</u> (New York: Columbia University Press, 1951), pp. 56, 60, 271.

<sup>&</sup>lt;sup>4</sup>E. K. Strong, <u>Change of Interest with Age</u> (Stanford, California: Stanford University Presg, 1931).

<sup>&</sup>lt;sup>5</sup>D. L. MacKaye, "The Fixation of Vocational Interest", <u>American</u> Journal of Sociology, XXXIII (1927), pp. 353-370.

<sup>&</sup>lt;sup>6</sup>L. D. Hartson, "Vocational Choices Before and After College",

tends to crystalize and become stabilized in late adolescence or early adulthood.

Meadow<sup>7</sup> cited Small's findings which indicate that there is no linear relationship between age and changes toward reality of choice. He suggested a holistic approach with the inclusion of pyschoanalytic findings to develop a theory of vocational choice. His approach was determined after an examination of the economic approach advocated by Clark<sup>8</sup> which indicates the law of supply and demand is the determinant of where a person will work, the sociological approach of Caplow<sup>9</sup> in which parental and educational forces and social mobility and class are influential, and Ginzberg's vocational guidance approach.

Super<sup>10</sup> and Kaplan<sup>11</sup> suggested vocational choice as an outcome of individual needs and the way the individual perceives himself in relation to his environment. The latter suggested that vocational choice as made in high school or college is compounded in varying degrees of: the desire for prestige, security, or

Occupations, XVI (1937), pp. 138-142.

<sup>7</sup>Lloyd Meadow, "Toward a Theory of Vocational Choice", <u>Journal of</u> <u>Counseling Psychology</u>, Vol. 2, No. 2, Summer, 1955).

<sup>8</sup>F. E. Clark, <u>Economic</u> <u>Theory and Correct Occupational</u> <u>Distribution</u>, (New York: Bureau of Publications, Teachers College, Columbia University, 1931.)

<sup>9</sup>T. Caplow, <u>The Sociology of Work</u>, (Minneapolis, Minnesota: The University of Minnesota Press, 1954.)

<sup>10</sup>Super, <u>op. cit.</u>, p. 362

<sup>11</sup>O. J. Kaplan, Ed., <u>Encyclopedia of Vocational Guidance</u>, Philosophical Library, Vol. I (1948), pp. 621-623, 626. affluence; family influence; romantic conceptions of actual working conditions in a specific job; frequently inaccurate self-appraisal; and doubtfully accurate estimates of the needs of the labor market.

One of the most recent theories of vocational choice is that of Robert Hoppock.<sup>12</sup> Rather than being a totally new concept, it appears to be a synthesis of older theories. It holds occupational choice to be based on needs. These needs may be conscious or "only vaguely felt". Occupational choice has its beginning in a recognition of need being met by occupation. It changes with change in needs. The role of vocational guidance in this theory is one which helps the individual to understand his needs and the probability of satisfying them through various occupations.

What should be the basis for making a vocational choice? The answer does not appear to lend itself to simplicity. Super pointed out,

It is not enough to know one's aptitudes, abilities, and interests; these must be related to conditions in the outside world, to occupational trends and requirements which are likely to affect one's ability to make use of his aptitudes and to express his interests.<sup>13</sup>

He did, however, state that interest seems to lead to greater job satisfaction than when a choice is directed by some extraneous reason.<sup>14</sup> The use of measured interest as a criterion of

13 Donald E. Super, The Dynamics of Vocational Adjustment (New York: Harper and Brothers, 1942), p. 159.

<sup>14</sup><u>Ibid</u>., p. 151

<sup>&</sup>lt;sup>12</sup>Robert Hoppock, <u>Occupational Information</u> (New York: McGraw-Hill Book Company, 1957), pp. 74-85.

appropriate vocational choice is complicated, however, by the difficulty of defining interest and of establishing criteria of the valid existence of interest patterns.<sup>15</sup>

Interest apparently need not be an essential part of vocational choice in all cases. Darley and Hagenah<sup>16</sup> did not feel that all people find work an end in itself. Such persons may not need to be "interested in" their job in order to find it satisfying. They find satisfaction for their "real interests" in their chosen avocations.

Hahn and MacLean<sup>17</sup> emphasized attitudes and interests as being important concomitants of appropriate educational and vocational choices. Related to attitudes are values which Arsenian<sup>18</sup> found an important factor in vocational interest and choice.

Extraneous factors have been found important to vocational choice and job satisfaction in some industrial research.

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17 Milton E. Hahn and Malcolm S. MacLean, <u>General Clinical Counseling</u> (New York: McGraw-Hill Book Company, 1950), pp. 85-87.

<sup>&</sup>lt;sup>15</sup>Kaplan, loc. cit.

<sup>&</sup>lt;sup>16</sup>John G. Darley and Theda Hagenah, <u>Vocational Interest Measurement</u> (Minneapolis, Minnesota: The University of Minnesota Press, 1955), pp. 10-13.

<sup>&</sup>lt;sup>18</sup>Seth Arsenian, "The Relation of Evaluative Attitudes to Vocational Interest and Social Adjustment", <u>Journal of Social Psychology</u>, 17 (February, 1943), pp. 17-24.

Roethlisberger and Dickson<sup>19</sup> found job success and satisfaction in some instances are related to the social status that the worker perceives he has in the eyes of his fellows. Darley and Hagenah<sup>20</sup> took a similar position implied in Roethlisberger and Dickson's findings, namely, that occupational choice "is part of the individual's striving for an adequate life adjustment...."

In sum, no single factor or group of factors alone are indicated as being adequate bases for making a vocational choice. Findings indicate that both the individual's inherent and acquired characteristics, his self-concept, and external conditions are all necessary in developing an appropriate individual vocational choice.<sup>21</sup>

# Vocational Choice and School Youth

Is the school a factor to be considered in studying the vocational choices and guidance of youth? Ginzberg<sup>22</sup> pointed out that because of the need for selecting a high school curriculum the thirteen year old actually is determining the direction his life will take vocationally. He emphasized that the family is unprepared to give adequate guidance, and indicated that the school

<sup>22</sup>Ginzberg, <u>Op.</u> <u>Cit.</u>, p. 238.

<sup>&</sup>lt;sup>19</sup>F. J. Roethlisberger and William J. Dickson, <u>Management and the Worker</u> (Cambridge, Massachusetts: Harvard University Press, 1943), Chapters XXIV-XXVI.

<sup>&</sup>lt;sup>20</sup>Ibid., p. 190.

<sup>&</sup>lt;sup>21</sup>Fred M. Fowler, <u>Selection of Students for Vocational Training</u>, Vocational Division, Federal Security Agency, United States Office of Education, (Washington, D. C.: Government Printing Office, 1945).
must assume the major responsibility for these choices. He went on to state, "The major challenge to guidance is to help the individual to make a choice commensurate with his intellectual and emotional development.<sup>23</sup>

Organized guidance activities pointed toward vocational choice and planning prior to course selection are suggested in a brochure published under the auspices of the Ohio State Department of Education.<sup>24</sup> These activities prepare the way for wise course selection, this source states.

Vocational educators as well as guidance personnel are aware of youth's needs for guidance. Byram and Wenrich, leaders in vocational education in Michigan, recognized guidance as being the "keystone" of the school program.<sup>25</sup> They stated that while vocational education and vocational guidance are not synonymous, they are very closely related and inseparable parts of a comprehensive secondary school program.<sup>26</sup> Struck<sup>27</sup> indicated that sociological, technological, and economic factors combine to make vocational guidance an essential service to vocational education.

<sup>26</sup><u>Ibid.</u>, p. 278.

<sup>27</sup>Theodore F. Struck, <u>Vocational Education for a Changing World</u> (New York: John Wiley and Sons, Inc., 1953), p. 312.

<sup>&</sup>lt;sup>23</sup>Ibid., p. 247.

<sup>&</sup>lt;sup>24</sup>Division of Vocational Education, <u>Course Selection and Career</u> <u>Planning</u> (Columbus: Ohio State Department of Education, January, 1955), p. 2.

<sup>&</sup>lt;sup>25</sup>Harold M. Byram and Ralph C. Wenrich, <u>Vocational Education and</u> <u>Practical Arts in the Community School (New York: The MacMillan</u> <u>Company, 1956), p. 277 (Quoted from the Education Policies</u> <u>Commission, National Education Association, Education for All</u> <u>American Youth</u>)

Students themselves are concerned with vocational guidance and choices. Of a number of studies which are indicative of this concern, one will be taken as representative of the findings of the group. Doane<sup>28</sup>, in a study of over two thousand high school youth found that sixty percent expressed interest in taking courses dealing with vocational choice and placement. "Deciding what kind of work to do when you finish school" was ranked second to "how to find a job". It was found that as their ages increased, boys became increasingly concerned with securing training that would fit them for employment when they finished school.

Their concern appears to be warranted in view of research findings on the lack of appropriateness of vocational choices of youth. Super<sup>29</sup> called attention to the fact that those who have studied the vocational choices of youth are impressed by the "spuriousness and superficiality of their preferences".

In this connection several research findings on the lack of realism in the vocational choices of youth were representative of the majority. In a study<sup>30</sup> of over seven thousand fifteen-year-old pupils of Erie County, New York, (including Buffalo) schools, 43.3 percent of the boys and 38.7 percent of the girls said they planned to enter professional, managerial,

<sup>&</sup>lt;sup>28</sup>Donald C. Doane, "The Needs of Youth", <u>Contributions to Education</u>, <u>No. 848</u> (New York: Bureau of Publications, Teachers College, Columbia University, 1942).

<sup>&</sup>lt;sup>29</sup><u>Op. Cit.</u>, pp. 150-151

<sup>&</sup>lt;sup>30</sup>Division of Research, Erie County Needs More Vocational Education (New York: The University of the State of New York, 1954), pp. 19-22.

or semi-professional occupations. Only 19.4 percent of the male employees and 18.7 percent of the female at the time of the study were engaged in occupations in these areas.

In a study of 6,789 high school youth and their attitudes toward work and working, it was found that a large percentage had unrealistic educational and vocational plans. The respondents were allowed to place their occupational choices, in this study, in two categories: (1) those occupations they hoped to enter, and (2) those which they expected to enter. Even in the "expected" category of occupations it was found that the choices were unrealistic and those of many students would undergo drastic change when they became regular workers in the labor force. Interestingly enough, the study found that the proportion of former high school students engaged in farming was about the same percentage of the boys who indicated they plan to enter that occupation. Conclusions from the study indicate that the youth surveyed are more practical and level-headed than is commonly believed, and that they expect rewards to come from effort and group loyalty. The youth who responded to this study possibly place a higher premium on security than their predecessors did in the past.

Other findings<sup>32</sup> of the Social Research study emphasize the importance accorded the prestige ranking of an occupation.

<sup>&</sup>lt;sup>31</sup>Social Research Service, Youth and the World of Work (East Lansing, Michigan: Michigan State College, September, 1949), pp. 18 et segg.
<sup>32</sup>Ibid., p. 73.

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In agreement with the findings of Roethlisberger and Dickson<sup>33</sup> are the findings that the youth surveyed indicate job satisfaction or dissatisfaction may depend partially on the prestige level the occupation holds in the eyes of their peers.

A number of other studies with similar findings might be reported which would show that not only do high school youth, but even college students, have unrealistic vocational choices. Bennett<sup>34</sup>, in her book, reported Sparling's study which shows of 888 college students, 70 percent were trying to gain entrance into three of the most overcrowded occupations in the United States, and 95 percent were attempting to prepare for entrance into four of the most crowded occupations in metropolitan areas. She reports that more recent studies show only slightly more realism. One study having dissident findings is mentioned. Stubbins found, as reported by Thorne<sup>35</sup>, that 61 percent of their sample of youth had made appropriate vocational choices. It must be recognized, however, in this minority report, that 39 percent with inappropriate choices constitutes a rather large percentage.

Another finding that appears compatible with the theories of vocational choice is that the choices of youth are subject to

<sup>33</sup>Roethlisberger and Dickson, <u>loc.</u> <u>cit.</u>

<sup>34</sup> M. E. Bennett, <u>College and Life</u> (New York: McGraw-Hill Book Company, 1952), pp. 345-346.

<sup>35</sup> F. C. Thorne, "Principles of Directive Counseling and Psychotherapy", The American Psychologist, Vol. III (1948), pp. 160-165.

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considerable change. A study<sup>36</sup> reported in the <u>American Personnel</u> and <u>Guidance Association Journal</u> found that two-thirds or 347 of the high school youth studied changed their vocational choice at least once during high school. About one-third, however, held the same choice throughout high school. Sixty-six and nine-tenths percent of those who had a consistent choice throughout high school entered the occupation of this choice. Those having consistent choices in their junior and senior years entered the occupation of that choice in 41.7 percent of the cases.

Anderson<sup>37</sup> reported that the occupational interests of high school students electing farming are quite stable as compared with those who selected occupations other than farming.

## Findings With Specific Application to Vocational Agriculture

There are few studies of the vocational choices of high school students of vocational agriculture. One study<sup>38</sup>, made a decade ago, has been cited. The author has not found any recent study of vocational choice by students of vocational agriculture in relation to the availability of guidance services. There are, however, numerous follow-up studies of graduates and representive findings are presented.

38<sub>Ibid.</sub>

 <sup>&</sup>lt;sup>36</sup> "Variability of Vocational Choices of High School Students",
 (Washington, D. C.: <u>The American Personnel and Guidance Journal</u>, November, 1955), p. 142.

<sup>&</sup>lt;sup>37</sup>C. S. Anderson, "Occupational Interests of Farm Boys and Their Significance in Guidance", <u>The Agricultural Education Magazine</u>, Vol. 20 (1947), pp. 107, 109.

In a digest of data<sup>39</sup> from the <u>Summaries of Studies in</u> <u>Agricultural Education, Supplements 3 to 10</u>, 1950-1957, of 122,484 former students included in these studies, there was a range in percentages of those in farming from 5.0 to 74.5 percent. The averages of all studies showed 28.2 percent in farming, 11.9 percent in the Armed Forces, 8.9 percent in related occupations, and 7.1 percent in college.

The most recent study available to the author is one by Rougeau<sup>40</sup>, of Missouri. It is a ten-year study of former students of vocational agriculture in Missouri and was completed August, 1957. This study indicates that 32.4 percent of graduates with known occupations are in farming, 6.6 percent are in occupations related to farming, 48.1 percent are in occupations not related to farming, and 12.9 percent are attending college. These findings are not strikingly different from the data of Hamlin and Ekstrom.<sup>41</sup>

<sup>39</sup> Date from <u>Supplements 3 to 8</u> summarized by H. M. Hamlin, University of Illinois. Data from <u>Supplements 9 and 10</u> summarized by
G. F. Ekstrom, University of Missouri. Studies included in these summaries are: 1072, 1094, 1139, 1167, 1176, 1189, 1190, 1205, 1307, 1389, 1402, 1409, 1421, 1497, 1561, 1588, 1675, 1690, 1699, 1758, 1787, 1814, 1846, 1872, 1953, 1964 (two studies), 1966, 1970, 2009, 2014, 2070, 2105, 2107, 2132, 2138, 2140, 2235, 2256, 2272, 2314, 2341, 2369, 2403, 2407, 2424.

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Amos B. Rougeau, "A Ten-Year Study of Former Students of Vocational Agriculture in Six Reorganized School Districts in Missouri" (Unpublished doctoral dissertation, The University of Missouri, Columbia, Missouri, August, 1957), Table XLV, Abstract.

<sup>41</sup>Hamlin and Ekstrom, <u>loc</u> cit.

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Bender<sup>42</sup> reported that in the second year out of school, there would be a lesser percentage of young men engaged in agricultural occupations than in the first year. Fraker<sup>43</sup> found that former students who were self-employed in farming had had more educational experience in young farmer, adult farmer, and veterans institutional on-farm training. He reported that the number of years enrolled in vocational agriculture did not seem to be a major factor in the choice of an occupation. Zahn<sup>44</sup>, Lamar<sup>45</sup>, and Ketcham<sup>46</sup> reported an increased percentage engaged in farming or related occupations for those who had completed four years of vocational agriculture over those who dropped out of school or did not complete four years of vocational agriculture.

Bjoraker<sup>47</sup> found no significant association at the five percent level between mental ability, size of family, and level

- <sup>42</sup>Ralph E. Bender, "Vocational Status of Students in Vocational Agriculture Graduating in 1953 and 1954" (Unpublished non-thesis study, Ohio State University, Columbus, 1956), p. 14.
- <sup>43</sup>John W. Fraker, "A Follow-up Study of Former Students of Vocational Agriculture in Kenton High School, 1942-1952" (Unpublished Master's thesis, Ohio State University, Columbus, 1954), p. 79.
- <sup>44</sup>Edward B. Zahn, "A Study of the Occupational Distribution of the Former Vocational Agriculture Students of the Iola, Kansas, High School" (Unpublished research problem, Oklahoma A and M College, Stillwater, 1953), p. 63.
- <sup>45</sup>Carl F. Lamar, "A Ten-Year Study of Former Students of Vocational Agriculture in Kentucky, 1940-1950" (Unpublished non-thesis study, The University of Kentucky, Lexington, 1954), p. 68.
- <sup>46</sup>Harry Mack Ketcham, "A Study of the Education and Occupations of Former Vocational Agricultural Students in the Greenville Central Rural School, 1932-1950" (Unpublished Master's thesis, Cornell University, Ithaca, 1951), p. 57.
- <sup>47</sup>Walter T. Bjoraker, "A Study of Upper Classmen in Vocational

of formal education attained by the parents, and farm ownership by the parents and the son's level of desire to remain on the farm. He concluded that, in general, the boy's total attitude toward farming was probably more important in relation to his desire to remain on the farm than most of the other personal, farm, and family factors. In a study somewhat parallel to that of Bjoraker's, Ahalt and Murray<sup>48</sup> found that, of 185 young men who became farmers, 37 percent indicated a "liking for farming" as being most influential in their decision, 16 percent indicated family influences other than bad health or death, 15 percent the opportunity to get a farm, and 15 percent the freedom and independence afforded by farming.

Devoe<sup>49</sup> in his study of Michigan farm youth, found associated with the likelihood of farming such factors as number of years of vocational agriculture taken by the student, the quality of the home farm, recency of leaving high school, and the degree of participation in the work of the home farm. Town-reared young men who enrolled in vocational agriculture engaged in farming in small numbers. Individuals engaged in occupations related to farming were found to have graduated from high school and "showed evidences" of leadership in larger

Agriculture, to Identify Certain Factors Associated with the Level of Desire to Remain on the Farm" (Unpublished doctoral dissertation, The University of Minnesota, Minneapolis, 1951), p. 181.

<sup>48</sup>Arthur M. Ahalt and Ray A. Murray, <u>How Young Farmers Become</u>
 <u>Established</u> (College Park, Maryland: The University of Maryland
 <u>Experiment Station</u>, 1956), p. 17.

<sup>49</sup>Deyoe, <u>op. cit.</u>, pp. 9-12.

percentages than those who entered farming or non-farm occupations. Deyoe associates interest and initiative with the opportunity to farm.

Deyoe in his study hypothesized that an actuarial approach might be taken to the likelihood of a youth's engaging in farming. He was careful to point out that this was not the equivalent of a cause and effect relationship.

Selective service has had an effect on the plans of some high school graduates. Duda<sup>50</sup> found 67.7 percent expected their plans to change because of military obligations.

Some findings appear to indicate that there is a greater need for cooperation and understanding between teachers of vocational agriculture and guidance workers. Mostowski<sup>51</sup> in his study of eighty schools, found only half of the agricultural teachers were satisfied with the guidance program, and 25 percent of the agriculture teachers considered their department a "dumping ground" for poor students. Clear<sup>52</sup> noted that students had received little assistance in the selection of subjects and that too few participated in the co-curricular activities offered by the school.

<sup>51</sup>John J. Mostowski, "The Guidance of Students in High School with Emphasis on Vocational Agriculture" (Unpublished Master's thesis, The University of Maryland, College Park, 1956), p. 59.

<sup>52</sup>Charles Edward Clear, "A Study of the Guidance Needs of Vocational Agriculture in Southwest Virginia" (Unpublished Master's thesis, The Virginia Polytechnic Institute, Blacksburg, 1951), p. 96.

<sup>&</sup>lt;sup>50</sup>Charles J. Duda, "The Effects of Selective Service on Students of Vocational Agriculture in Becoming Established in Farming" (Unpublished Master's thesis, The University of Nebraska, Lincoln, 1953), p. 69.

One should not infer from these studies that guidance personnel are not doing their jobs. Many of the schools offering vocational agriculture do not have trained counselors. Byram and Nelson<sup>53</sup> noted that many of the activities indicated as being important guidance functions of teachers are not being implemented by many teachers of vocational agriculture. In a separate study<sup>54</sup>, Nelson found greater participation in guidance activities where there was a trained counselor who could provide time and leadership to teachers. That teachers of vocational agriculture are aware of their need of assistance and lack of skill for many guidance activities was shown by Nelson.

The studies cited present some rather cogent arguments for more guidance in vocational agriculture. A number of practical and specific recommendations have come from these studies, based on the findings. Included among these is the recommendations that more occupational information be available and that it include farm as well as non-farm vocational opportunities.<sup>55</sup> Buie<sup>56</sup>, after

<sup>56</sup>Tollie R. Buie, "Critical Factors Involved in the Evaluation and

<sup>&</sup>lt;sup>53</sup>Harold M. Byram and Kenneth G. Nelson, "Guidance and Placement in Agricultural Education", <u>The Agricultural Education Magazine</u>, Vol. 24, No. 2 (August, 1952), pp. 33-35, 43.

<sup>&</sup>lt;sup>54</sup>Kenneth G. Nelson, <u>Guidance Handbook for Michigan Teachers of</u> <u>Vocational Agriculture</u> (East Lansing, Michigan: The Michigan State College Press, 1950), pp. 3, 4.

<sup>&</sup>lt;sup>55</sup>Charles M. Gaffney, "The Farm Background, Course of Study Pursued, and Occupations of Graduates of the New York State Institute of Agriculture and Home Economics" (Master's problem, Cornell University, Ithaca, 1950), p. 50; and Allen R. Shotwell, "The Occupational Status of Former Pupils of The Union Springs Central Rural School Areas as Related to Occupational Opportunities of the Area" (Unpublished Master's thesis, Cornell University, Ithaca, 1954), p. 63.

recognizing the value of occupational information, pointed out the importance of up-to-date, reliable occupational information and the value of visual aids in color. Worthington<sup>57</sup> among others developed a method of estimating the number of farming opportunities for full-time and part-time operators. Korpi<sup>58</sup> found that the freshman year was one in which a broad orientation program became critical to the student's adjustment.

Studies of the process of vocational choice revealed it to be complex and developmental in nature. Youth did not approach the matter with a high degree of realism. Studies by vocational educators are not in complete agreement as to factors contributing to a choice of and establishment in agricultural occupations, but interest and opportunity appeared associated in most studies with entrance into farming. The studies cited provide a basis for an understanding of some of the work that has been done in the area of vocational choice and in other phases of vocational guidance which have implications and applications for succeeding chapters in this study.

Use of Occupational Information in Agriculture in the North Central Region" (Unpublished doctoral dissertation, Michigan State College, East Lansing, 1953), p. 188.

<sup>57</sup> John E. Worthington, "Determining the Number of New Opportunities for Youth to Enter Farming in Each of Ohio's Counties" (Unpublished non-thesis study, The Ohio State University, Columbus, 1956), p. 52.

<sup>58</sup>Milton L. Korpi, "A Study of High School Drop-Outs of Rural Children in the Belle Plaine High School, Belle Plaine, Minnesota, 1936-1950" (Unpublished Master's problem, The University of Minnesota, Minneapolis, 1952), p. 56.

### CHAPTER III

SCHOOLS AND SCHOOL PROGRAMS THAT WERE STUDIED

The purpose of this chapter will be to describe selected features of the program of vocational agriculture and of the guidance services in schools responding to the survey. No further description will be attempted here of those characteristics of the sample included in the section on Scope and Delimitations or Procedures of the Study.

Responses were secured from forty-two of the fifty-four schools contacted. Schools responding were found to be well distributed throughout the divisions set up in the sampling procedure with the exception that no response was secured from the division constituting the Upper Peninsula of Michigan.

One of the moot questions facing educators today is the basis on which students should be admitted to specific courses. Teachers who responded to this study were asked to report the basis on which students were admitted to the first course in vocational agriculture. From these responses the eight schools in which 50 percent or more students reported agriculture as the work they would like most to do were singled out for special attention. Reporting of the eight schools separately from the forty-two of which they were a part will be followed throughout this chapter in indicating the results of the teacher survey.\* Table I shows the

<sup>\*</sup>In the tables included in this chapter these schools will be indicated as "Schools receiving special attention".

results for the forty-two schools and the eight schools singled out for special attention. It may be quite readily seen that the two categories of schools were quite similar in respect to the selection of students. "Interest in agriculture" followed by the 'bpportunity for carrying on a farming program" were the two most common requirements.

### TABLE I

### BASIS ON WHICH STUDENTS WERE ADMITTED TO FIRST COURSES IN VOCATIONAL AGRICULTURE

	A11 S	Schools	Schools Special	Receiving Attention
	Number	Percent	Number	Percen <b>t</b>
Interest in agriculture	. 36	85.7	7	87.5
Opportunity for carrying on a				
farming program	. 23	54.8	6	75.0
Willingness to join the F.F.A	. 6	14.3	2	<b>25.0</b>
Student has a farming background	. 7	16.7	1	12.5
No restrictions for first year	. 6	14.3	2	25.0
Other	5	11.9	0	0
Number of teachers that responded .	42		8	

Teachers were asked the basis on which students were allowed to enroll in subsequent courses. Table II shows this information. The students' attitude as to interest and cooperation was the consideration receiving most attention in the all-schools category. Here, again, there was seen similarity between the bases reported by the two categories of schools.

### TABLE II

### BASIS ON WHICH STUDENTS WERE ALLOWED TO ENROLL IN SUBSEQUENT COURSES IN VOCATIONAL AGRICULTURE

	All So Number	chools Percent	School: Specia Number	s Receiving l Attention Percent
Passing grades	. 18	42.9	4	50.0
Attitude of cooperation and interest .	28	66.7	5	62.5
Teachers' decision <sup>5</sup> as to desira- bility of continuing	. 14	33.3	1	12.5
Development of a satisfactory farm- ing program	. 22	52.4	5	62.5
Other	. 1	2.4	0	0
Number of teachers that responded	42		8	

Attention of this study was next focused on the methods by which students were made acquainted with the opportunities in farming, and the time and duration of such instruction. This was most commonly done through classroom instruction as seen in Table III. Farm visitation, it was indicated, was one of the methods used least.

### TABLE III

### METHODS BY WHICH STUDENTS WERE MADE ACQUAINTED WITH THE OPPORTUNITIES IN FARMING

	All Numbe	Schools r Percent	School Specia Number	s Receiving 1 Attention Percent
Classroom instruction and discussion .	. 41	97.6	8	100.0
Field trips and resource persons	. 33	78.6	6	75.0
Instructional aids, bulletins, movies, etc	. 37	88.1	8	100.0
Farm visitation	. 28	66.7	5	62.5
Other (summer camping trips, etc.)	. 4	9.5	2	25.0
Number of teachers that responded	. 42		8	

It will be recalled that Korpi's study, reported in the Review of Literature<sup>1</sup>, pointed out crucial periods for the guidance of enrollees in vocational agriculture. Table IV shows the time at which students were acquainted with opportunities in farming. Not all teachers included in the study responded to this question. It was thought that this may have been due to the placement of the question as a sub-head under the main question. However, teachers in the pilot studies did not fail to complete this section. From those who responded it would appear that the first and fourth years were the times at which students were commonly acquainted with opportunities in farming. The lower section of Table IV indicates that, for the most part, this was a continuous process within the year in which such instruction was offered.

### TABLE IV

### TIME AND DURATION OF METHOD BY WHICH STUDENTS WERE MADE ACQUAINTED WITH THE OPPORTUNITIES IN FARMING

			Time	
	A11	Schools	Schools Special	Receiving Attention
First year		4		0
First two years		1		1
First and fourth years		7		1
Number of teachers that responded		12		2
		Dι	ration	
	<b>A</b> 11	Du Schools	Schools Special	Receiving Attention
Continuously	A11	Du Schools 38	ration Schools Special	Receiving Attention 8
Continuously One week	<b>A</b> 11	Du Schools 38 2	ration Schools Special	Receiving Attention 8 0
Continuously One week Other	<b>A</b> 11	Du Schools 38 2 2 2	ration Schools Special	Receiving Attention 8 0 0

<sup>1</sup>Cf. ante, p. 31.

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As previously pointed out<sup>2</sup> many opportunities exist for the agriculturally trained and/or experienced in agricultural occupations other than farming. In Table V it is seen that all but one school reported offering instruction designed to acquaint students with the opportunities in agricultural occupations other than farming. This instruction was most commonly offered each year, although four of the eight selected schools offered it only during the freshman year. No teachers reported offering it only during the sophomore year, but the junior and senior years, and senior year groups constitute over one-third of the total.

Not all schools reported the duration of this instruction. In the all-schools category, twelve of twenty-three schools that reported indicated a duration of one week. The four schools in the selected schools category reported a duration of two weeks or longer.

It was thought important to know the materials and methods used in presenting occupational information. Selected sources and methods of presenting occupational information are shown in Table VI. The Table indicates that about half of all the teachers used commercial guidance services as a source of information. Commercial guidance services were agencies that published tests, literature on occupational opportunities, and the

<sup>&</sup>lt;sup>2</sup>Cf. ante, p. 5.

### TABLE V

# STATUS OF INSTRUCTION DESIGNED TO ACQUAINT STUDENTS WITH THE OPPORTUNITIES IN AGRICULTURAL OCCUPATIONS OTHER THAN FARMING

	All S Number	chools Percent	Schools Special Number	Receiving Attention Percent
Offering instruction on opportunities in agricultural occupations other than farming	41	97.6	7	87.5
When given				
Each year of agriculture	26	61.9	2	25.0
Freshman year	6	14.3	4	50.0
Junior and Senior years	9	23.8	1	12.5
Senior year	7	16.7	1	12.5
Given only on an individual basis	2	4.8	0	0
Number of teachers that responded	42		8	
Duration				
One week	12	52.2*	0	-
Two weeks or longer	6	26.1*	4	100.0*
Less than one week	2	8.7*	0	-
Other	3	13.1*	0	-
Number of teachers that responded	23		4	

\*Percent of the number of teachers that responded.

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TABLE	

# SOURCES OF OCCUPATIONAL INFORMATION AND THEIR USE

							Field	trips,
	Contra	ercial	LID	rary	Audio	-Visual	reso	urce
Source of Information	Guidanc	e Service	Sout	rces	A	ids	person	s, etc.
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Use:								
<b>Classroom Instruction</b>								
All Schools	9	14.3	4	9 <b>.</b> 5	25	59 <b>.</b> 5	15	35.7
Schools Receiving								
Special Attention	7	25.0	0	0	7	85.5	Υ	62.5
Individual Instruction								
All Schools	2	4.8	7	4.8	0	0	Ч	2.3
Schools Receiving								
Special Attention	0	0	Ч	12.5	0	0	0	0
Hand-Out to Interested								
Persons								
All Schools	2	11.9	2	11.9	0	0	0	0
Schools Receiving								
Special Attention	-1	12.5	н	12.5	0	0	0	0
Combination of Uses								
All Schools	6	23.8	23	54.8	8	19.0	14	33.3
Schools Receiving								
Special Attention	2	25.0	4	50.0	1	12.5	2	25.0
Number Using:								
All Schools	22	52.4	34	80.9	33	78.6	30	71.4
Schools Receiving								
Special Attention	9	75.0	6	75.0	80	100.0	7	87.5

like, and sold their product to schools and/or other institutions. Library sources, audio-visual aids, and field trips, etc., were used by over seventy percent of the teachers who reported in the two school categories.

Resource persons and the like were the most important means of presenting occupational information in the classroom. Over one-third of the teachers indicated this was the only method they used. Few of the teachers used any of the sources shown in Table VI for presenting information to individuals. Library and commercial guidance service materials were used by over ten percent of the teachers for hand-out to interested persons.

About one-fourth of the teachers stated that they used commercial guidance material in combination with other sources of information. Half of the teachers supplemented library materials with other sources. Audio-visual aids were most commonly used as the only source of occupational information. In the all-schools category only 19 percent used audio-visual aids in combination with other sources, and in the schools receiving special attention less than 13 percent combined audio-visual aids with other sources of information. Field trips, resource persons, etc., were supplemented by 25 percent of the teachers in school receiving special attention, and in one-third of the schools in the all-school category.

Nineteen of the responding schools, including three of the schools receiving special attention, reported that they offered vocational counseling by guidance personnel. This information is shown in Table VII. From the Table it may be seen that field trips to places of business and industry and instructional units on occupations in other classes were the more popular guidance activities in both categories of schools.

### TABLE VII

### OTHER ORGANIZED SOURCES OF VOCATIONAL INFORMATION AND EXPERIENCES OFFERED BY SCHOOLS

	All Schools		Schools Special	Receiving Attention	
	Number	Percent	Number	Percent	
Courses emphasizing educational opportunities beyond high	_				
school	• /	16.6	3	37.5	
Courses providing information on the "world of work"	. 6	14.3	0	0	
Courses providing personal and social information	. 12	28.6	1	12.5	
Field trips to places of business and industry	• 34	81.0	7	87.5	
Units on occupations within other classes	. 27	64.3	6	75.0	
Assemblies where vocational informa- tion is presented	. 12	28.6	4	50 <b>.0</b>	
Vocational counseling by guidance personnel	. 19	45.2	3	37.5	
Work experience supervised by school personnel	. 11	26.2	2	25.0	
Career days	. 22	52.4	4	50.0	
Other	• 4	9.5	0	0	
Number of teachers that responded	. 42		8		

From Table VII it appears that courses providing information on the "world of work", and courses specifically emphasizing educational opportunities and planning beyond the high school were offered less commonly than the shorter units on occupations that became a part of such classes as civics and the social sciences.

The category of schools receiving special attention did not show atypical trends from the all-schools category.

That teachers of vocational agriculture do participate in guidance activities has been already mentioned. Table VIII shows the number and percentage of both categories of schools that used selected guidance practices. The Table shows that a majority of teachers used these activities and techniques.

### TABLE VIII

### USE OF SELECTED GUIDANCE PRACTICES BY TEACHERS

	All-S Number	chools Percent	Schools Special Number	Receiving Attention Percent
Discussing students' vocational choice with parents	. 25	59.5	4	50.0
Keeping individual records on each student	. 29	69.0	4	50.0
Making use of cumulative records, interest inventories, etc	. 32	76.2	7	87.5
Making follow-up studies	28	66.7	6	75.0
Number of teachers that responded	42		8	

Guidance personnel recognize individual records as being of great importance. It was thought important to determine if teachers of agriculture were keeping individual records. Table IX shows that twenty-nine teachers in the all-school category and four in the special-attention category kept individual student records. More important than the mere keeping of records and assembling of information is the use made of the data. The lower part of the Table indicates uses that teachers made of these data. About equal numbers of teachers used them for improvement of the students' individual farm projects, for guidance of individuals, for applications for degrees in the Future Farmers of America,

### TABLE IX

### USES OF INDIVIDUAL STUDENT RECORDS BY TEACHERS

Teachers that reported keeping individual student records 29 69.0 4 Uses	eceiving ttention ercent
Uses	50 <b>.0</b>
Orientation of new teacher 4 13.8* 1	25.0*
Improvement of individual projects. 21 72.4* 3	75.0*
Basis for individual guidance 23 79.3* 3	75.0*
Application for F.F.A. degrees 22 75.9* 3	75.0*
Planning students' long-time program 22 75.9* 1	25.0*
Placement recommendations 1 3.4* 0	0

\*Percent of the number of teachers that responded.

and for planning the long-time program of instruction and project work of students. This table shows no significant differences between the all schools category and the schools singled out for special attention.

### Summary

This chapter provides a description of selected features of forty-two schools offering vocational agriculture in Michigan. Eight schools that had 50 percent or more of their students who selected careers in agriculture were singled out of the forty-two for special attention.

Interest in agriculture and opportunity for carrying on a farming program were the most common criteria used to determine admittance of students in courses of vocational agriculture. Enrollment in subsequent courses was contingent upon the development of a satisfactory farming program and an attitude of interest and cooperation.

Students were, in general, acquainted with occupational opportunities in agriculture over a period of more than one year. The duration varied, but for the most part was longer than two weeks. Occupational information was presented in a number of ways. Library and commercial guidance material were most frequently used in combination with each other or other sources of information. Audio-visual aids, resource persons, field trips, etc., were most commonly used without being supplemented from other sources. Less than half of the schools had persons designated as guidance personnel. A number of guidance activities were shown to be typical of the schools studied. The teacher of vocational agriculture participated in guidance activities in such areas as keeping records on individual students, using other schools records in the guidance of youth, and making follow-up studies. Many of these types of activities by the teacher of vocational agriculture were associated with the development of individual farming programs and progress in vocational agriculture.

There were no significant differences between the eight schools singled out for special attention and the total sample.

### CHAPTER IV

### THE YOUTH THAT WERE STUDIED

The purpose of this chapter is to describe the youth who responded to the student survey as to their home status, their aspirations and expectations, and their ratings of selected factors that may be associated with their vocational plans. In this chapter, as in the previous one, will be found a number of tables and figures. Differences will be noted in the percentages and numbers responding and in the manner of response. Not all of these differences are statistically significant. In order to better interpret the differences, the writer has made use of a Table developed by Cuthbert Daniel<sup>1</sup> and the critical ratio or t test. Daniel's Table, a copy of which is included in the Appendix, was calculated on the basis of 95 percent certainty that differences observed between percentages is not due to the size of the sample.

The procedure, followed by Daniel in determining the significance of the difference found in observed percents, is to find the lower percent and the size of the sample. The figure, in the Table at the point where a line drawn from the size of the sample intersects one drawn from the lower percent, is the difference necessary in order to be significant at the five percent level of confidence.

<sup>&</sup>lt;sup>1</sup>Cuthbert Daniel, "Statistically Significant Differences in Observed Percents", Journal of Applied Psychology, Vol. 24, 1940, pp. 826-830.

Table X shows the home situation of the respondents. Of a total sample of 776 students, 774 responded to the question concerning their home situation. Of these, 513 were freshmen and 261 were seniors; 28.5 percent of the freshmen and 41.0 percent of the seniors were from full-time farms. It would seem to the author that this difference was due to selection on the part of the teachers and selection on the part of the students. In other words, the teachers may have guided the student without a full-time farm situation out of vocational agriculture because among other possible reasons his potentialities of becoming a farmer were quite limited. The student after having had the first year or so of vocational agriculture may have decided that other courses within the school were more nearly in line with his interests and needs and dropped out of the program.

The percent of freshmen and seniors with a part-time farm background were approximately the same; 47.6 percent of the freshmen and 46.7 of seniors came from part-time farms.

The percentage of freshmen and seniors in the renter-tenant category were the same, 4.6 percent.

The non-farm group of freshmen constituted almost 20 percent of the respondents. The senior group in this category constituted only 7.7 percent of the total senior responses. It appears evident that the selective process was intensified between the freshmen and senior years at the expense of this group.

The concern of vocational educators over the selection of students has been mentioned elsewhere. Are teachers of vocational

### TABLE X

### COMPOSITION OF SAMPLE AS TO PARENTAL FARM STATUS

	Fres	Freshmen		iors
	Number	Percent	Number	Percent
Full-time farmers	146	28.5	107	41.0
Part-time farmers	244	47.6	122	46.7
Renters or tenants	24	4.6	12	4.6
Non-farmers	99	19.3	20	7.7
Total responses	513	100.0	261	100.0

agriculture justified in admitting students to a study of vocational agriculture who do not come from full-time farms? If interests and expectations of students may be considered criteria for use in selection, Table XI shows that among freshmen, approximately similar percentages of students whose parents were part-time farmers, renter-tenants, and non-farmers desired to enter agricultural occupations. Differences in the percentages of seniors from full-time and part-time farms who aspired to farming are significant at the 5 percent level. Over half

### TABLE XI

### ASPIRATIONS TO AGRICULTURAL OCCUPATIONS IN RELATION TO PARENTAL FARMING STATUS \*

	Parental Farming Status								
	Full	-time	Par	t-time	Renter	s and	Non-	farm	
	Far	mers	Fat	rmers	Tena	nts			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Freshmen	84	60.4	105	44.7	11	47.6	40	43.5	
Seniors	57	55.3	44	26.6	5	45.5	13	50.0	
*This Tal	ble sho	uld be in	terpret	ed as sho	wn on pa	age 47A.			

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There are four categories of parental farming status shown in Tables XI and XII, full-time, part-time, renters and tenants, and non-farm. The number of freshmen and seniors under each category of parental farming status represent the number who, in Table XI, aspired to agricultural occupations, and in Table XII the number who expected to enter agricultural occupations. For example, in Table XI eighty-four freshmen whose parents were full-time farmers aspired to agricultural occupations. This was 60.4 percent of the total number of freshmen whose parents were full-time farmers. Table XII shows that there were ninety-four freshmen whose parents were full-time farmers who expected to enter agricultural occupations. These ninety-four individuals represented 68.1 percent of all freshmen whose parents were full-time farmers. of the seniors whose parents were full-time farmers aspired to farming whereas only a fourth of those whose parents were part-time farmers aspired to farming. Senior students in the renter-tenant and non-farm categories had about the same aspirations as those whose parents were full-time farmers. About half of the seniors in the former two categories aspired to farming.

It is interesting to note that, if all freshmen from categories other than full-time farmers are lumped together, their agricultural aspirations differed significantly at the 5 percent level from the full-time farmer category, but when seniors are similarly lumped together this does not hold true.

From Table XII it may be seen that the expectation of entering an agricultural occupation varied more with the parental farm status than did the desire to enter an agricultural occupation shown in Table XI. Among freshmen from full-time farm status to non-farm status there was a steady decline percentage-wise in the expectation of entering an agricultural occupation. Figures from seniors show a similar trend. An increased percentage in the renter-tenant category

### TABLE XII

### EXPECTATIONS OF ENTERING AGRICULTURAL OCCUPATIONS IN RELATION TO PARENTAL FARMING STATUS\*

	Parental Farming Status							
	Full-time Farmers		Part-time Farmers		Renters and Tenants		Non-farm	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Freshmen	94	68.1	95	40.3	7	35.0	29	31.2
Seniors	65	62.5	38	33.6	5	50.0-	5	20.8-
*This Tab	ole shou	uld be in	terpret	ed as sho	wn on pa	age 47A.		2

is not statistically significant. Apparently students associated their opportunities of entering agricultural occupations rather closely with parental farm status.

The type of work students indicated they would like most to do is shown in Table XIII. The Table is divided into three parts for both freshmen and seniors. There were 517 freshmen and 259 senior respondents from all schools. These groups are further divided into students who had guidance personnel available to them in the school, and those who did not. There were 241 freshmen with guidance personnel available to them, and 276 without available service. In the senior group it will be noted that 116 had guidance personnel available to them in the school, and 143 did not.

Freshman data in Table XIII indicates that there were very slight differences in any of the three school categories. The largest difference occurred between schools with guidance services and those without in the area of choice in mechanical occupations. The five percent more who chose mechanical careers in those schools with guidance personnel, is not, however, statistically significant.

The vocational aspirations of seniors were not strikingly different from those of the freshmen. It should be noted that the differences lay chiefly between students in schools with and without guidance personnel, and not between freshmen and seniors as such. None of the differences between freshmen and seniors are significant at the 5 percent level of confidence. The fact that decreased numbers of students selected careers in the professions where guidance personnel were
# TABLE XIII

			Fres	hmen		
			School:	s With	Schools	Without
Type of			Guida	nce	Guida	nce
Work	A11 Se	chools	Person	nnel	Person	nnel
	Number	Percent	Number	Percent	Number	Percent
Professional	93	18.0	39	16.1	54	19.6
Service	21	4.1	11	4.6	10	3.6
Clerical & Sales	6	1.1	3	1.2	3	1.1
Agricultural	260	50.3	123	50.8	137	49.6
Mechanical	54	10.4	32	13.2	22	8.0
Manu <b>a</b> l	18	3.5	6	2.5	12	4.3
Military	33	6.4	12	5.0	21	7.6
Uncertain	32	6 <b>.2</b>	16	6.6	17	6.2
TOTAL	517	100.0	241	100.0	276	100.0

•

# THE TYPE OF WORK STUDENTS INDICATED THEY WOULD LIKE MOST TO DO WHEN THEY FINISHED SCHOOL

	Seniors										
		Schools	Without								
Type of			Guida	nce	Guida	nce					
Work	A11 S	chools	Perso	nnel	Person	nnel					
	Number	Percent	Number	Percent	Number	Percent					
Professional	53	20.5	16	13.5	37	25.9					
Service	5	1.9	3	2.5	5	3.5					
Clerical &											
Sales	13	5.0	5	4.2	8	5.6					
Agricultural	127	49.0	64	53.8	63	44.0					
Mechanical	39	15.1	21	17.6	18	12.6					
Manual	6	2.3	4	3.4	2	1.4					

TABLE XIII (Continue	ed)	
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	•	Seniors									
			School	s With	Schools	Without					
Type of			Guida	nce	Guida	nce					
Work	A11 S	chools	Person	nn <b>al</b>	<b>Personnal</b>						
	Number	Percent	Number	Percent	Number	Percent					
Military	3	1.2	3	2.5	0	0					
Uncertain	13	5.0	3	2.5	10	7.0					
	<del></del>					·					
TOTAL	259	100.0	116	100.0	143	100.0					

available as compared with those where guidance personnel were not available should be observed. The increased numbers who elected agricultural and mechanical careers where guidance personnel were available, and the decrease in the number of seniors who were uncertain of their vocational choice in those schools having guidance personnel available are facts worthy of note. A significantly greater percentage in all categories, chose an agricultural occupation as the type of work they would like most to engage in when they finished school.

If it is to be assumed that the youth included in this study were to enter the general labor market, their aspirations with adjustments in terms of opportunities that have been shown to exist in the various occupational areas should be reconciled. The numbers of these youth who aspired to enter service, clerical, and sales occupations were notably low.

Table XIV shows the expectations of 502 freshmen respondents and 274 senior respondents. The Table is divided into the same categories as is Table XIII. The expectations of these youth varied considerably from their aspirations in the areas of professional and manual careers. Both freshmen and seniors in the all-school category showed a decrease that is statistically significant in their expectations of entering the professions over those who aspired to enter occupations classified as professional. On the other hand, there was an increase in the percentage of those who expected to enter occupations classified as "manual" over the percentage of those who aspired to this type occupation in the "all-schools" category. This

### TABLE XIV

# THE TYPE OF WORK STUDENTS INDICATED THEY EXPECTED TO DO WHEN THEY FINISHED SCHOOL

	Freshmen									
			Schools	s With	Schools	Without				
Type of	A11 Sc	chools	Guida	nce	Guida	nce				
Work			Person	nnel	Perso	nnel				
	Number	Percent	Number	Percent	Number	Percent				
Professional	35	6.9	18	8.0	17	6.2				
Service	12	2.4	8	3.5	4	1.4				
Clerical & Sales	10	2.0	3	1.3	7	2.5				
Agricultural	244	48.6	108	48.0	136	49.2				
Mechanical	44	8.8	22	9.8	22	7.9				
Manual	64	12.7	26	11.6	38	13.7				
Military	56	11.2	20	8.9	36	13.0				
Uncertain	37	7.4	20	8.9	17	6.1				
TOTAL	502	100.0	225	100.0	277	100.0				

			Sen	iors		
			School	s With	Schools	Without
Type of	A11 S	chools	Guida	nce	Guida	nce
Work			Person	nnel	Person	nnel
	Number	Percent	Number	Percent	Number	Percent
Professional	32	11.7	9	7.6	23	14.7
Service	2	0.7	2	1.7	0	0
Clerical & Sales	4	1.4	3	2.5	1	0.6
Agricultural	144	52.5	59	50.0	85	54.5
Mechanical	27	9.9	17	14.4	10	6.4
Manual	35	12.8	16	13.7	19	12.2
Military	18	6.6	9	7.6	9	5.8
Uncertain	12	4.4	3	2.5	9	5.8
TOTAL	274	100.0	118	100.0	156	100.0

TABLE XIV (Continued)

difference approaches significance at the 5 percent level of confidence for the freshmen, but does not for the seniors.

Other differences of note in the all-school category, though not statistically significant, occur in the areas of aspiration and expectation of entering mechanical occupations and military. There is little difference between the aspirations and expectations of freshmen with regard to the mechanical occupations. The difference between the aspirations and expectations of seniors in regard to mechanical occupations is not significant. Differences between the aspirations and expectations of both freshmen and seniors with regard to military service are not significant.

In a comparison of expectations and aspirations between schools with and without guidance personnel for both freshmen and seniors one finds decreased numbers who expected to enter the professions over those who aspired to enter them, similarity between aspirations and expectations as to the service, clerical and sales areas, and agricultural areas, and increased numbers who expected to enter manual and military occupations over those who aspired to enter them. More seniors from schools with guidance personnel expected to enter mechanical occupations than freshmen in this same category. The expectations and aspirations of seniors with regard to mechanical occupations were similar in schools with guidance personnel. In those schools without guidance personnel there were fewer seniors who expected to enter mechanical occupations than who aspired to them. There is little difference between the amount of uncertainty as to aspirations and expectations in all categories. Worthy of possible note is the slightly increased surety that seniors felt relative to their expectations. Seniors were more certain of their aspirations and expectations in those schools where guidance personnel were available. None of the differences between schools with and without guidance personnel are statistically significant. They are cited here as being possible trends having value for further study.

What factors have students found to be of importance in helping them make their vocational plans? Table XV shows how freshmen and seniors from the forty-two schools ranked various factors. Figure 2 contrasts freshmen and senior ratings graphically. In general, it will be noted that freshmen were slightly more conservative in their

ratings than seniors, but they followed a similar pattern to that of the seniors. Among the factors rated by both freshmen and seniors as most important in order of rank were work experience other than that sponsored by the school, and parents. Seniors rated others already in the occupation, their study of vocational agriculture,

### TABLE XV

		Freshmen Schools With	Schools Without
	All Schools	Personnel	Personnel
Parents	1.55	1.52	1.58
Friends	0.96	0.99	0.96
Experience	1.56	1.58	1.56
School work experience	0.97	0.95	1.01
School study of occupation	s 1.15	1.11	1.19
Counselors, teachers, or principals	0.74	0.71	0.76
Agriculture teacher	1.07	1.08	1.12
Study of agriculture	1.24	1.25	1.25
Career, similar special days	0.82	0.69	0.94
Class discussion of vocations	1.02	0.94	1.08
Participation in the F.F.A	. 1.17	1.05	1.30
School athletics	0.69	0.64	0.76
Others already in the occupation	1.17	1.17	1.20

• • •

# STUDENT RATING OF VARIOUS SOURCES OF HELP IN MAKING VOCATIONAL PLANS\*

# TABLE XV (Continued)

		Seniors	
		Schools With	Schools Without
		Guidance	Guidance
	All Schools	Personnel	Personnel
Parents	1.55	1.59	1.53
Friends	1.12	1.10	1.18
Experience	1.72	1.70	1.74
School work experience	0.95	0.92	1.03
School study of occupation	s 1.21	1.11	1.31
Counselors, teachers, or principals	0.80	0.76	0.90
Agriculture teacher	1.09	1.11	1.06
Study of agriculture	1.39	1.44	1.37
Career, similar special days	0.96	0.93	0.97
Class discussion of vocations	1.08	1.08	1.12
Participation in the F.F.A	. 1.40	1.44	1.42
School athletics	0.69	0.53	0.83
Others already in the occupation	1.40	1.44	1.42

\*The higher the numerical value the more important the source of help.

the participation in F.F.A., and study of occupations in that order as important, but less so than experience and parents. Freshmen differed significantly from seniors only in one respect: they rated others already in the occupation less important than their study of vocational agriculture.



FIGURE 2

Student rating of various sources of help in making plans for a vocation. The higher the numerical value the more important the source of help.

A further study of the rating given these various factors was made by dividing the schools into two categories: (1) those with guidance personnel and (2) those without. Table XV shows that on the basis of this division school study of occupations, visits with the school counselor, principal or a teacher or teachers, participation in the F.F.A., and sports in school show greater differences for both freshmen and seniors in the two categories of schools than do the other factors. At the five percent level of confidence, however, those ratings found significant were, in schools without guidance personnel: (1) the seniors' higher rating of visits with school personnel other than the teacher of vocational agriculture, (2) the higher rating of participation in the F.F.A. by freshmen, and (3) the higher rating of sports by seniors. Without more information on reasons for these ratings, any explanation of them is conjecture. However, information shown by Table XV indicates that students feel the most important aids to them in terms of vocational planning were factors outside the school, work experience, their parents, and others already in the occupation of their choice.

Another question asked the students was related to their attitudes toward the vocation of their choice. Table XVI shows the responses of freshmen and seniors from forty-two schools. Figure 3 graphically depicts the results of responses to this question. From the Table and Figure it may be seen that interest in the job rated with both freshmen and seniors as being most important. In following order were the feeling of having the qualifications for the job, the working conditions and security afforded by the occupation. Least

### TABLE XVI

### Freshmen Schools With Schools Without Guidance Guidance All Schools Personnel Personnel Personal qualifications 1.59 1.65 1.62 for job 1.40 1.49 1.45 Good salary Working conditions 1.59 1.59 1.60 1.89 1.92 1.90 Interest 1.39 1.44 1.42 Security Opportunities for advancement 1.37 1.42 1.44 Opportunity to serve mankind 1.32 1.31 1.10 1.10 Prestige 1.19 1.28

STUDENT	RATI	NG	OF	FACTO	)RS	ASSOCIATED
I	<b>VITH</b>	VOC	ATI	ONAL	PLA	NNING*

		Seniors	
	All Schools	Schools With Guidance Personnel	Schools Without Guidance Personnel
Personal qualifications for job	1.71	1.76	1.68
Good salary	1.48	1.44	1.55
Working conditions	1.70	1.74	1.69
Interest	1.91	1.93	1.91
Security	1.64	1.64	1.67
Opportunities for advancemen	nt 1.44	1.54	1.41
Opportunity to serve mankind	1.39	1.37	1.42
Prestige	1.30	1.25	1.40

\*The higher the numerical value the more important the factor.





Student rating of factors associated with vocational planning. The higher the numerical value the more important the factor. important were the items labelled opportunities for advancement, the opportunity to serve mankind, and prestige.

It is interesting to note the areas in which freshmen differed significantly from seniors. Working conditions, security, and prestige were of less concern to freshmen in making their vocational plans than to seniors. Otherwise freshmen and seniors were not significantly different in their ratings.

Respondents to this rating were also divided into those from schools with guidance personnel and those without to determine other possible differences. Freshmen were significantly different from seniors in schools without guidance personnel in that they rated as less important in their vocational plans security and the opportunity to serve mankind.

In schools with guidance personnel, freshmen were significantly different from seniors in that they rated as less important in their vocational plans having personal qualifications for the job, security afforded by the occupation, the opportunities for advancement, and prestige. The greater importance accorded working conditions by seniors borders on being a significant difference between freshmen and seniors in these schools.

The only statistically significant difference in responses from schools with and without guidance personnel lay in the greater importance accorded the opportunity to serve mankind by freshmen in schools with guidance personnel. This may not be attributable directly to the work of guidance personnel since the author's experience indicated that they had only slight contact with freshmen in most of these schools. It seems natural to question the value of vocational agriculture to those students who do not plan to enter full-time farming. Table XVII shows evaluative responses from 468 freshmen and 248 seniors without reference to their occupational choice, and their responses when divided into those who have made part-time farming or related occupations choices.

It will be seen that in the "All Students" category one in five freshmen felt that their training in vocational agriculture was of little or no value in the work they would like most to do. Questions as to why these students elected to take the subject or were allowed to enter it might well be raised. Only one in twelve seniors in the

### TABLE XVII

# EVALUATION OF VOCATIONAL AGRICULTURE BY THE ENTIRE SAMPLE OF STUDENTS, AND BY THOSE WHO CHOSE TO ENTER SPECIFIC CATEGORIES OF AGRICULTURAL OCCUPATIONS OTHER THAN FULL-TIME FARMING

	Freshmen							
					Rela	ted		
			Part.	-Time	Occupation			
	A11 S	tudents	Farming	g Choice	Choice			
	Number	Percent	Number	Percent	Number	Percent		
Helped develop needed								
skills	312	66.7	2	66.6	16	100.0		
Helped develop needed attitudes	204	43.6	2	66.6	12	75.0		
Helped develop leisure-time interests	97	20.7	0	0	0	0		
Of little or no value	91	19.4	1	33.3	2	12.5		
Number of students who responded	468		3		16			

# TABLE XVII (Continued)

	Seniors						
			Related				
			Part-	-Time	Occupation Choice		
	A11 S	tudents	Farming	g Choice			
	Number	Percent	Number	Percent	Number	Percent	
Helped develop needed	15/	(0.1	2	75 0	1/	100.0	
SKILLS	154	62.1	3	/5.0	14	100.0	
Helped develop needed attitudes	154	62.1	3	75.0	9	64.3	
Helped develop							
leisure-time interests	55	22.2	0	0	3	21.4	
Of little or no value	21	8.5	1	25.0	2	14.3	
Number of students who responded	248		4		14		

"All Student" category rated this training of little or no value. Apparently the selective process previously noted was effective in eliminating many for whom vocational agriculture was not meaningful.

Four students indicated a choice of part-time farming. Of these one felt his training in vocational agriculture would be of little or no value. This group is too small in number to apply tests of significance to its responses.

Table XVII shows that fourteen students chose related occupations and they valued their experiences in vocational agriculture more highly. All indicated that the training helped develop needed skills although some felt it would be of little or no value.

Several inferences can be drawn from this Table. First, part-time farming and related occupations were not popular choices of students who responded to this study. If findings<sup>3</sup> reported by the Michigan Department

<sup>&</sup>lt;sup>3</sup>"Facts for Administrators and Guidance Workers" (Lansing, Michigan: Department of Public Instruction, 1957).

of Public Instruction related to the size of the working force engaged in these occupations may be taken as an indication of the opportunity in these areas, farm boys did not avail themselves of opportunities in which presumably they could use their skills and training. Second, student responses did not indicate recognition of F.F.A. recreational activities as developing leisure time interests. Lastly, students apparently did not recognize the relationship that may exist between vocational agriculture training and preparation for part-time farming or careers in related occupations.

Table XVIII shows the same evaluation items, but responses are from students who elected full-time farming. The respondents are classified by parental farm status. This Table shows that regardless of parental farm status a significantly large percentage of both freshmen and seniors recognized the value of their vocational agriculture training in the occupation of farming. A very small number in each case felt the training to be of little or no value.

Nelson's study cited in the Review of Literature<sup>2</sup> disclosed that in schools having guidance personnel, the teacher of vocational agriculture employed more guidance techniques as part of his instructional program. With this in mind, student ratings of the value of vocational agriculture were compared in Table XIX for schools with and without guidance personnel. It may be seen that freshmen in both categories of schools gave very similar responses. Seniors differed, although not significantly. In schools that had guidance personnel, a larger

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	μ <b>Ξ</b> 4	ARM STATU	S BY STU	DENTS WHO	CHOSE FI	ULL-TIME	FARMING		
	Helped Neded	Develop   Skills	Helped	Develop Attitudes	Helped Leisui Thi	Develop re-Time	Of Litt No Hel	le or	
		011110	nonoou	Fresh	men				Total Number
Parental Farm									Of Students
Status	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Who Responded
Full-time farme	rs 60	82.2	35	47.9	11	15.1	4	5.5	73
Part-time farme	rs 27	93.1	22	75.9	13	44.8	Ч	3.4	29
Renters or Tenants	Ŋ	100.0	0	o	0	0	0	0	'n
Non-Farmers	30	100.0	13	43.3	2	<b>6.</b> 6	0	0	30
				Sení	OTS				
Full-time farme	rs 41	82.0	25	50.0	ω	16.0	1	7	50
Part-time farme	<b>rs</b> 12	85.7	13	92.9	Ń	35.7	1	7.1	14
Renters or Tenants	ę	100.0	0	o	1	33.3	0	0	m
Non-Farmers	4	66 <b>.</b> 6	9	100.0	9	100.0	н	1.7	Q

, TABLE XVIII EVALUATION OF VOCATIONAL AGRICULTURE WITH RESPECT TO PARENTAL

### TABLE XIX

# EVALUATION OF VOCATIONAL AGRICULTURE BY STUDENTS IN SCHOOLS WITH AND WITHOUT GUIDANCE PERSONNEL

	Schools Fresh	Having	Guidance Sen	Personnel iors
	Number	Percent	Number	Percent
Helped develop needed skills	144	44.6	79	45.1
Helped develop needed attitud	les 93	28 <b>.9</b>	68	38.9
Helped develop leisure-time				
interests	47	14.5	22	12.6
Of little or no value	39	12.0	6	3.4
Total	323		175	

	Schools ] Fres	Not Having hmen	Guidan Sen:	ce Personnel iors	•
	Number	Percent	Number	Percent	
Helped develop needed skills	<b>s 168</b>	44.0	75	35.9	
Helped develop needed atti- tudes	111	29.3	86	41.1	
Helped develop leisure-time interests	50	13.1	33	15.8	
Of little or no value	52	13.6	15	7.2	
Total	381		209		

percentage of senior responses indicated vocational agriculture as having helped develop needed skills, and a lesser number of responses indicated the training as having little or no value when compared with responses from seniors in schools without guidance personnel. These differences were not significant.

In vocational planning, two very important considerations are one's qualifications for the work, and the requirements of the work. Students in this study were asked to indicate the most important source of help in understanding their qualifications. Table XX shows that students recognized sources outside the school as being the most important help in understanding the requirements for the work which they would like most to do. The next Table, Table XXI, likewise indicates that sources outside the school were more important than school sources in helping students understand their qualifications for the work they would like most to do. Significance exists in all categories in both Tables with one exception. The one exception is in those schools with guidance personnel. The following factor contributed to this exception: in those schools with guidance personnel, school sources of help were recognized by seniors as more important than in schools without guidance personnel, although not more important than out-of-school sources. In those schools with guidance personnel it was the teacher of vocational agriculture who was rated most important as a source of help by seniors, but other school sources of help also were rated more highly than in those schools without guidance personnel.

It might be expected that freshmen ratings would show little difference in schools with and without guidance personnel; since these data were gathered early in the school year freshmen contacts with guidance personnel were limited largely for reasons already inferred. Practices encouraged or implemented by guidance personnel in the schools

	Fres Number	All S hmen Percent	chools Sen Number	iors Percent	) Fresh Number	Schoo] Suidance men Percent	ls With Person Sen: Number	nel lors Percent	Cu Gu Fresh Number	Schoo Idan men Perc	ls l ce ] ent	ls Without ce Personn Sen ent Number
focational Igricultur Iource	e 121	25.9	84	33.8	64	28.4	43	38.3	57		23.5	23.5 41
)ther school source	66	14.1	24	2.6	29	12.9	12	10.7	37		15.2	15.2 12
source outside the school	281	60.0	140	56.5	132	58.7	57	51.0	149		61.3	61.3 83
										•		
Total	468	100.0	248	100.0	225	100.0	112	100.0	243	•••	100.0	100.0 136

TABLE XX

•

MOST IMPORTANT SOURCE OF INFORMATION ABOUT THE REQUIREMENTS OF THE WORK STUDENTS INDICATED THEY WOULD LIKE MOST TO DO

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E
TAB

# SOURCE INDICATED BY STUDENTS AS BEING OF MOST HELP IN UNDERSTANDING QUALIFICATIONS FOR THE WORK THEY WOULD LIKE MOST TO DO

		All S	chools		,	School	ls With	-	Ċ	Schools	Without	тт <u>г</u>
Z	Fres] [umber	hmen Percent	Sen: Number	iors Percent	Presh Number	ru 1 dance men Percent	rerson Seni Number	le1 .ors Percent	Fresh Number	men Percent	rersonn Sen: Number	eı lors Percent
Vocational agriculture source	113	23.5	72	29.6	61	26.6	41	36.6	52	20.7	34	25.4
Other school source	41	8.5	22	9.1	17	7.4	13	11.6	24	9.6	6	6.7
Source outside the school	326	68 <b>.</b> 0	149	61.3	151	66.0	58	51.8	175	69.7	91	67.9
	ł		ł				ł				ł	
Total	480	100.0	243	100.0	229	100.0	112	100.0	251	100.0	134	100.0

would have had little effect. Seniors (in schools with guidance personnel), however, have had more extensive contacts with these practices and their responses indicated greater help in their vocational planning from school sources.

It will be recalled that Chapter Three was devoted to a description of the program of vocational agriculture in the schools studied. A study of this information was made to determine the possible association between the choice of an agricultural occupation and the opportunity of freshmen for carrying on a farming program. Table XXII indicates that of 169 freshmen in schools that limited enrollment to those having a farming program, half had selected an agricultural occupation as the work they would like most to do.

### TABLE XXII

# CHOICE OF AN AGRICULTURAL OCCUPATION BY FRESHMEN IN SCHOOL WITH AND WITHOUT ENROLLMENT LIMITED TO THE OPPORTUNITY FOR CARRYING ON A FARMING PROGRAM

	Agricultural Number	Occupation Choice Percent
Enrollment limited on basis of opportunity for carrying on farming program	169	50.6
No limitation of enrollment on basis of opportunity for carrying on farming program	91	49.7
PIOBIUM .		47.7

There were 91 freshmen in schools which did not have a requirement that enrollees have the opportunity for carrying on a farming program. Of these 91 freshmen approximately half chose an agricultural occupation. On the basis of this sample, it would appear that the opportunity to carry on a farming program was not associated with the choice of an agricultural occupation.

To further pursue this subject, the expectations of seniors were studied in an effort to determine possible association between the development of a satisfactory farming program and the expectation of entering an agricultural occupation. Table XXIII shows that there were 95 seniors in schools where a satisfactory farming program was a prerequisite for subsequent enrollment in classes of vocational agriculture. Forty-five seniors responded where there was no farming program prerequisite for subsequent enrollment. Approximately half of the students in both categories expected to enter agricultural occupations. The findings reported in Tables XXII and XXIII somewhat parallel those of Bjoraker cited in the Review of Literature.<sup>4</sup> They indicate

### TABLE XXIII

# EXPECTATIONS OF SENIORS OF ENTERING AN AGRICULTURAL OCCUPATION IN SCHOOLS WITH AND WITHOUT ENROLLMENT LIMITED TO THOSE DEVELOPING SATISFACTORY FARMING PROGRAMS

	Expectation of Agricultural Number	f Entering An Occupation Percent
Prerequisite of development of a satis- factory farming program for enrollment	95	50.3
No farming program prerequisite for enrollment	45	52.9

<sup>4</sup>Cf. ante, p. 27.

that external factors of opportunity cited in the present study were not significantly associated with vocational choice and expectation of entering agricultural occupations.

### Summary

This study shows that the majority of students of vocational agriculture came from either full-time or part-time farms. About half of all students aspired to enter agricultural occupations, but their expectations varied directly with the degree of parental involvement in farming. Next in importance to agricultural occupations in student aspirations were professional and mechanical occupations. Student expectations showed a decided change in favor of entering unskilled School factors were less important in helping students occupations. make their vocational plans than were parents and experience. Interest was found to be very important in student vocational planning, with concerns relative to working conditions and security slightly less important. Respondents indicated that sources outside the school were most important as sources of information on the requirements of the work they would like most to do, and their qualifications for this work. Within the school system the teacher of vocational agriculture was rated as the most important source of help and information in understanding job requirements and personal qualifications. Most students felt that their study of vocational agriculture had helped them develop skills and attitudes needed in the work of their choice. In those schools with guidance personnel there were few statistically

significant differences when compared with those not having guidance personnel, however, increased numbers of students in schools with guidance personnel expressed a concern in helping mankind. Students in these schools, for the most part, were more certain of their vocational plans and chose to enter mechanical occupations when not choosing agriculture. Senior students in schools with guidance personnel indicated school sources of help to be somewhat more important in vocational planning than in schools without guidance personnel. Choice of an agricultural occupation, the expectation of entering one, and opportunity were not significantly related in this study.

### CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### SUMMARY

This study is a report of an investigation into the vocational choices of students of vocational agriculture. Selected factors, particularly school factors, that might be associated with the choices of these youth are described. Information was obtained from forty-two schools in Michigan that offered vocational agriculture. The data were collected by means of questionnaires mailed to the teachers and their freshman and senior students.

Forty-two teachers responded to the teacher questionnaire. Eight schools from which teachers responded were singled out for special attention. In these schools 50 percent or more students selected an agricultural occupation as the work they would like most to do.

In interpreting the findings reported here one should view them as being characteristic of the population of this study. They are not necessarily characteristic of the universe. Those that are statistically significant have been indicated. Some findings that are not statistically significant have been reported when considered worthy of further investigation.

Teachers who responded in this study indicated they engaged in a number and variety of guidance activities. The purpose of many of these activities was to promote student farming programs.

One of the guidance activities of teachers could be labelled, "selection of students". Teacher responses showed that "interest in agriculture" was the most frequent basis for admission to the first course in agriculture. Significance was at the five percent level.

Continuance in subsequent courses was on several bases such as passing grades, an attitude of cooperation and interest, the development of a satisfactory farming program, and the teacher's decision as to the desirability of continuance in subsequent courses. None of the major bases showed significant differences from each other.

Among other guidance activities in which teachers engaged was the presentation of occupational information. Information included opportunities in farming and agricultural occupations other than farming. There was only one teacher who did not report having engaged in the presentation of information on opportunities in farming. One teacher indicated that he did not present information on opportunities in agricultural occupations other than farming.

In presenting occupational information a number of methods were used. The most common method was through classroom discussion. Other methods included field trips and use of resource persons, the use of instructional aids, and farm visitation. Most teachers indicated that these methods were carried on continuously. Instruction designed to acquaint students with the opportunities in agricultural occupations was offered to some extent in each year of agriculture.

Turning from methods of instruction in occupational opportunities to the various sources of occupational information used by teachers, it

was found that commercial guidance services were used by about half of the teachers. Materials from these sources were used in classroom instruction, for individual instruction, and for distribution to interested persons. About a third of the schools that reported the use of these materials indicated combined use with other sources of occupational information.

Library sources of occupational information were used in the classroom and for use by individuals. In half of the schools they were used in combined ways.

Audio-visual materials were among more frequently reported sources of occupational information. They were more often reported as the only source of occupational information than were the other sources. More than half of the teachers that reported audio-visual sources of occupational information indicated that they were used in the classroom.

Field trips and resource persons were reported by about three-fourths of the teachers as sources of occupational information. About one-third of the teachers who provided these sources of occupational information supplemented them from other sources.

Teachers in schools selected for special attention reported using the various sources of occupational information proportionately less for individual instruction than did the total sample. None of these differences was statistically significant, however.

In addition to the guidance activities carried on by teachers of vocational agriculture, almost half the schools had other guidance

activities under the direction of guidance personnel. More than half of the schools provided field trips to places of business and industry, units on occupations within other classes, and career days. Among the least common activities were courses providing information on the world of work, or educational, personal and social information, and work experience supervised by school personnel.

The eight schools selected for special attention were not significantly different in their offerings from those of the total sample. None of them offered courses on the world of work.

Teachers were asked about the use of individual student records. The majority reported their uses as being for the improvement of individual projects, for individual guidance, for application for F.F.A. degrees, and for planning the student's long-time program. Differences between the total sample and the selected schools were not significant.

Half or more of the teachers in both school categories reported discussing with parents the vocational choices of students, keeping individual records on each student, making use of other school records and test results, and making follow-up studies.

Attention is now directed from a description of selected features of the program of vocational agriculture and of the guidance services in schools from which teachers responded, to data collected from the responses of students in these schools.

The student sample consisted of 517 freshmen and 261 seniors. The freshmen differed significantly from the seniors in respect to parental farm status. There were significantly less freshmen than seniors whose

parents were full-time farmers. The increased percentage of freshmen, whose parents were non-farmers, bordered on significance at the five percent level when compared with the percentage of seniors in that category. About every fourth freshman's parents were full-time farmers, and two of every five seniors' parents were full-time farmers. Slightly less than half of both freshmen and seniors were from part-time farms. -About one in every twenty students were from rented or tenant farms. Differences within the freshmen group with respect to parental farm status were significant in all instances except between the renter-tenant and non-farmer categories. The percentages of seniors whose parents were full-time and part-time farmers differed significantly from the renter-tenant and non-farmer categories, but not from each other. Differences between seniors in the renter-tenant and non-farmer categories were not significant.

Student vocational aspirations were placed in eight categories. Half of all students that responded aspired to an agricultural occupation. This was significantly different from aspirations in other categories. No statistically significant differences were found between freshmen and seniors with respect to their vocational aspirations in all schools and in schools with and without guidance personnel.

The number of students that aspired to part-time farming and agricultural occupations (other than farming) seems notably low. Of the total number of respondents, only 37 students or less than 5 percent chose to enter these occupations.

The percentage of all freshmen, who chose to enter professional

occupations, was significantly different from that of freshmen who desired to enter other occupations except mechanical. The percentage of all freshmen, who chose to enter mechanical occupations, was significantly different from those who chose agriculture. About every fifth freshman student aspired to one of the professions. One in ten freshmen aspired to a mechanical occupation.

The percentage of seniors, who chose to enter the professions and mechanical occupations, differed significantly from those who chose agricultural occupations. One in five seniors aspired to a professional occupation, and one in seven to a mechanical occupation.

The Bureau of Social Research Study at Michigan State College, cited in the Review of Literature<sup>1</sup>, indicated a difference between the vocational aspirations and expectations of youth. Similar differences were found in the present study. Percentagewise, there appears a sizable decrease in the numbers of students in the present study who expected to enter the professions as compared to the number that aspired to them. This difference between freshmen and senior expectations and aspiration, however, was not found significant statistically in all schools or schools either with or without guidance personnel.

There were also increased percentages, though not statistically significant, of freshmen and seniors who expected to enter manual occupations as compared to the number that aspired to them.

Approximately the same numbers of freshmen and seniors expected to enter agricultural occupations as aspired to enter them.

Approximately the same numbers of freshmen and seniors expected to enter agricultural occupations as aspired to enter them.

There were no statistically significant differences between the expectations of freshmen and seniors in all schools or schools with and without guidance personnel. About half of all the students expected to enter an agricultural occupation; this number was significantly different from those who expected to enter other occupational categories, and was the only difference significant at the five percent level among all categories of occupational expectations.

There was a significant difference found between the percentages of both freshmen and seniors who aspired to agricultural occupations and whose parents were full-time and part-time farmers. Significantly more students whose parents were full-time farmers aspired to agricultural occupations than those whose parents were part-time farmers. Three of every five students whose parents were full-time farmers aspired to agricultural occupations. Only slightly more than two of every five whose parents were part-time farmers aspired to these occupations. Differences between students from other parental farm classifications were not significant. Differences between aspirations of freshmen and seniors were not significant.

Expectations as to entering agricultural occupations were found to vary with parental farm status. Boys whose parents were full-time farmers appeared to recognize in significantly greater numbers that opportunities were greater for them to enter farming than did boys whose parents were not full-time farmers. Differences found significant were those between all students whose parents were full-time farmers and

those whose parents were part-time farmers and non-farmers. Differences between expectations of freshmen and seniors were not significant.

The possibility as to whether there was any significant association between vocational choice and the requirement that freshmen have an opportunity for carrying on a farming program was investigated. It was found that approximately equal numbers of students chose agricultural occupations whether there was or was not the limitation of having the opportunity for carrying on a farming program.

A similar analysis was made of senior responses to determine possible association between expectation of entering an agricultural occupation and the prerequisite of development of a satisfactory farming program for subsequent enrollment. Approximately equal numbers of students expected to enter agricultural occupations in schools with and without the farming program requirement.

Students were asked to cite the source of most of the information about the requirements for the work which they indicated they would like to do. A significant number of freshmen and seniors indicated that most of their information about work requirements for the work they would like most to do came from a source outside the school. When the numbers that indicated the vocational agriculture sources of information and other school sources of information were combined, out-of-school sources of information were still significantly more important than school sources. The number of students that indicated the teacher of agriculture or an experience in vocational agriculture as being the source of most of their information on work requirements approached significance when compared with other school sources of information.

Responses to the companion item in the student questionnaire which requested the source of greatest help in understanding their own qualifications for the work they would like most to do showed a striking similarity between freshman and senior responses. Sources outside the school were indicated by both freshmen and seniors as being of significantly greater help than school sources in understanding their own qualifications for the work they would like most to do. When the number that indicated vocational agriculture sources of help and other school sources of help were combined, the out-of-school sources were still significantly more important. Although teachers of vocational agriculture were indicated as resources more often than other school sources, the difference was not significant.

Student responses as to the most important source of information about work requirements were considered from schools with and without guidance services. In those schools having guidance personnel there was no significant difference between out-of-school sources of information and all school (vocational agriculture and other school sources) sources of information. This fact is true for both freshmen and senior responses. In schools without guidance personnel, out-of-school sources of information on work requirements were significantly more important than school sources.

In schools with guidance personnel, freshmen in statistically significant numbers indicated out-of-school sources as being the most important help in understanding qualifications for the work they would

most like to do. Greater numbers of seniors in schools with guidance personnel than seniors in schools without guidance personnel, indicated school sources as being of relatively more help in understanding qualifications for the work they would like most to do. The difference between out-of-school sources and school sources of help in the schools with guidance personnel was not significant in the case of senior responses. In schools without guidance personnel, however, out-of-school sources of help were significantly more important than school sources.

Students did not rate teachers of agriculture as being significantly more important than other school sources of help in understanding work requirements or qualifications in any instance.

Students were asked to indicate the contribution of vocational agriculture to the occupation of their choice. A significant number of freshmen and seniors indicated that vocational agriculture helped them develop needed skills. Significantly fewer freshmen indicated vocational agriculture helped them develop needed attitudes. However, the same number of seniors associated the development of needed skills and attitudes with their courses of vocational agriculture. There were significantly fewer freshmen and seniors who indicated that vocational agriculture helped them develop leisure time interests, or that it was of little or no value when compared with the contribution it made to the development of needed skills and attitudes. The only statistically significant difference between freshmen and seniors occurred in the greater percentage of seniors who indicated that vocational agriculture helped them develop needed attitudes.

Students who made a choice of part-time farming were not sufficient in number to establish significance in evaluating the contribution of their agriculture courses to their vocational choices. Those who chose related agricultural occupations indicated in all cases that vocational agriculture helped them develop needed skills. Significantly fewer of these individuals felt that it helped them develop needed attitudes.

Students with respect to various types of parental farm status evaluated the contribution vocational agriculture had made to their plans. Both freshmen and seniors in significant numbers, in each category of parental farm status, rated vocational agriculture as being more helpful in developing skills and attitudes than being of little or no value. Significantly fewer freshmen and seniors from full-time farms indicated vocational agriculture helped develop needed attitudes as compared to development of needed skills.

A significantly large proportion of all students felt that vocational agriculture contributed to the vocation of their choice. Although half of the students did not choose agricultural occupations, only one in five freshmen and one in twelve seniors indicated it would be of little or no value in the occupation of their choice.

### CONCLUSIONS

Conclusions in this report are drawn from findings to which tests of statistical significance have been applied. Application of these conclusions to a larger population than included in this study may or may not be justified.

On the basis of the findings in this study one would be justified in concluding that the vocational aspirations of the youth in this study (with the exception of those who chose agricultural occupations) were very similar to findings on vocational aspirations of other youth. Some of these findings are cited in the Review of Literature.<sup>2</sup> Apparently these rural youth as compared with youth cited in other studies, needed help in making vocational choices that were realistic in terms of the opportunities for employment available to them. When judged by student responses, programs within the schools did not appear to have had significant effect upon the vocational choices of these rural youth. This might be expected when viewed in terms of the sources from which youth indicated they received most of their vocational information. Sources outside the school, and in particular the home, were indicated as being the most important sources of help in the career planning of youth.

When the percentages of these youth who indicated that they expected to enter farming are considered in contrast to the very small percent who indicated an interest in part-time farming and agricultural occupations other than farming, the realism of their agricultural choices appears suspect. In the brochure, "Facts for Administrators and Guidance Workers"<sup>3</sup>, published by the Michigan Department of Public Instruction, it is pointed out that 25 million people work in agricultural occupations. The majority of these people were in occupations

<sup>3</sup>Michigan Department of Public Instruction, loc. cit.

<sup>&</sup>lt;sup>2</sup>Cf. ante, pp. 22-25.
other than farming. Yet few students chose these occupations. This present study does not reveal that significantly greater emphasis was placed on acquainting students with opportunities in farming than in other agricultural occupations. This, the author would consider to be wise and in agreement with the stand taken by the National Manpower Council which stated that vocational courses should provide a broad base for later vocational training rather than being confined to preparation for specific jobs.<sup>4</sup> That these rural youth may not have been fully aware of the possibilities in agricultural occupations other than farming or were unwilling to consider them as favorably as farming appears to be a justifiable conclusion.

The lack of association at significant levels between the opportunity for carrying on a farming program and the development of a satisfactory farming program and vocational choice paralleled findings of Bjoraker, cited in the Review of Literature.<sup>5</sup> He concluded that the boy's total attitude toward farming was probably more important in relation to his desire to remain on the farm than most other personal, farm, and family factors. Ahalt and Murray's findings mentioned in the Review of Literature<sup>6</sup> indicated a liking for farming by those young men who became farmers. This appears important if a "liking for" and "interest in" may be assumed to have similar meaning.

4 National Manpower Council, A Policy for Skilled Manpower (New York: Columbia University Press, 1954), p. 23.

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<sup>&</sup>lt;sup>5</sup>Cf. ante, pp. 27, 28.

<sup>&</sup>lt;sup>6</sup>Cf. ante, p. 28.

The present study shows that the interest a youth has in an occupation was among the most important factors that influenced his choice. It may be recalled that interest was among the factors which teachers indicated as bases for admission to the first and subsequent courses in agriculture. It was not, however, accorded greater importance than other factors used in selection.

If teachers and the schools are to be more effective in guiding the vocational choices of youth, one method to that end would be to spend more time with parents discussing the interests and plans of youth. This conclusion appears especially valid in view of the importance students accorded parental help in making vocational plans. Only slightly more than half of the teachers in this study responded to the question that indicated they discussed students' vocational plans with parents.

There appeared to be sufficient association between the presence of guidance personnel in the school and the value of school sources of help in understanding work requirements and qualifications so that out-of-school sources of help were not rated significantly more helpful than school sources. With no more facts at hand than afforded in this study, a cause and effect relationship cannot be claimed. However, it may be concluded that guidance personnel, in the schools responding to this study, were associated with an improvement in the school's contribution to the vocational understanding of the youth surveyed.

Other findings in this study indicated that seniors had significantly more concern over working conditions and security than did

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freshmen. The opportunity to serve mankind was of only minor importance.

The Future Farmers of America is an organization of high school students of vocational agriculture. It has as one of its goals the development of worthy use of leisure time. To this end chapters of this organization characteristically provide a number of recreational activities. However, it was found that students did not associate their study of vocational agriculture with the recreational activities of the F.F.A. and the development of leisure time interests. A possible conclusion from this finding would be that the type of activities chosen by the organization are not ones which the students would otherwise choose for a leisure time interest or activity, or that there is no effort through the organization or by the teacher to associate the activities with the use of leisure time.

Significantly more seniors than freshmen rated "needed attitudes" as having been developed through their vocational agriculture course work. This response is probably due to the word, attitude, having greater meaning to seniors than to freshmen, and to the longer period of course work of seniors over which development of attitudes could take place.

## RECOMMENDATIONS

In view of the findings of this study and the author's experience the following recommendations are made:

 Teachers of vocational agriculture should place greater emphasis upon interest in entering agricultural occupations as a prerequisite to entrance 88

into the first and subsequent courses of vocational agriculture.

- Teachers need to work more closely with parents concerning the vocational guidance of their youth.
- 3. Training in guidance and counseling should be included in the teacher education curriculum of agriculture teachers in order that they may more effectively perform their guidance functions and contribute to the total guidance program of the school.
- 4. Means of preparation for, entrance into, and progress in agricultural occupations other than farming should receive equal or greater emphasis than farming.
- 5. The role played by recreation in the worthy use of leisure time and as a part of successful vocational development should receive more emphasis in courses of vocational agriculture and through the Future Farmers of America.
- 6. The development and implementation of school programs aimed at providing understandings necessary for intelligent course selection and career planning should become more widespread.
- 7. Changes in the program of vocational agriculture should come only after careful study as to the possibility of their implementing desired outcomes.

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APPENDIX

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1.	On what basis are students admitted to the first courses of vocational agriculture? (Check the appropriate item or items)
	<ul> <li>a) Interest in agriculture</li> <li>b) Opportunity for carrying on a farming program</li> <li>c) Interest or willingness in joining the FFA</li> <li>d) Student has had at some time a farming background</li> <li>e) No restrictions the first year</li> <li>f) Other (specify)</li> </ul>
2.	On what bases are they allowed to enroll in subsequent courses (in agriculture)? (Check the appropriate item or items)
	<ul> <li>a) Passing grades</li> <li>b) Attitude of cooperativeness and interest</li> <li>c) Teacher's decision as to the desirability of continuing</li> <li>d) Development of a satisfactory farming program</li> <li>e) Other (specify)</li> </ul>
3.	In what ways do you acquaint students with the opportunities in farming? (Check the appropriate item or items)
	<ul> <li>a) Classroom instruction and discussion</li> <li>b) Field trips and resource persons</li> <li>c) Instructional aids such as bulletins, articles, school farms, etc.</li> <li>d) Farm visitation</li> <li>e) Other (specify)</li> </ul>
	In what year or years is this done and over how long a period? (Check the appropriate item or items)
	a) First two yearsd) Continuouslyb) Ag I and IVe) One week when offeredc) First yearf) Other (specify length)
4.	Have you attempted to acquaint students with the opportunities in agricultural occupations other than farming? YesNo
	If the answer is "yes", in what year or years and over how long a period of time has this taken place?
	<ul> <li>a) Each year of agf) One week</li> <li>b) Junior and Senior yearsg) Two weeks or longer</li> <li>c) Senior yearh) Less than one week</li> <li>d) Freshmen yearh) Other (specify)</li> <li>e) Given only on anindividual basis</li> </ul>

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- 5. What other organized sources of vocational information and experiences are available in your high school? (Please check and fill in appropriate spaces)
  - Courses specifically organized to provide information on a) further educational opportunities beyond the high school\_\_\_\_\_Grade offered students\_\_\_\_\_ Duration
  - Courses specifically organized to provide information on Ъ) the "world of work".\_\_\_\_\_Grade offered students Duration\_\_\_\_\_\_
  - <u>c)</u> Courses specifically organized to provide social and personal information. Grade offered students Duration students
  - d) Field trips to places of business and industry.
  - e) Units on occupations in other classes.
  - f) Assemblies where vocational information is offered.
  - g) Vocational counseling by guidance personnel.\_\_\_\_\_
  - h) Work experience supervised by school personnel.
  - i) Career days.\_\_\_\_
  - j) Other (specify)
- What sources of occupational information have you used and how 6. have you used it? (Match the number or numbers on the right with items "a" through "e")

#### Sources

- a) Commercial guidance sources
- Ъ) Library sources of vocational information including books, bulletins, charts, etc.
- c) Audio-visual aids such as filmstrips, films, etc.
- Information obtained from field 4) Other (specify) d) trips and resource persons\_\_\_\_\_

e) Other (specify)\_\_\_\_\_

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## Uses

- 1) Classroom discussion
- 2) Individual instruction
- 3) Handout to interested individuala

- 7. Have you made a practice of discussing with the parents of each student his vocational choice? Yes No 8. Have you kept an individual record on each student? Yes No If, Yes, how has it been useful? (Check the appropriate item or items) a) In orienting a new teacher to the program Ъ) For improving individual projects c) As a basis for individual guidance d) In applying for advanced FFA degrees e) In planning a student's long-time program Other (specify)\_ f) 9. Have you made use of the students' cumulative records, the CA 39, interest inventories, achievement records, etc? Yes No If, yes, how have they been useful? (Check the appropriate item or items) Determining individual capability **a** ) As an aid to understanding the student **b**) As an aid in determining the student's interests c) d) As an aid in evaluating the effectiveness of instruction in agriculture for the individual student e) Other (specify) Have you made follow-up studies of graduates? Yes\_\_\_ No\_\_\_\_ LO. Of what use have you found them, if any? (Check the appropriate item or items) **a**) In planning instruction to meet local needs **b**) In securing Young and Adult Farmer enrollments
  - c) Other (specify)

This is a survey to help teachers improve the educational program. Please be frank and sincere in your answers. You need not sign your name.

- 1. What kind of work would you like most to do when you finish school?
- 2. What kind of work do you expect to do when you finish school?
- 3. Below are several items that some students have said were important aids to them in making their vocational plans. Rate them as sources of help in making your vocational plans by putting a check in the columns pertaining to you.

		Very Important	Of some Importance	Not Important
		<b></b>		
a)	Parents			
ъ)	Friends			
c)	Experience in the work of my choice			
a)	Work experience spon- sored by the school			
e)	Study of occupations in school			
f)	Visits with the school counselor, principal, or a teacher or teachers			
<b>g)</b> .	Talks with my agri- culture teacher			
h)	My study of vocational agriculture			
1)	Special days such as career and similar days			

Very	Of some	Not
Important	Importance	Important

- j) Classes in which units on vocations were discussed
- k) Participation in the FFA
- 1) Sports in school
- m) Others already in the occupation
- n) Other (specify)

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4. Rate the following as to their importance in your plans.

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		Very Important	Of some Importance	Not Important
a)	I have the qualifica- tions for the work	-		
ъ)	The good salary			
с)	The working conditions (Such as working with people, working alone, inside work, outdoors work, type of working associates, etc.)			
a)	Interest in the job			
e)	Security afforded by this occupation			
f)	The opportunities for advancement	<b>.</b>		
g)	The opportunity to serve mankind			
h)	The regard that people have for others in this occupation			
1)	Other (specify)			

- 5. What helped you most to understand what your own qualifications may be for the work that you would like most to do? (Check one of the following)
  - a) Agricultural teacher or experiences in vocational agriculture\_\_\_\_\_
  - b) Someone else in the school or some other school experience\_\_\_\_\_
  - c) Someone outside of the school or some experience outside the school\_\_\_\_\_
- 6. What has been the source of most of your information about the requirements for the work that you would like most to do? (Check one of the following)
  - a) Agriculture teacher or study in vocational agriculture
  - b) Someone else in the school or some other school study
  - c) Some source outside the school
- 7. How do you think your high school training in vocational agriculture will be of value in the work that you would like most to do? (Check the space or spaces that apply to you)
  - a) It has helped me develop skills needed in this work\_\_\_\_\_
  - b) It has helped me develop attitudes needed in this work\_\_\_\_\_
  - c) It has helped me develop leisure time interests\_\_\_\_\_
  - d) It will be of little or no value in the work that I would like most to do\_\_\_\_\_
- 8. I have had \_\_\_\_\_ years of vocational agriculture.
- 9. I am \_\_\_\_ years old.
- 10. (Check the space that applies to you) My parents are full-time farmers\_\_\_\_\_, part-time farmers\_\_\_\_\_, renters or tenants\_\_\_\_\_; we do not live on a farm\_\_\_\_\_.

					Size	of <u>Esc</u>	h Saup	le			
Lower Percer	nt 20	25	30	35	40	45	50	60	70	28	<u>90</u>
10						15.8	14.7	13.3	12.2	11.2	10.5
20		26.0	23.6	21.7	20.1	18.8	17.3	16.1	14.8	13.8	13.0
30	30.9	27.4	25.0	23.1	21.5	20.2	19.2	17.4	16.0	15.0	14.1
40	30.8	27.6	25.3	23.4	21.9	20.6	19.6	17.9	16 <b>.6</b>	15.5	14.6
50	29.6	26.7	24.5	22.8	21.4	20.2	19.2	17.6	16.3	15.3	14.5
60	27.3	24.8	<b>2</b> 2.8	21.3	20.1	19.0	18.1	16.7	15.5	14.6	13.8
70	23.8	21.7	20.2	13.9	17.8	17.0	16.2	15.0	13.9	13.1	12.4
80		17.5	16.4	15.4	14.6	13.9	13.3	12.4	11.6	10.9	10.4
90						9 <b>•3</b>	<b>9.</b> 0	8.4	7.9	7.5	7.2

now Much a Percent Observed in One Sample Aust Differ From That Observed in Another for the Difference to be Statistically Significant

Size	of	Lach	Saaple

					Size (	or hadi	i saup.	le			
Lower Percei	nt 100	120	140	<b>16</b> 0	180	200	250	300	400	500	1000
10	9.9	8.9	8.2	7.6	7.1	6.7	5.9	5.3	4.5	4.C	2.8
20	12.2	11.0	10.2	9.5	ę.3	8.4	7.5	6.8	5.8	5.2	6.ز
<b>3</b> 0	13.4	12.2	11.2	10.5	9•9	9•3	8.3	7.6	6.5	5.8	4.1
4C	13.8	12.6	11.7	10.9	10.3	9.8	8.7	8.0	6.9	6.1	4.3
50	13.7	12.5	11.7	10.9	10.3	9.8	8.7	8.0	7.0	6.2	4.9
60	13.1	12.0	12.2	10.5	9.9	۶ <b>.</b> 4	8.4	7.7	6.7	6.0	4.3
<b>7</b> 0	11.9	10.9	10.2	9.5	9.0	8.6	7.7	7.1	6.2	5.5	4.0
80	9•9	9.2	8.6	8.0	7.6	7•3	6.5	6.0	5.3	4.7	3.4
90	6.9	6.4	6.0	5.7	5.4	5.1	4.7	4 <b>•3</b>	3.8	3.4	2.5

\*Daniel, Cuthbert, "Statistically Significant Differences in Observed Journal of Applied Psychology, Vol. 24, 1940, pp. 826-830. Percents".

(Based on 95% certainty that difference is not due to the size of the sample)

PROCEDURE IN CALCULATING CRITICAL RATIC, t, AND

DETERMINING SIGNIFICANCE (RELIABILITY)\*

1. Calculate the standard error (DE) of the differences between the two percentages ( $p_1$  and  $p_2$ ), expressed as a decimal fraction:

$$SE = \frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2} \qquad \text{where } q_1 = 1 - p_1$$
$$q_2 = 1 - p_2$$

2. Calculate the critical ratio, t

$$t = \frac{p_1 - p_2}{SE}$$

3. Determine significance at various levels from following table:\*

t	Chances in 100 (Probability)	
$\begin{array}{c} 0.0\\ 0.2\\ 0.4\\ 0.6\\ 0.8\\ 1.0\\ 1.2\\ 1.4\\ 1.6\\ 1.8\\ 1.96\\ 2.0\\ 2.1\\ 2.2\\ 2.3\\ 2.4\\ 2.5\\ 2.58\end{array}$	100 84 69 55 42 32 23 16 11 7 5 4.5 3.6 2.8 2.1 1.6 1.2 1.0	*Differences found were considered significant if protability was 5 out of 100.

\* Smith, G. Hilton, <u>A Simplified Guide To Statistics</u> (New York: Rinehart and Company, 1946), pp. 61-63.

# ROOM USE ONLY



#### MICHIGAN STATE UNIVERSITY

OF AGRICULTURE AND APPLIED SCIENCE . EAST LANSING

COLLEGE OF EDUCATION + DEPARTMENT OF VOCATIONAL EDUCATION

November 15, 1957

Dear fellow-teacher:

Your school has been selected as one that might contribute to a study of guidance in vocational agriculture. From this study it is hoped that a better understanding may be had of factors associated with the vocational choices of students of vocational agriculture. I would like to ask your cooperation on this project.

A part of the study consists of a survey, forms of which I am enclosing with this letter. There is one copy of a survey form for you and sufficient student survey forms for each freshman and each senior student. If you have both juniors and seniors together in one class, juniors may also fill out the form. You will note that there is a teacher form and a student form which form is filled out by both freshmen and seniors.

Your school will be identified by number only in the report of the findings. If you are interested in receiving a resume of the findings you may make a notation on your survey form, and when complete I'll send one to you.

Your cooperation in completing your form and having the freshmen and seniors complete theirs at the earliest convenient time is greatly appreciated. For your convenience a manila envelope, stamped and addressed is enclosed.

With best wishes for a successful school year. I am

Very truly yours,

William H. Knight

Ohio State University Columbus 10, Ohio February 14, 1958

Dear Fellow Teacher:

Your cooperation and that of your students in filling out the survey forms I recently sent you has been much appreciated. As you know, there is much interest in the guidance aspect of education today, and your aid has contributed to an understanding of some of the things that teachers of vocational agriculture are doing in guiding their students.

If you requested a summary of the study you will find it enclosed. A more detailed summary and analysis with some implications from the findings should be on file with the Agricultural Education Service at Michigan State University by this summer.

Very truly yours,

William H. Knight William H. Knight

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#### MICHIGAN STATE UNIVERSITY

OF AGRICULTURE AND APPLIED SCIENCE . EAST LANSING

COLLEGE OF EDUCATION . DEPARTMENT OF VOCATIONAL EDUCATION

November 15, 1957

To Teachers of Vocational Agriculture:

Teachers of Vocational Agriculture are key persons in the guidance of farm youth. They are constantly seeking more information and ideas so that they could be more effective in this role.

The study being made by Mr. William Knight is designed to get at some important information about the youth for whom teachers and others have responsibilities in regard to guidance. He is asking your cooperation in this important project.

I heartily commend this project and urge your cooperation in carrying it out. Through your assistance it is believed considerable help may later be made available to you and other teachers interested in doing a more effective job in guidance.

Yours sincerely,

H. M. Byram, Chairman Agricultural Education Service



