ABSTRACT

WORK EXPERIENCES OF MICHIGAN HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE AND THEIR RELATION TO OCCUPATIONAL AND EDUCATIONAL PLANS

by Homer Virtes Judge

Purpose. To determine relationships existing between five selected measures of work experience engaged in by high school students of vocational agriculture and their relation to: (1) selected student characteristics, (2) occupational plans and aspirations, and (3) educational plans and aspirations.

Method. Work experience schedules were developed and used to collect data from 421 high school students of vocational agriculture in grades nine through twelve from a dairy and general farming type of farming area in south central Michigan. Five selected measures of work experience were used in the study: (1) hours of farm work experience, (2) hours of farm work experience with owned projects, (3) composite farm work experience score, (4) hours of off-farm work experience, and (5) total hours of work experience. Chi-square was used to determine the existence of significant relationships.

Findings and Implications. Five student characteristics as follows: (1) class in high school, (2) place of residence (farm or non-farm), (3) farm operation by father,

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(4) farming status of father, and (5) size of farm were each found to be significantly related to a majority of five measures of work experience. Living on a farm, having a father who operated a farm, having a father who was a full-time rather than part-time farmer, and coming from a larger farm were all found to be related to increased measurements of farm work experience and decreased amounts of off-farm work experience.

Occupations which the 421 students in the study indicated that they were most apt to enter were as follows: farming - 110, non-farm agricultural occupations - 45, non-agricultural occupations - 156, and no occupational choice made - 110. Positive relationships were found between a majority of the five measures of work experience used and (1) choice between agricultural and non-agricultural occupations, (2) choice between farming and non-farm agricultural occupations, (3) certainty of occupational choice, and (4) occupational level of aspiration. Increased amounts of farm work experience and decreased amounts of off-farm work experience were related to choice of agricultural in preference to non-agricultural occupations and choice of farming in preference to non-farm agricultural occupations. Higher level of occupational aspiration (measured by the North -Hatt scale) was associated with larger amounts of farm work experience. None of the measures of work experience used were significantly related to students' choices

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Significant relations were not found between any of the five measures of work experience and (1) amount of consideration students had given to post-high school educational plans, (2) certainty of plans to participate in post-high school education, or (3) amount of post-high school education planned.

Some of the more important conclusions and implications of the study were:

1. Consideration needs to be given to meeting effectively the individual needs in agricultural education of students of varying backgrounds, opportunities, and interests.

2. The composite farm work experience score developed and used in this study appears to have value as an instrument for measuring work experiences of high school students of vocational agriculture.

3. Farm work experience with owned projects has a positive association with choice of agricultural occupations. Students from small farms whose fathers are only part-time farmers do have opportunities to gain work experience with projects they own.

4. High school students of vocational agriculture who spend large numbers of hours doing farm work are as likely to plan to continue their education beyond high school as students who do less work.

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5. Consideration should be given to off-farm as well as farm work experiences in planning work experience programs for high school students of vocational agriculture.

6. Opportunities of high school students to engage in work experiences are associated with environmental factors.

7. Consideration needs to be given to the effects on academic achievement of long hours of work engaged in by high school students of vocational agriculture.

WORK EXPERIENCES OF MICHIGAN HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE AND THEIR RELATION TO OCCUPATIONAL AND EDUCATIONAL PLANS

BY

Homer Virtes Judge

A THESIS

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College of Education

1962

THIS WORK IS DEDICATED TO MY WIFE, ANN AND

DAUGHTER, SHERRY WHOSE ASSISTANCE,

ENCOURAGEMENT, AND SACRIFICE

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CHAPTER I

INTRODUCTION

Statement of the Problem

The problem of this study was to determine the work experience engaged in by high school students of vocational agriculture and to determine the relationships which exist between the work experiences of these youth and their occupational and educational plans and aspirations.

Background of the Problem

Work experience has always been an integral part of high school vocational agriculture programs. Work experiences in the form of supervised farming programs in order to allow the students to put into practice facts learned in the classroom, are an important part of a program of vocational education in agriculture.

Occupational choice and adjustment are complex procedures influenced by many factors and made up of a number of decisions on the part of the individual. In addition to the students who prepare themselves for and enter farming as a life's occupation a number of students of vocational agriculture enter off-farm occupations on graduation from high school. These off-farm occupations may be either agricultural or non-agricultural in nature. The field of American agriculture is undergoing vast change. The amount

of agricultural work which is performed at off-farm locations is continually increasing. The role of high school programs in vocational agriculture is changing. Continuous adjustments will need to be made in high school programs of vocational agriculture if they are to meet the future needs of students who enroll in high school classes of vocational agriculture.

The Smith-Hughes Act of 1917, the original act providing for federal reimbursement to high school programs of vocational agriculture, specifies that public high schools in order to receive such reimbursement;

> shall provide for directed or supervised practice in agriculture, either on a farm provided by the school or other farm, for at least six months per year.[1]

High school youths enrolled in vocational agriculture often obtain work experience in agriculture in the form of supervised farming programs composed of productive enterprise projects, improvement projects and supplementary farm jobs carried out on farms operated by their families. Many vocational agriculture departments are placing increased emphasis on supplementing home farm work experience of high school students by greater utilization of farm placement and land laboratories as methods of providing

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[1]United States Congress. Public Laws of the United States of America Passed by the Sixty-Fourth Congress, 1915-1917, Volume 39, Part 1, Washington: United States Government Printing Office, 1917.

planned and supervised programs of farm work experience.

High school students of vocational agriculture often engage in work experiences in addition to supervised farming programs planned as part of their educational program in vocational agriculture. The nature of these work experiences may range from performance of farming operations to jobs almost wholly unrelated to farming. What effect may these work experiences have on occupational choice and educational plans of these high school students?

Many former students of vocational agriculture are engaged in occupations other than farming. Not all students presently enrolled in high school vocational agriculture classes will necessarily have well formulated plans to enter farming. The vocational goals of high school students, even though they may be engaged in the study of vocational subjects, are not always fully formulated. Vocational courses at the high school level can play an important role in occupational guidance. Occupational choice and educational plans of high school students are important from the standpoint of student motivation. During recent years many high school departments of vocational agriculture have been placing an increasing emphasis on the fact that there is a wide variety of agricultural jobs, in addition to farming, which their students may enter following high school graduation. Much emphasis has been placed on work experience, in the

form of supervised farming programs, in vocational agriculture as a means of preparation for farming. An equal amount of consideration has not been given to other work experiences in which high school students of vocational agriculture may engage.

Supervised farming programs are commonly used as a part of educational programs in vocational agriculture. Farming programs have been the means by which many boys have developed the resources with which to start farming. Not all students enrolled in high school classes of vocational agriculture will have an opportunity to successfully establish themselves in a farming occupation. Neither are the work experiences of high school students limited to work of the farm. Many of these students engage in non-farm work experiences. Information is needed concerning the total work experiences of high school vocational agriculture students.

What relationships exist between work experiences of high school vocational agriculture students and their educational and occupational plans? A determination and understanding of relationships which exist between the work experiences engaged in by high school students of vocational agriculture and occupational choices and educational plans of these students would enable workers in the field of agricultural education to plan more effective educational

programs to meet changing needs. An understanding of these relationships should help develop programs which will better meet the unique needs of individual students. Such an understanding would also help clarify problems encountered in helping individual students in developing interests, attitudes, and abilities to effectively aid them in making and carrying out their post-high school educational and occupational plans.

Purposes of the Study

The principal purposes of this study were:

(1) To determine work experiences, occupational choices, and educational plans of high school students of vocational agriculture.

(2) To determine some of the variable factors which are related to work experiences engaged in by high school students of vocational agriculture.

(3) To determine the relationships which exist between work experiences of high school students of vocational agriculture and their occupational plans.

(4) To determine the relationships which exist between work experiences of high school students of vocational agriculture and

their post-high school educational plans.

Hypotheses

The first of the four principal purposes of the study listed above was fulfilled through a description of the factors involved. In order to realize purposes number two, three, and four the following three general hypotheses were developed:

General Hypothesis Number One

Work experiences of high school students of vocational agriculture are related to the following student characteristics: (1) class in high school, (2) place of residence, (3) father's operation of a farm, (4) father's time spent farming, and (5) size of home farm.

General Hypothesis Number Two:

Occupational plans and aspirations of high school students of vocational agriculture are related to the following measures of work experience: (1) hours of farm work experience, (2) hours of farm work experience with owned projects, (3) composite farm work experience score, (4) hours of off-farm work experience, and (5) total hours of work experience.

General Hypothesis Number Three:

Post-high school plans of high school students of vocational agriculture are related to the following measures of work experience: (1) hours of farm work experience, (2)

hours of farm work experience with owned projects, (3) composite farm work experience score, (4) hours of off-farm work experience, and (5) total hours of work experience.

In testing the first general hypothesis of the study the following measures of work experience were used:

(1) Hours of farm work experience
(2) Hours of farm work experience with owned projects
(3) Composite farm work experience score
(4) Hours of off-farm work experience
(5) Total hours of work experience

In testing general hypothesis number two the following classifications of occupational choices and aspirations were used:

(1) Whether or not an occupational choice had been made
(2) Occupational choice (classified according to farming, non-farm agricultural, or non-agricultural occupation)
(3) Certainty of occupational choice
(4) Occupational level of aspiration (measured by the North-Hatt scale)

In testing general hypothesis number three the following classifications of post-high school plans were used:

(1) Amount of post-high school education

planned

(2) Degree of consideration given to educational plans

(3) Certainty of educational plans

Scope and Limitations of the Study

This study had as its principal purpose a study of work experiences of high school students of vocational agriculture and relationships existing between these work experiences and the students' occupational and educational plans. It is recognized that factors which affect decisions of people, such as determination of occupational choice and educational plans are many and varied. It was necessary to limit this study to a few selected measures of work experience of high school students of vocational agriculture and their relation to selected characteristics of occupational and educational plans.

The use of an instrument such as the work experience schedule developed and used in this study involves certain interpretation on the part of both the individual student who completes it and the individual who classifies and compiles the data.

This study was further limited to a specific geographic area in south central Michigan made up of the counties of Ionia, Clinton, Shiawassee, Eaton, Ingham, Livingston, Jackson, and Washtenaw. This limitation of

area allowed the study to be conducted in a single type of farming area. The eight county area included in this study has been classified by the department of Agricultural Economics of Michigan State University as a dairy and general farming area.[2] This limitation of area also permitted personal visits to each of the high school departments of vocational agriculture included in the study. A random sample of ten high school departments of vocational agriculture was taken from the list of all high school departments of vocational agriculture in the area selected for the study after those schools where known teacher changes would occur during the coming summer were eliminated from the list. This study included a total of four hundred twenty-one students of vocational agriculture from these ten high schools.

This study is also limited in relation to time. Information in regard to plans, choices, and decisions of the students of vocational agriculture is limited to the specific time at which these students completed the work experience schedules used in the study.

Definition of Terms

The following definitions are given in order to clarify terms frequently used in this study.

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[2]Elton B. Hill and Russell G. Mawby, Types of Farming in Michigan, Michigan Agricultural Experiment Station Special Bulletin 206, (East Lansing, Michigan, 1954) P. 26.

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Chapter III.

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Vocational Agriculture - This term applies to high school vocational education programs in agriculture which are eligible for reimbursement under terms of the National Vocational Education Acts.

Full-Time Farmer - Refers to a person who spends a majority of his working time in the operation of a farm.

Part-Time Farmer - Refers to a person who operates a farm but spends more time at another job than in the operation of the farm.

Agricultural Occupations - Refers to all occupations which require a knowledge of farming in the performance of duties.

Non-Farming Agricultural Occupations - Refers to all agricultural occupations other than farm operation.

On-Farm Work - Refers to all work performed on a farm in the normal course of farm operation.

Off-Farm Work - Refers to all work which is performed at a location other than on a farm.

Owned Projects - Refers to farm enterprises operated by the student in which he has an ownership interest.

Composite Farm Work Experience Score - Refers to a composite score developed in this study as a measure of farm work experience. Details of scoring are given in Chapter III.

Occupational Level of Aspiration - Refers to the

occupational prestige rating, according to the North-Hatt scale, of the occupation the student listed as the one he is most apt to enter.

Chapter II which follows presents a review of literature. A review of previous investigations and writings related to this study was made. Methods, techniques, and findings of these studies were examined to lend direction and continuity to this study as well as to discover the results of previous investigations on the same and closely related subjects.

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CHAPTER II

REVIEW OF LITERATURE

This chapter presents a review of literature in areas related to this study. It was hoped that this review of literature would lend direction and clarification of purpose to the present study as well as present findings of other researchers in the general area of the study. This review of literature is presented in three main parts to coincide with the three general areas of this study: (1) work experience of youth, (2) occupational choices and aspirations, and (3) educational plans and aspirations.

Work Experiences of Youth

Studies which measure the amount of work done by high school students of vocational agriculture are rather limited. Straus in a study of eleventh and twelfth grade boys in Wisconsin found that farm boys were assigned work roles earlier in life and spent more time working than non-farm boys. He reported that most farm boys do not have outside employment, but they work at least twenty hours on the family farm per week. Sixty-one per cent of the farm boys in this study were found to be working twenty or more hours on the home farm and only four per cent of them were found to be doing no work on the home

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farm.[1] Sutherland and Thompson in a state-wide study in California found that eighty per cent of high school vocational agriculture students were obtaining some form of farm work experience. Another ten percent were obtaining work experience in the field of agriculture but not in farming. The remaining ten per cent of the high school vocational agriculture students were receiving no agricultural work experience.[2]

Couch used man hours of labor spent by students on their supervised farming programs as a measure of size and scope of their programs. He found that high school vocational agriculture students from families who owned their farms spent 1,091 man hours per year on their supervised farming programs. This was much more labor involved in farming programs by students from owner families than from tenant families. Students from tenant families spent only 229 man hours of labor per year on their supervised farming programs. He also found a similar relation between

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[1]Murray A. Straus, "Work Roles and Financial Responsibility in the Socialization of Farm, Fringe, and Town Boys," Rural Sociology, Volume 27, Number 3, (September 1962) pp. 257-274.

[2]Sidney Sampson Sutherland and Orville Eugene Thompson, "Characteristics of the Pupils Enrolled in the All-Day Classes in Vocational Agriculture in California," (Unpublished Non-Thesis Study, University of California, Davis, California, 1955), Summaries of Studies in Agricultural Education, Supplement No. 9, Bulletin 263, (Washington: Government Printing Office, 1956), p. 31.

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farms operated on a full or part-time basis and amount of work done by the students in carrying out their supervised farming programs. Students from families who operated farms full-time spent approximately five times as many hours as students from families operating farms only part-time. He found that size of the farming operation on the home farm was a vital factor affecting the amount of time devoted to student's supervised farming program[3]

Fuller in a study in New York state found that farming programs of junior and senior pupils enrolled in agriculture three (junior year) and four (senior year) were of sufficient size and scope to provide experience that could be related to the whole farm in all areas except farm records.[4]

Deyoe, in a Michigan study, found that amount of farm work on the home farm while attending high school was associated with farming status of the young farmer in his study. He reported that performing considerable work on the home farm while attending high school was significantly associated with likelihood of farming and that young men in

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[3]Kenneth Odell Couch, "A Study of the Effect of Home and Farm Conditions Upon the Supervised Farming Program of Third Year Vocational Agriculture Students in Spartanburg County, South Carolina," (Unpublished Master's Thesis, Clemson College, Clemson, South Carolina, 1958)

[4]Gerald R. Fuller, "The Characteristics of Farming Programs of Junior and Senior Pupils Enrolled in Vocational Agriculture 3 and 4 in New York State for the School Year 1957-58" (Unpublished Master's Essay, Cornell University, Ithaca, New York, 1960)

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other types of farming performed considerably more work on the home farms while attending high school as compared with young men farming as laborers.[5]

Youmans, in a study of sixteen and seventeen year old rural youth from low income farming areas in Kentucky, found that about one-third of the boys worked for pay during their last year of school. Socio-economic status didn't appear to affect the number of these youth who were working for pay. Approximately equal proportions of the students from low, middle and high socio-economic status families reported working for pay. No significant differences were found in this study between farm and non-farm youth in either the amount of paid work done or amount of money earned during the year.[6]

The importance of work experience was stressed by Anderson who concluded, from a study of 1,242 high school students in rural community high schools of Pennsylvania, that the opportunity to experience the essential elements of a vocation was the most important influencing factor in

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[5]George Percy Deyoe, Young Men From Michigan Farms - A Study of Farm Reared Men Who Attended Certain Michigan High Schools Which Maintain Departments of Vocational Agriculture, State Board of Control for Vocational Education, Bulletin 256, (Lansing, Michigan, 1939) pp. 10 - 12.

[6]E. Grant Youmans, The Educational Attainment and Future Plans of Kentucky Rural Youth. Kentucky Agricultural Experiment Station Bulletin Number 664, (Lexington, Kentucky, 1959) pp. 25 - 26.

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the development of vocational interest.[7]

Farm work experience was found by Butler to be important in agriculturally related occupations. He found farm experience required of employees for approximately sixty-eight per cent of the jobs in agriculturally related occupations. Farm experience with no additional training was sufficient for twenty-eight per cent of the jobs with forty per cent of the jobs also requiring high school vocational agriculture training in addition to farm work experience.[8]

Edlefsen, in a study of students in four high school districts in the state of Washington, found that the reason most frequently mentioned by the students for their choice of occupation was actual work experience in the field of their choice.[9]

Hensel found that experience on the job was the

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[7]Clarence Scott Anderson, "Vocational Interests of Rural High School Pupils in Pennsylvania. (Unpublished Non-Thesis Study, Pennsylvania State College, State College, Pennsylvania, 1938) Summaries of Studies in Agricultural Education, Supplement Number 1, Bulletin 180, (Danville, Illinois, Interstate Printing and Publishing Company), p. 27.

[8]Jimmy Joe Butler, "Some Guidance Concerns in Vocational Agriculture." (Unpublished Master's Thesis, University of Tennessee, Knoxville, Tennessee, 1959), Summaries of Studies in Agricultural Education, Supplement Number 13, Bulletin 282, (Washington: Government Printing Office, 1960), p. 147.

[9]John B. Edlefson and Martin Jay Crowe, Teen-agers' Occupational Aspirations, Washington Agricultural Experiment Station Bulletin 618, (Pullman, Washington, 1960) pp. 7 - 8.

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source of information having the greatest influence on the occupational choices of farm-reared senior boys who chose farming and non-professional occupations. Books and pamphlets tended to be a more important source of information for the senior boys who selected professional occupations.[10]

Nearing concluded from a study of vocational agriculture students in New York that farms operated on a full-time basis provided adequate opportunity for a boy to learn farming whereas farms operated part-time presented practically no opportunity.[11]

Gerdeman in a study of farming programs of vocational agriculture students, from farms where the families were full-time and part-time operators, concluded that the teacher of vocational agriculture should not expect his students from farms operated part-time to complete as many production projects, grow as many acres of crop projects, work as many hours on their projects, or make as much money from their supervised farming programs as the students from full-time farms.[12]

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[10] James W. Hensel, "High School Influences on the Occupational Choices of Farm Reared Senior Boys," Agricultural Education Magazine, Volume 32, Number 11(May, 1960) pp. 256.

[11] Frank H. Nearing, "Bases For Making Changes in Programs of Vocational Education in Agriculture in Central Rural Schools in New York State, (Unpublished Doctor's Thesis, Cornell University, Ithaca, New York, 1954)

[12] Earl John Gerdeman, "Farming Programs of Selected High School Students of Vocational Agriculture From Full-Time and Part-Time Farms in Ohio" (Unpublished Master's Thesis, Ohio State University, Columbus, Ohio, 1955)

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Fortune found in a study of vocational agriculture students at East Bend, North Carolina that these students were making only a few of the decisions regarding the carrying out of practices in their supervised farming programs as indicated by their opinions and the amount of specific practices which were followed in their enterprises.[13]

Hemp, in a study of developmental tasks of present and prospective farmers in Illinois, found the young-farmer level to be the one at which the greatest number of responsibilities was assumed. He found that high school students of vocational agriculture were assuming responsibilities but to a considerably lesser extent than young farmers. He reported that the first year of farming was the year in which the farmers in his study had assumed the most new responsibilities. A majority of the cooperating teachers of vocational agriculture in his study reported that most high school boys were "willing and able" to learn something about thirty-six per cent of the activities in his study and that a majority of the young farmers were "willing and and able" to learn something about sixty-one per cent of

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[13]Charles Ware Fortune, "A Study of Who Makes the Decisions Relative to Supervised Farming Programs of Students of Vocational Agriculture." (Unpublished Master's Problem, North Carolina State College, Raleigh, North Carolina, 1961)

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Marinaccio, in a study of work experiences and I.Q. of high school students found that 251 out of a total of 629 boys, forty per cent, worked more than two hours per day with their fathers at a common task. He found the boys with abundant work experience with their fathers had significantly lower mean I.Q.'s than the boys with little or no work experience with their fathers. No cause and effect relationships were shown between lower mean I.Q.'s and larger amounts of work experience.[15]

Occupational Plans and Aspirations

Theories of Occupational Choice Choice of an occupation is one of the most important decisions a person makes. It is generally agreed that occupational choice is not completed at one specific time but is more or less a continuous process. Shartle describes the choice of a vocational career as a long process rather than a single incident. He also describes vocational decisions as often being compromises between the aspirations and preferences

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[14]Paul E. Hemp, "Developmental Tasks of Prospective and Present Farmers in a Selected Illinois Community," (Unpublished Doctor's Thesis, University of Illinois, Urbana, Illinois, 1955) pp. 105-107.

[15]Lawrence V. Marinaccio, "Relationships Between Work Experience and Intelligence Quotients of Secondary School Pupils," (Unpublished Doctor's Thesis, University of Conneticut, Storrs, Conneticut, 1961)

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Ginzberg draws the conclusion that occupational choice is a developmental process which is not a single decision but a series of decisions over a period of years. Each step in the process has a meaningful relation to those which proceed and follow it. He generalizes further that the process of occupational choice is largely irreversible as later decisions are limited by previous decisions. His theory also includes compromise as an essential aspect of every choice. He divides the process of occupational decision making into three periods: fantasy, tentative, and realistic choices. These three periods normally extend from pre-adolesence to early adulthood.[17]

The realization that occupational choice and adjustment is a continuous process is emphasized by Seibert as follows:

> Guidance workers have come to realize that occupational adjustment is a continuous life long process and that it is a matter of growing into an occupation.

He also refers to the inadequacy of an early "philosophy of guidance" by which it was considered a matter of serious consequence if a pupil had not reached a voca-

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[16] Caroll L. Shartle, Occupational Information, Its Development and Application, (Englewood Cliffs, New Jersey, Prentice-Hall, Inc. 1959) pp. 3-4.

[17] Eli Ginzberg, and Others, Occupational Choice, An Approach to a General Theory. (New York: Columbia University Press, 1951) pp. 26-72.

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tional decision by the time he entered senior high school.[18]

Super, in his theory of occupational behavior, suggests that: (1) people differ in abilities, interests, and personalities, (2) each person is qualified by virtue of these characteristics for a number of occupations, and (3) the process of vocational development is essentially that of developing and implementing a self concept through the process of compromise.[19]

Anderson attributed the degree of permanency of vocational interest remaining as high as it does to the fact that interests of each pupil go through a genetic development within a relatively narrow range of vocations.[20]

Occupational Choices of Former Vocational Agriculture Students Many follow up studies of occupations of former students of vocational agriculture have been made. Kitts in 1957 reviewed and compiled results from sixty-six studies made in twenty-five different states. He found that about forty-seven per cent of all former students of vocational agriculture included in these studies were

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[18]Earl W. Seibert, "Growing Into an Occupation," The School Review, Volume 1, Number 9, (November, 1942) pp. 644-650.

[19]Donald E. Super, "A Theory of Vocational Development," American Psychology, Volume 8 (1953), pp. 185-190.

[20]Anderson, loc. cit.

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engaged in farming.[21] A number of researchers have presented data to indicate that approximately one half of former students of vocational agriculture were engaged in farming and occupations related to agriculture. Wyse in a study of former students found approximately forty-one per cent farming, eight per cent in occupations related to agriculture and fifty per cent in occupations not related to agriculture.[22]

Wood in a follow-up study of former vocational agriculture students reported an almost identical percentage of former students engaged in agricultural occupations with forty per cent engaged in farming and almost eight per cent engaged in related occupations.[23]

It appears that boys who live on farms while they are enrolled in vocational agriculture are much more apt to become farmers than boys who are urban residents. Kitts

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[21]Harry W. Kitts, A Résumé of Studies on Occupational Status of Former Students of Vocational Agriculture," (Unpublished Non-Thesis Study, University of Minnesota, St. Paul, Minnesota, 1957), Summaries of Studies in Agricultural Education, Supplement Number 11, Bulletin 272, (Washington: Government Printing Office, 1958), p. 43.

[22]Jacob F. Wyse, "The Occupational Status of Former Students of Vocational Agriculture of Johnston High School, Johnston, South Carolina," (Unpublished Master's Thesis, Clemson College, Clemson, South Carolina, 1954)

[23]Eugene S. Wood, "A Followup Study of Former Students of Vocational Agriculture in Illinois," (Unpublished Doctor's Thesis, University of Missouri, Columbia, Missouri, 1958) Summaries of Studies in Agricultural Education, Supplement Number 13, Vocational Division Bulletin 282, (Washington: Government Printing Office, 1960) p. 85.

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reported that approximately fifty-five per cent of former students of agriculture who lived on farms while enrolled in vocational agriculture were farming compared to only eleven per cent of the boys who were urban residents at the time of their enrollment in vocational agriculture.[24] Wyse found that one hundred per cent of the sixty-nine former students of vocational agriculture in his study who were farming had lived on farms at the time they were taking vocational agriculture in high school.[25] Bachman, in a study of former students of vocational agriculture at Holdrege, Nebraska, reported that seventy-five per cent of the graduates whose fathers were farming had remained in farming and that graduates whose parents were not on a farm tended to find employment in other occupations.[26]

Size and ownership of home farms appear to have influenced former students of vocational agriculture to farm. Both Bachman[27] and Kitts[28] reported size of farms and ownership by parents positively associated with former students who were farming.

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[24]Kitts, loc. cit.

[25]Wyse, loc. cit.

[26]Vernon W. Bachmann, "Factors Influencing Occupational Choices of Vocational Agriculture Graduates of Holdrege High School" (Unpublished Master's Thesis, University of Nebraska, Lincoln, Nebraska, 1957)

[27]Ibid.

[28]Kitts, loc. cit.

Gretebeck also reported finding farm ownership by parents related to establishment in farming of former high school students.[29] Both Harrington [30] and Wyse[31] found that larger farms were significantly associated with the choice of farming as an occupation by former students of vocational agriculture.

Wood[32] and Bachman[33] both reported that more training in vocational agriculture in high school was related to choice of farming by former students. However, Harrington reported from his study that he found little relationship between amount of vocational agriculture studied and occupations chosen.[34]

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[29]Sanford Hilman Gretebeck, "A Career Pattern Study of Seventy-six Youth Farming Who Were 1957 High School Graduates in Five Selected Counties in Wisconsin," (Unpublished Doctor's Thesis, University of Wisconsin, Madison, Wisconsin, 1960) Dissertation Abstracts, Volume 21 Number 6, December 1960, (University Microfilm Inc., Ann Arbor, Michigan, 1960) p. 1422.

[30]Ray A Harrington, "A Study of the Occupational Distribution of Former Pupils in Vocational Agriculture in Camden, New York, Central School and the Relationship of Such Distribution to Selected Background Factors," (Unpublished Master's Problem, Cornell University, Ithaca, New York, 1954) Summaries of Studies in Agricultural Education, Supplement Number 7, Vocational Division Bulletin 253, (Washington: Government Printing Office, 1954) p. 26.

[31]Wyse, loc. cit.

[32]Wood, loc. cit.

[33]Bachman, loc. cit.

[34]Harrington, loc. cit.

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White, in a study of former students of vocational agriculture who were farming or ranching in La Salle County, Texas, reported from his data that farm enterprises carried by boys in high school had a definite bearing on enterprises carried on as the lifetime farming occupation.[35]

Occupational Choices of High School Youth A number of studies have been made which recorded the occupational choices of high school youth. Figures on percentages of high school students of vocational agriculture who expect to become farmers seem to center around the fifty per cent mark. Sutherland and Thompson reported that fifty per cent of the high school students in their California study planned to farm and that an additional fifteen to twenty per cent planned to enter other agricultural work.[36] Knight, in a study of high school vocational agriculture students in Michigan, reported that one-half of both freshmen and seniors aspired to and expected to enter farming.[37]

Krebs, in a state wide study in Illinois in 1959,

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[35]Deryl White, "A Study of the Relationship Between Certain Boys' Supervised Farming Programs and Their Present Farming or Ranching Occupations in La Salle County, Texas," (Unpublished Master's Problem, Texas A. & M. College, College Station, Texas, 1953) Summaries of Studies in Agricultural Education. Supplement Number 8, Vocational Division Bulletin 256, (Washington: Government Printing Office, 1955) p. 100.

[36]Sutherland and Thompson, op. cit., p. 31.

[37]William Herbert Knight, "Factors Associated With The Vocational Choices of High School Students of Vocational Agriculture," (Unpublished Doctor's Thesis, Michigan State University, East Lansing, 1958) p. 72.

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reported that forty-four and a half per cent of the vocational agriculture students had chosen the occupation of farming.[38] Fuller, in a New York study of third and fourth year vocational agriculture students, reported that fifty-eight per cent of the group of students studied by him intended to farm.[39]

Hensel reported that 91 out of a group fo 216 farm-reared senior boys, (43 per cent) gave farming as their first occupational choice.[40] Straus reported that one-third of a group of farmers' sons gave farming as their preferred occupation.[41]

Thompson reported, from a study conducted in twenty-seven California high schools in 1961, that most high school vocational agriculture students had made at least a

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[38]Alfred H. Krebs, "Future Plans of Vocational Agriculture Seniors in Illinois High Schools, Classes of 1959," (Unpublished Non-Thesis Study, University of Illinois, Urbana, Illinois, 1959) Summaries of Studies in Agricultural Education, Supplement Number 14, Vocational Division Bulletin 291, (Washington: Government Printing Office, 1961) p. 30.

[39]Gerald R. Fuller, "The Characteristics of Farming Programs of Junior and Senior Pupils Enrolled in Vocational Agriculture 3 and 4 in New York State for the School Year 1957-58," (Unpublished Master's Essay, Cornell University, Ithaca, New York, 1960)

[40]Hensel, op. cit. p. 255.

[41]Murray A. Straus, "Personal Characteristics and Functional Needs in the Choice of Farming as an Occupation," Rural Sociology, Volume 21, Number 3, (September, 1956) p. 258.

tentative vocational choice. He reported that between fifty and sixty per cent of the students enrolled in vocational agriculture were planning to enter careers in agriculture. He found that more of the students who planned to enter agriculture had fathers who were engaged in agriculture than did those students who planned to enter non-agricultural vocations.[42]

Cornett found in a study of vocational training choices of high school sophomore and junior boys that ninety-two per cent of them preferred some type of vocational training in high school. He found that sixty-four per cent of the sons of full-time farmers desired vocational training in agriculture compared with forty-two and a half per cent of the sons of part-time farmers and only eight per cent of the boys from non-farm families. He grouped fathers' occupations and boys' training choices into thirteen areas. He found that sixty-two per cent of the sons of fathers in agriculture desired vocational training in the same area as their father's occupation.[43]

Butler reported from a study of guidance concerns in vocational agriculture that having made an occupational

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[42] O. E. Thompson, "What Are the Plans of Vocational Agriculture Students?", Agriculture Education Magazine, Volume 34, Number 12, (June, 1962) pp. 276-278.

[43] Dallas Lee Cornett, "Vocational Training Choices of Sophomore and Junior Boys in the Marios County Rural High Schools", (Unpublished Master's Thesis, Ohio State University, Columbus, Ohio, 1957)

choice was not a requirement for high school vocational training. He reported that ninety per cent of the vocational agriculture teachers in Tennessee help students develop skills and abilities helpful in occupations other than farming.[44]

Cushman in a study of pre-vocational training of seventh and eighth grade boys in Vermont presented evidence to indicate that such pre-vocational training does not greatly affect occupational choice as the former students of this pre-vocational training program entered the several major groups of occupations in about the same ratio as the total adult male Vermont labor force.[45]

Hensel also reported no difference between the occupational choices of senior boys who had received vocational agriculture training and senior boys who had not received vocational agriculture training.[46]

Reports of previous research do not agree on the importance of such factors as place of residence, size of farm, and family ownership of farm in influencing occupational plans of youth.

Griffiths found that one of the factors which

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[44] Butler, loc. cit.

[45] Robert Harold Cushman, "In What Occupations Do Vermont Junior-Senior High School Boys Need Pre-Vocational Experiences?" (Unpublished Master's Thesis, University of Vermont, Burlington, Vermont, 1952)

[46] Hensel, op. cit., p. 255.

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influenced occupational plans of farm youth was size of farm.[47] Apps reported no significant difference between either size of farm or farm ownership by parents and the number of boys who chose farming. He found lower educational attainment of fathers associated with the son's choice of farming as an occupation. No relationship was found between mother's educational level and occupational choice of son.[48]

Hensel found no relation between choice of farming as an occupation and farming status of parents.[49] Burchinal reported that boys who plan to farm had lower grades and less often planned for education beyond high school than did those boys who did not plan to farm.[50]

Haller, in a study of farm boys in Michigan in 1957,

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[47]John W. Griffiths, "Educational and Occupational Plans of Male Farm Youth at the Ninth Grade Level," (Unpublished Master's Thesis, University of Wisconsin, Madison, Wisconsin, 1958) Summaries of Studies in Agricultural Education, Supplement Number 13, Vocational Division Bulletin 282 (Washington: Government Printing Office), p. 42.

[48]Jerold W. Apps, "Characteristics of Youth Choosing Farming as an Occupation in Five Selected Counties in Wisconsin," (Unpublished Master's Thesis, University of Wisconsin, Madison, Wisconsin, 1957) Summaries of Studies in Agricultural Education, Supplement Number 11, Vocational Division Bulletin 272, (Washington: Government Printing Office, 1958) p. 5.

[49]Hensel, op. cit., p. 255.

[50]Lee G. Burchinal, "What's Your Son Going to Do?" The Iowa Farm Science, Volume 14, Number 9, (March, 1960) p. 13.

found that the boys who chose not to farm tended to have higher levels of educational and occupational aspiration and were more flexible regarding their occupational preferences than were the boys who planned to farm. He also found that the parents of boys who planned not to farm tended to have higher levels of educational and occupational aspiration for their sons than did parents of those boys who planned to farm. No difference was found in measured intelligence of the boys in this study between those who chose to farm and those who chose not to farm. [51]

Straus found no significant differences between personal and social characteristics of farmers' sons who chose farming and those who chose non-farm occupations in a study of occupational choices of farmers' sons in Washington. He did find that the boys in his study who expressed a preference for farming were much more certain of entering the preferred occupation and had not considered alternative occupations to so great an extent as the boys who chose non-farming occupations. He concluded from his study:

> There is little or no difference between the physical and intellectual ability of farmers' sons in the state of Washington who desire to farm and farmers' sons who express a preference for non-farm occupations. [52]

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[51] A. O. Haller, "Planning to Farm: A Social Psychological Interpretation," Social Forces, Volume 37, Number 3, (March, 1959) pp. 263-268.

[52] Straus, op. cit. (Rural Sociology, September, 1956) pp. 264-266.

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Slocum found in a study of college students at State College of Washington that fifty-six per cent of all the students who had made an occupational choice considered personal interest developed through actual experience in the selected field as the most important reason for their choice of occupational field.[53]

Occupational Aspirations of Youth Slocum, in a study of high school seniors, found that occupational aspirations were generally high in relation to current employment possibilities. Many of the seniors had apparently taken into account the fact that they probably would not be able to attain their desired goals and reported that they expected to enter lower status occupations than those preferred. Farm boys plans differed from non-farm boys in that a much higher proportion were planning to enter the occupation of their father. However more farm boys were planning to enter non-farm than farm occupations. About two-thirds of the senior boys had narrowed their occupational preference to a single occupational field.[54]

Edlefson and Crowe, in a study of the occupational aspirations of seventh through twelfth grade boys and girls

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[53]Walter L. Slocum, Occupational Planning by Undergraduates at the State College of Washington, Washington Agricultural Experiment Station Bulletin 547, (Pullman, Washington, 1954), pp. 4-12.

[54]Walter L. Slocum, Occupational and Educational Plans of High School Seniors From Farm and Non-Farm Homes. Washington Agricultural Experiment Station Bulletin 564, (Pullman, Washington, 1956), pp. 31-32.

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in Washington, found that most boys and girls prefered higher and middle status jobs, most children whose fathers were in higher and middle status jobs preferred to enter the same occupation as their fathers, and that many students who preferred higher status jobs did not expect to get them. He concluded in regard to the effects of residence on occupational aspiration:

> Residence may be an important factor in the occupational outlook of students. Students living on farms preferred a type of work with things. Students living in towns preferred work involving people. Residence apparently does not affect preference for work that principally involves ideas.[55]

Youmans, in a study of sixteen and seventeen year old youths from a low income farming area in Kentucky, found that the socio-economic status of a youth's family was a significant factor in his occupational aspirations. The lower status youths tended to choose public work, a term meaning almost any kind of non-farm wage work, farming, and factory work. The higher status youths tended to make a choice of clerical work. He found that farm youths differed very slightly from non-farm youths in their occupational aspirations although a slightly larger percentage of farm boys than of non-farm boys selected farming as their occupational choice. One-fifth of all the boys included in this study

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[55] John B. Edlefson and Martin Jay Crowe, Teen-Agers' Occupational Aspirations, Washington Agricultural Experiment Station Bulletin 618, (Pullman, Washington, 1960) p. 22.

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aspired to become farmers.[56]

Haller and Sewell found from a study of students who were completing their twelfth year of school that there was no significant difference between the levels of non-farm occupational aspirations of farm and non-farm boys. He found that boys living on farms desired to enter high level jobs with the same frequency as did non-farm males. Non-farm occupations were the object of this study and it excluded all boys who were planning to go into farming.[57]

Sewell and Haller in a study of non-farm senior boys from high schools in Wisconsin found a positive relationship between high occupational aspiration and both social status and intelligence. They found that each of these two factors (social status and intelligence) influenced the occupational aspirations of the group of senior non-farm boys in their study when the effects of the other variable were ruled out.[58]

Haller and Wolff in a study of seventeen year old boys from farm, village, and urban homes attending schools in Lenawee County, Michigan in 1957, found that the boys

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[56] Youmans, op. cit., pp. 40-41.

[57] Archie O. Haller and William H. Sewell, "Farm Residence and Levels of Educational and Occupational Aspiration." The American Journal of Sociology, Volume 62, Number 4, (January, 1957) pp. 407-411.

[58] William H. Sewell and Archie O. Haller, "Social Status and Educational and Occupational Aspiration." American Sociological Review, Volume 22, Number 1, (February 1957) pp. 67-73.

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from farms scored lowest on intelligence, and also on occupational and educational aspirations in comparison with the other two groups of boys.[59]

Burchinal reported from a study of farm, small town, and city boys in Iowa that he found farm residence negatively correlated with level of occupational aspiration. In both the tenth and twelfth grade he found farm boys had the lowest levels of occupational prestige aspirations, small town boys were in the middle, and urban boys tended to have the highest levels of occupational prestige aspiration. The author cautioned that inference drawn from his study should be limited to comparisons of farm and rural non-farm and small-town males living in an area of low industrialization with males from a metropolitan community.[60]

Krippner found a positive relationship between level of occupational choices of junior high school boys and their fathers' occupational classifications. He found a positive correlation significant at one per cent level between the occupational levels of the students' preferred vocations and the occupational levels of their fathers' jobs. The Roe occupational classification was used to determine both

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[59] Archie O. Haller and Carole Ellis Wolff, "Personality Orientations of Farm, Village and Urban Boys," Rural Sociology, Volume 27, Number 3, (September, 1962) pp. 275-293

[60] Lee G. Burchinal, "Differences in Educational and Occupational Aspirations of Farm, Small-town, and City Boys." Rural Sociology, Volume 26, Number 2 (June, 1961) pp. 107-121

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level of students' preferred vocations and fathers' jobs.[61]

Bjoraker concluded, from his study of junior and senior high school vocational agriculture students, that the boy's overall attitude toward farming as an occupation and a way of life was probably more important in relationship to his desire to remain on the farm than the specific personal, farm, and family factors considered in his study.[62]

Educational Plans and Aspirations

There are not nearly as many studies to be found involving future education engaged in or educational plans beyond high school for students of vocational agriculture as there are for occupations engaged in by former students and occupational plans of students.

There is quite a wide variation to be found between the groups of high school students which have been studied in regard to educational plans and aspirations. Krippner found that eighty-five per cent of the girls and ninety-one per cent of the boys in his study, of seventh and eighth grade students from an upper middle class suburb of Chicago,

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[61]Stanley Curtis Krippner, "A Study of Vocational and Educational Interests of Junior High School Students," (Unpublished Doctor's Thesis, Northwestern University, 1961) Dissertation Abstracts, Volume 22, Number 8, (February, 1962, University Microfilm, Inc., Ann Arbor, Michigan) pp. 2691-2692.

[62]Walter T. Bjoraker, "Factors Associated With Vocational Agriculture Students' Desire To Remain on the Farm," Agricultural Education Magazine, Volume 26, Number 1, (July, 1953) p. 22.

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wanted to attend college. Even larger percentages than this responded that their parents wanted them to attend college.[63]

Sutherland and Thompson, in a previously mentioned California study, reported that forty-five per cent of the high school vocational agriculture students in their study planned to attend at least two years of college. Only thirty-three per cent of this group definitely planned not to attend college and the other twenty-two per cent were undecided.[64]

Slocum, in a study of high school seniors in the state of Washington, reported that forty-five per cent of the group planned to continue their education beyond high school.[65] Krebs found an association between the number of years in vocational agriculture and plans to attend college. More of the third and fourth year students of vocational agriculture planned to attend college than did the first and second year students.[66]

Griffiths, in a study of ninth grade students of vocational agriculture, reported that one third of the boys had plans to attend college.[67]

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[63]Krippner, op. cit., p. 2691.

[64]Sutherland and Thompson, loc. cit.

[65]Slocum, op. cit., p. 14.

[66]Krebs, loc. cit.

[67]Griffiths, loc. cit.

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[71] Lee
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Thompson reported approximately one-half, fifty-two per cent, of a group of high school junior and senior students of vocational agriculture from twenty-seven schools in California planned to continue their education by attending college.[68]

Two studies which show almost identical percentages of former students of vocational agriculture attending college are those by Deboer, which reports approximately one out of six high school graduates doing advanced work in education,[69] and Rougeau, who reported fifteen and a half per cent of the group of former students in his study who had graduated from high school had also attended college.[70] Burchinal found only thirty per cent of farm boys, eighteen per cent of small town boys, and twelve per cent of urban boys reporting no educational plans beyond high school.[71]

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[68]Thompson, op. cit., p. 278.

[69]Wendel J. Deboer, "Post High School Training of Minnesota Vocational Agriculture Graduates." (Unpublished Non-Thesis Study, University of Minnesota, St. Paul, Minnesota, 1957) Summaries of Studies in Agricultural Education, Vocational Division Bulletin 272, Supplement Number 11, (Washington: Government Printing Office, 1958) p. 19.

[70]. Amous B. Rougeau, "Ten Year Study of Former Students of Vocational Agriculture in Six Reorganized School Districts, 1946 Through 1955." (Unpublished Doctor's Thesis, University of Missouri, Columbia, Missouri) Summaries of Studies in Agricultural Education, Vocational Division Bulletin 272, Supplement Number 11, (Washington: Government Printing Office, 1958) p. 66.

[71]Lee G. Burchinal, "What's Your Son Going to Do?" The Iowa Farm Science, Volume 14, Number 9, (March, 1960) pp. 16-18.

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In another research report Burchinal concluded that;

> Boys planning to farm less often plan for education beyond high school.[72]

Judge found in a study of boys who had attained the State Farmer degree in Oklahoma that sixty-eight per cent of that group of boys planned to attend college.[73]

Youmans reported only fifteen per cent of the farm boys in his Kentucky study planned to attend college. He found a significantly higher percentage of non-farm boys than of farm boys reported plans to attend college. No significant association was found among the girls in this study between their aspirations to attend college and farm or non-farm residence. [74]

Sahlstrom, in a study involving individuals in the upper half of each senior class from twenty-six high schools in central Minnesota, found home background of the students an important factor in determining their future educational plans. He reported that students living in town homes were more likely to attend college than those from farm homes. Other factors which he found important in

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[72]Lee G. Burchinal, "Who's Going to Farm?" The Iowa Farm Science, Volume 14, Number 10, (April, 1960) pp. 263-268.

[73]Homer Virtes Judge, "Selected Environmental Factors Which Appear to Have Contributed to the Success and Future Plans of Future Farmers of America Who Have Attained the State Farmer Degree." (Unpublished Master's Thesis, Oklahoma State University, Stillwater, Oklahoma, 1958)

[74]Youmans, op. cit., pp. 38-39.

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influencing a student's decision to attend college included high school rank, education of parents, and advice of high school counselors and instructors. He found that income level of a family influenced college attendance but that it was not a significant factor in itself.[75]

Haller and Sewell found that farm boys are apparently less likely to have high educational aspirations than are other boys. Non-farm boys tend to have higher educational aspirations than do farm boys. They concluded that independent of intelligence, farm residence may inhibit a boy's desire for higher education.[76]

Sewell and Haller found that high level of educational aspiration, as measured by plans to attend college, were most characteristic of high school students from high status families and those of high intelligence. They found that ninety per cent of the high school seniors in their study who were of high intelligence and came from high status families planned to attend college. Only thirty-two per cent of the students who were of low intelligence and came from low status families planned to attend college. They

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[75]Stanley David Sahlstrom, "Factors Influencing College Attendance Plans of Capable Rural High School Seniors." (Unpublished Doctor's Dissertation, University of Minnesota, St. Paul, Minnesota, 1961) Dissertation Abstracts Volume 22, Number 8, February 1962 (University Microfilms, Inc., Ann Arbor, Michigan, 1962) pp. 2637-2638.

[76]Haller and Sewell, op. cit., p. 410.

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found each of the two factors, high intelligence and high social status, related to educational aspiration when the effects of the other one of the factors was accounted for.[77]

Summary

This chapter has presented a review of literature in areas related to this study. Studies found which measured amount or variety of work experience engaged in by students were quite limited. Researchers have shown that most high school students of vocational agriculture acquire farm work experiences and that considerable numbers of high school students engage in varied forms of other work experiences.

No studies were found which related measurements of work experience engaged in by high school students of vocational agriculture to either their occupational plans and aspirations or their post-high school educational plans.

Several studies indicated that vocational agriculture students from full-time farms had better opportunities for complete programs of farm work experience than students from part-time or non-farm homes.

Many follow-up studies of occupations of former students of vocational agriculture have been made. These studies tend to show approximately one-half of former students of vocational agriculture in farming, with students from farms more apt to become farmers than students from

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[77]Sewell and Haller, op. cit., pp. 71-72.

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Several research studies have indicated that actual work experience was one of the important factors affecting occupational choice and plans. A considerable variation was found among the groups of students in regard to educational plans and aspirations. A student's home background and family status appear to influence the student's educational plans and aspirations.

Chapter III which follows describes the method and procedure used in this study.

CHAPTER III

METHOD AND PROCEDURE OF THE STUDY

The methods and procedures used in this study including methods of securing data, development of an information schedule, analysis of data, and testing of hypotheses are described in this chapter.

Data For the Study

The data for this study were obtained from schedules filled out by high school students of vocational agriculture from ten high schools in south central Michigan. This study was limited to the dairy and general farming type of farming area composed of the counties of Ionia, Shiawassee, Clinton, Eaton, Ingham, Livingston, Jackson, and Washtenaw. Ten schools from this area were selected at random. An alphabetical list, totaling forty-three schools, was first made of all high schools in the area with departments of vocational agriculture. Schools where a known change of vocational agriculture teachers would occur during the summer of 1962 were eliminated from the list. Ten schools were then selected from the list of high schools using a random table of numbers.[1] A list of the schools thus selected and included in the study are given in the appendix.

Each of the ten schools selected was visited during

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[1]Merle W. Tate, Statistics in Education, The Macmillion Company, New York, 1955, pp. 563-569.

the month of May, 1962. Each class of vocational agriculture was given instructions in filling out the work experience schedules. It was believed that personal contact with and explanation to each class of vocational agriculture would elicit a higher degree of concern and cooperation in the completion of the work experience schedules and thereby provide valid information for the study. Four hundred twenty-one out of a total of four hundred twenty-three students of vocational agriculture, who were in attendance at school the day of the visit, filled out schedules which were complete enough for inclusion in the study.[2]

Visits to the ten high schools were arranged by telephone. First a telephone call was made to an official of the public school system. In eight of the schools the school principal, and in one case the director of vocational education was contacted. The nature of the study was explained briefly to these officials and permission requested to contact the teacher of vocational agriculture. Permission was requested of the teacher to visit each vocational agriculture class for the purpose of having the students fill out the work experience schedules. Excellent cooperation was received from both the school officials contacted and the vocational agriculture teachers and visits were scheduled

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[2]Copy of Work Experience Schedule in Appendix C.

to each of the ten schools during May, 1962.

One day was spent at each of the high schools selected for the study. The nature and purpose of the study were explained and directions given to each class of vocational agriculture for completion of the work experience schedules.[3] Schedules were checked for completeness of answers as they were finished by the students.

Development of Instrument

This study has been developed over a two-year period of study at Michigan State University. It had its beginning with a seminar in agricultural education during the winter term of 1961. The instrument for collecting data for this study was developed during the winter term of 1962. A work experience schedule was developed for a study in a course in vocational education under the direction of Dr. Peter Haines. This schedule was used in a pilot study of work experience of high school students of vocational agriculture at Sunfield, Michigan. The schedule was checked for clarity and understanding on the part of these pupils. The schedule used in this study was revised as a result of its use in this pilot study. Revisions were also made as a result of suggestions from members of a seminar in agricultural education where the plan of this study was presented

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[3]Copy of Instructions for completing schedules in Appendix B.

during the winter term of 1962. Helpful suggestions from members of the guidance committee were also incorporated into the final revision of the schedule.

Assumptions

The following assumptions were made in regard to this study:

1. That students of high school vocational agriculture would understand the questions on the work experience schedule and could give complete answers to them.

2. That students would be truthful in answering questions on the work experience schedules.

3. That the measures of work experience used were valid measurements.

4. That the students included in the study would have given sufficient consideration to their future educational and occupational plans to provide meaningful information in regard to them.

Analyses of Data

Measurements Used Five measures of work experience were developed and used in the study. Number of hours each of the students of the study spent working during the past year were calculated in four categories: (1) hours of farm work, (2) hours of farm work with owned projects, (3) hours of off-farm work, and (4) total hours of work.

Hours of farm work experience, hours of farm work

experience with owned projects, and hours of off-farm work experience were calculated from information given by each student in regard to number of hours worked in each of these categories during both the summer period and the school term and the average number of hours worked per week during each of these periods. Total hours of work experience was calculated by adding totals of farm and off-farm work experience for the past year.

A composite farm work experience score was developed by adding scores for (1) amount of farm work, (2) variety of farm work, (3) management responsibility, (4) self appraisal of competency. Each of these four scores was developed by having the student rate himself on a one to four scale in each of ten areas of farm work for each of the four categories.

The following measurements of student characteristics were used in the study: (1) class in high school (2) place of residence (farm or non-farm), (3) whether or not father operated a farm, (4) farming status of fathers (full-time or part-time farmer), and (5) size of home farm.

The students in the study were classified according to class in high school by having them check whether they were freshmen, sophomores, juniors, or seniors. Place of residence as farm or non-farm was determined by each of the students in the study. Determination of what constituted

a farm was left to the individual student who reported either yes or no in answer to the question "Do you live on a farm?"

Occupations of fathers of the students were classified from information given on the work experience schedules completed by the high school students of vocational agriculture, as follows: (1) full-time farming, (2) part-time farming, or (3) non-farm occupations. Full-time farming included fathers of students who operated farms and who spent more than one-half of the working time in operation of the farm. Part-time farming included all fathers of students who operated farms but who spent more time at other work than in the operation of the farm. Classification of full-time and part-time farmers have been based on a number of different criteria. Whether a farmer was a full-time or part-time farmer in this study was determined on the basis of the amount of working time the operator spent in the operation of the farm in comparison with time spent at off-farm work. From the standpoint of the effect it might have on a high school student living on the farm this appeared a more logical basis for determination than either some division by source of income or a stated number of days worked off the farm. Non-farm occupations included all fathers whose only work was other than farming.

The home farms of the students were placed in size

categories from number of acres written in by the students in response to a question on the work experience schedule.

The students in this study were asked to state whether or not they had made an occupational choice. If an occupational choice had been made they were asked to name the occupation which they were most apt to enter. Occupational choices of the students thus obtained were classified as (1)farming, (2) non-farming agricultural, and (3) non-agricultural occupations.

Occupational choices listed by the students were also classified according to the North-Hatt scale of occupational prestige.[4]

The North-Hatt scale has been widely used as a rating of occupational prestige. This scale had its origin in 1947 when the National Opinion Research Center interviewed a nationwide sample of Americans in a study to explore some of the basic attitudes regarding occupations. The group of people interviewed were asked to evaluate each of ninety occupations as excellent, good, average, somewhat below average, or poor. Scores were assigned for ratings of from one hundred for excellent down to twenty for poor. Average ratings were determined for each occupation studied.

This initial scale rates only a small number of

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[4]Carell L. Shartle, Occupational Information, Its Development and Application, (Englewood Cliffs, New Jersey: Prentice - Hall, Inc., 1959) pp. 54-57.

occupations. In using this original scale some system of interpolation for unranked occupations was required. A list of occupations with interpolations of North-Hatt scale ratings was used to supplement the original North-Hatt scale in rating student's occupational choices. This scale was found in the appendices of theses by both Hensel[5] and Bittner.[6] Both of these authors credited this unpublished list of interpolated occupations to Christen Jonassen, Robert Bullock, Jerome Folkman, William Konkel, Alfred Clarke, and Russel Dynes.

A rating of certainty of entering chosen occupations was made by having each student who listed an occupational choice check whether he was very certain, fairly certain, fairly uncertain, or very uncertain of entering that occupation.

Classifications of educational plans and aspirations were used as measurements in the following categories: (1) amount of post-high school education planned, (2) degree of consideration given to educational plans, and (3) certainty of educational plans. Amount of post high school education

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[5]James William Hensel, "Relation Between High School Characteristics of Farm-Reared Senior Boys and Their Occupational Choices," (Master's Thesis, Iowa State University of Science and Technology, Ames, Iowa, 1959)

[6]Richard Hummel Bittner, "Relation Between High School Characteristics and Status of Farm Reared Male Graduates in Nonfarm Occupations." (Unpublished Master's Thesis, Iowa State College, Ames, Iowa, 1958)

was classified by having students check whether education or training beyond high school was most apt to be none, less than four years, or four or more years. A rating of consideration given to education beyond high school was made by having students check one of four categories of consideration.

Certainty of educational plans was determined by students checking positively yes, probably yes, probably not, or positively not in regard to their plans to participate in any formal educational programs beyond high school.

Tabulating Data Classifications were made of data and categories established for recording all information from the work experience schedules completed by the high school students of vocational agriculture. The information was coded by numbers and recorded on I.B.M. tabulation sheets. Information from the I.B.M. tabulation sheets was punched on I.B.M. cards for each of the 421 students in the study and verified for correctness by the data processing laboratory of the Michigan State University. Frequency counts were made from the I.B.M. cards for all the combinations of variables that it was thought would contribute to the study.

Testing Hypotheses

The hypotheses of the study were tested by the chi-square technique. The chi-square test of no association between various characteristics was made to determine where

relationships existed. It was decided to accept each of the three major hypotheses of the study if all variable characteristics were found to be related to a majority of the five measures of work experience used in the study. Each of the factors was accepted as being related to a given measure of work experience when the chi-square value indicated significance at the five per cent level of confidence. Relationships in the various tables which were found to be significant at the one per cent level were so designated.

Each of the three general hypotheses was concerned with relationships existing between a number of variable factors and measures of work experience. It was recognized that a majority of the measures of work experience might be found to be related to some but not all of the variable characteristics tested under each hypothesis. In this case the hypothesis could not be either completely accepted or completely rejected. Designations were made of the characteristics found to be related and those where no relationships were found for any hypothesis which could not be either completely accepted or completely rejected.

Summary

The data for this study were obtained from work experience schedules completed by students from ten high schools in south central Michigan. Excellent cooperation

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Information from the work experience schedules was compiled, classified, and recorded on I.B.M. tabulation sheets. Information from these tabulation sheets was punched on I.B.M. cards and verified by the data processing laboratory of Michigan State University. Frequency counts were then made of all combinations of variables which appeared likely to contribute to the study.

The existence of relationships between various factors in the study were determined by the chi-square technique. Relations were determined to be significant at the five per cent level of probability. It was decided to accept hypotheses of the study when significant relations were found between the variable factor in question and a majority of the five measures of work experience used in the study.

Chapter IV which follows presents information in regard to characteristics of the high school students

studied. Information is presented in regard to their background characteristics, their work experiences, their occupational plans and aspirations, and their post high school educational plans.

CHAPTER IV

CHARACTERISTICS OF THE YOUTH STUDIED

This chapter presents a descriptive analysis of the characteristics of the high school students in this study. Characteristics of the high school students are described under the following four categories: (1) background characteristics, (2) work experience, (3) occupational plans and aspirations, and (4) post high school educational plans.

Background Characteristics

Information for this study was obtained from schedules completed by 421 high school students of vocational agriculture from 10 high schools in south central Michigan. The distribution of youths included in the study by class in high school is shown in table I.

There were 12,455 high school students enrolled in vocational agriculture in 230 high schools in the state of Michigan during the 1961-62 school year. Freshmen made up 30.6 per cent of all students enrolled in vocational agriculture, sophomores 27.5 per cent, juniors 22.1 per cent, and seniors 19.8 per cent.[1]

In this study the sophomore, rather than the freshman as might have been expected, was the largest class

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[1](Figures supplied by Office of Agricultural Education Service, Dept. of Public Instruction, Lansing, Michigan)

group. Comparison of percentages in table I can be made with state averages listed on the preceding page. This large sophomore group was due in part to the fact that one of the high schools included in the study was a senior high school (grades ten through twelve), and had a large group of sophomores enrolled in vocational agriculture, and no freshman class. In the study there were 421 students of which 407 were boys and 14 were girls. The fourteen girls were all enrolled in vocational agriculture at one high school.

Table I

Distribution of Students According to High School Class

Class in High School	Number	Percent
Freshman	109	25.9
Sophomore	139	33.0
Junior	99	23.5
Senior	74	17.6
Total	421	100.0

Table number II gives the distribution of students in the study by number of years enrolled in vocational agriculture.

Table II

Distribution of Students According to Years Enrolled in Vocational Agriculture

Year in Vocational Agriculture	Number	Percent
First	184	43.7
Second	99	23.5
Third	81	19.3
Fourth	57	13.5
Total	421	100.0

A comparison of table II with table I reveals a considerably larger number of students enrolled in their first year of vocational agriculture than there are freshmen, (184 compared with 109). Seventy-four of the persons included in the study were seniors but only fifty-seven were enrolled in their fourth year of vocational agriculture. These figures indicate that many of these students will complete less than four years of vocational agriculture in high school.

A considerable loss of students between high school classes appears normal. Bittner, in a recent Michigan study of continued student enrollment in vocational agriculture found a student loss in vocational agriculture from one year to the next of 15.25 per cent of the total enrollment. This loss was made up of 43.06 per cent freshmen, 35.83 per cent sophomores, and 21.11 per cent juniors.[2]

Two hundred fifty-six (60.9 per cent) of the four hundred twenty-one students included in the study lived on farms. The number of students whose parents operated farms were slightly larger than the number whose parents lived on farms. This indicated that a few of the families operated but did not live on farms. Two hundred sixty-four (62.7 per cent) of the youths had families who operated a farm. The size of the farms operated by the families of the students included in the study can be seen in table III.

Approximately three-fourths (74.6 per cent)of the home farms,of the two hundred sixty-four youths whose families operated farms, were less than two hundred acres in size. Only sixty-seven (15.9 per cent) of the total group of students included in the study had home farms as large as two hundred acres.

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[2]Richard Hummel Bittner, "Identification of Selected Characteristics Associated With Continued Student Enrollment in Vocational Agriculture" (Unpublished Doctor's Thesis Michigan State University, East Lansing, Michigan, 1962) pp. 147-148.

Table III

Distribution of Students According to Size of Home Farm

Size of Farm	Number	Percent
Less than 100 Acres	118	44.7
100 to 199 Acres	79	29.9
200 to 299 Acres	29	11.0
300 to 399 Acres	22	8.3
400 Acres or More	16	6.1
Total	264	100.0

The average size of the home farms of the 264 youths in the study whose families operated farms was 138.6 acres. This compares with an average size of farm of 132.2 acres for the state of Michigan and an average size of 143.7 acres for the eight county area included in this study.[3] The home farms of students in this study were slightly smaller than the average size of farms for the counties in the area of the study. It is likely that a few places were

[3]U. S. Census, U. S. Census of Agriculture 1959. Volume 1, Counties, Part 13, Michigan, (Washington: Government Printing Office, 1961)

classified by the students as farms which did not meet the requirements for classification as farms according to the 1959 census. In order to be classified as a farm in the 1959 census a place had to have estimated sales of at least two hundred and fifty dollars of agricultural products if under ten acres in size, or have at least fifty dollars of estimated sales of agricultural products if it was ten or more acres in size.

In this study most of the families who operated farms owned their land or at least a portion of it. Only 4.9 per cent of these families owned none of the land they operated while 72.3 per cent of the families owned all of the land in their farms. The remaining 22.7 per cent owned a part of the land in their farms.

The number of farmer and non-farmer fathers among the students in this study is indicated in table IV. It will be noted from this table that fifty-nine per cent of the fathers of the students in this study were operating farms. Thirty-eight per cent were part-time farmers and twenty-one per cent were full time farmers. The fathers of forty-one per cent of the students were non-farmers. Two hundred forty-nine of the students had fathers who were operating farms. Of this number eighty-nine were full time farmers and one hundred sixty were part-time farmers according to the classification used in this study. Only thirty-

five and seven-tenths per cent of those farming were full time farmers. This is lower than the average for this eight-county area according to the 1959 census of agriculture which shows fifty-four per cent who do not work off the farm.[4] As previously noted, part of the group of part-time farmers in this study would not be considered as farmers according to the U.S. Census of Agriculture.

Table IV

Distribution of Students According to Farming Status of Fathers

Father's Farming Status	Number	Percent
Full-time Farmer	89	21.1
Part-time Farmer	160	38.0
Non-Farmer	172	40.9
Total	421	100.0

The amount of time fathers of the students in the study spent working on farms is given in table V. It indicates that a majority of the fathers of this group of vocational agriculture students did more non-farm than

[4]Ibid.

farm work. The fathers of 332 of the 421 students in this study worked more time at off-farm work than they did in operation of farms. Fathers of 172 (approximately 41 per cent) of the students did not spend any of their working time in the operation of a farm.

Table V

Distribution of Students According to Time Fathers Spent Farming

Father's Working Time Spent On Farm	Number	Percent
Full Time	62	14.7
More Than ½ Time	27	6.4
¼ To ½ Time	64	15.2
Less Than ¼ Time	96	22.8
None	172	40.9
Total	421	100.0

Work Experience

Practically all of the high school students in this study (97.4 per cent) reported some form of work experience during the past year. Table VI shows the work experiences

reported by these students for the preceding year.

Table VI

Type of Work Experience Engaged in by Students

Type of Work Experience	Number	Percent
Both Farm and Off-Farm	211	50.1
Farm Only	174	41.3
Off-Farm Only	25	6.0
No Work Experience	11	2.6
Total	421	100.0

Work experiences reported by students in this study appear to be in line with what other researchers have found. Slocum found that ninety-three per cent of a group of high school seniors studied in Washington reported that they had worked either full of part-time or both during a one year period.[5] Sutherland and Thompson reported that ninety per cent of a group of students in California had obtained

[5]Walter L. Slocum, Occupational and Educational Plans of High School Seniors From Farm and Non-Farm Homes, Washington Agricultural Experiment Station Bulletin Number 564, (Pullman, Washington, 1956) p. 17.

agricultural work experience during the past year.[6]

Three hundred eighty-five of the four hundred twenty-one vocational agriculture students reported farm work experience during the past year. Approximately half of the group (50.1 per cent) reported both on-farm and off-farm work experiences. Two hundred thirty-six (56.1 per cent) of the group reported off-farm work experiences.

Table VII

Hours of Farm Work Experience Engaged in by Students

Hours of Farm Work	Number	Percent
Under 200	108	25.6
200 to 999	143	34.0
1000 to 1799	95	22.6
1800 and Over	75	17.8
Total	421	100.0

[6]Sidney Sampson Sutherland and Orville Eugene Thompson, "Characteristics of the Pupils Enrolled in the All-Day Classes in Vocational Agriculture in California." (Unpublished Non-Thesis Study, University of California, Davis, California, 1955), Summaries of Studies in Agricultural Education, Supplement Number 9, Vocational Division 263, (Washington: Government Printing Office, 1956), p. 31.

Table VII gives the number of hours of farm work reported for a twelve-month period immediately preceding the time the schedules were completed. A wide variation was found in the amount of farm work performed during this period. Approximately one out of seven of the students (60 of 421) in the study reported two thousand or more hours of farm work during the twelve-month period. This is the equivalent of a full-time job of forty hours per week for a year with allowance for a two-weeks vacation. Approximately one-fourth of these youths (108 of 421) reported one thousand or more hours of farm work. A thousand hours is approximately the equivalent of a half-time job.

These figures appear to agree quite closely with what some other researchers have found. Straus in a study of eleventh and twelfth grade boys in Wisconsin found sixty-one per cent of the farm boys working twenty hours or more per week on the home farm.[7] This compares with over forty per cent of the boys in this study, including town as well as farm boys, who reported one thousand or more hours for the year. This is roughly equivalent to twenty hours per week for the entire year. Couch found

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[7]Murray A. Straus, "Work Roles and Financial Responsibility in the Socialization of Farm, Fringe, and Town Boys," Rural Sociology, Volume 27, Number 3, (September, 1962) pp. 257-274.

high school vocational agriculture students from families who owned their farms spending an average of 1,091 man hours per year on their supervised farming programs.[8]

Fifty-six per cent of the vocational agriculture students in the study reported doing some off-farm work during the previous year. Of the 236 students reporting off-farm work 124 reported 200 or more hours. The other 112 reported less than 200 hours.

Table VIII

Hours of Off-Farm Work Experience Engaged in by Students

Hours of Off-Farm Work	Number	Percent
None	185	43.9
1 to 199	112	26.6
200 and Over	124	29.5
Total	421	100.0

The total number of hours worked by the students in the study is presented in Table IX. All but eleven (less

[8]Kenneth Odell Couch, "A Study of the Effect of Home and Farm Conditions Upon the Supervised Farming Program of Third Year Vocational Agriculture Students in Spartanburg County, South Carolina," (Unpublished Master's Thesis, Clemson, South Carolina, 1958)

Table IX

Total Hours of Work Experience Engaged in by Students

Total Hours of Work Experience	Number	Percent
None	11	2.6
1 to 199	36	8.6
200 to 399	47	11.2
400 to 599	39	9.3
600 to 799	33	7.8
800 to 999	35	8.3
1000 to 1199	40	9.5
1200 to 1399	25	5.9
1400 to 1599	32	7.6
1600 to 1799	27	6.4
1800 to 1999	17	4.0
2000 or More	79	18.8
Total	421	100.0

than 3 per cent of the group) reported some work experience during the past year. More than one-half of the group (220 of 421) reported working one thousand or more hours during the past year, roughly the equivalent of a half-time year-around job. Seventy-nine (18.8 per cent) of the group reported working two thousand or more hours during the past year while they were attending high school. The median student in the group is in the 1000 to 1199 hour category.

Occupational Plans and Aspirations

The high school students included in this study were asked to indicate whether or not they had made an occupational choice. If they had made an occupational choice they were asked to list the occupation they thought they were most apt to enter and to indicate the certainty of entering that occupation.

Approximately three-fourths (73.9 per cent) of the students indicated they had chosen an occupation and approximately one-fourth (26.1 per cent) indicated no occupational choice had been made. Sutherland and Thompson in a California study of vocational agriculture students reported a similar percentage (25 per cent) of all students undecided on their future occupations.[9]

Table X indicates the occupational choices of the 311 students who had made choices. Half of the students

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[9]Sutherland and Thompson, loc. cit.

(50.1 per cent) who made occupational choices listed a non-agricultural occupation as the one they were most apt to enter. Thirty-five and four tenths per cent listed farming and fourteen and five tenths per cent listed non-farming agricultural occupations. This agrees very closely with findings in a Michigan study of vocational agriculture students conducted by Knight in which he reported that fifty per cent of the students aspired to agricultural occupations.[10]

Table X

Occupations Students Believed They Were Most Apt to Enter

Occupation	Number	Percent
Farming	110	35.4
Non-Farming Agricultural	45	14.5
Non-Agricultural	156	50.1
Total	311	100.0

Table XI shows the degree of certainty of entering

[10]William Herbert Knight, "Factors Associated With The Vocational Choices of High School Students of Vocational Agriculture," (Unpublished Doctor's Thesis, Michigan State University, East Lansing, 1958) p. 72.

the occupation listed as their choice by the students. The largest group of these students (45.4 per cent) indicated they were fairly certain of entering the named occupation, 22.5 per cent indicated they were very certain, and 32.1 per cent were either uncertain or had made no occupational choice.

Table XI

Certainty Students Expressed of Entering Their Chosen Occupation

Certainty of Entering Chosen Occupation	Number	Percent
Very Certain	95	22.5
Fairly Certain	191	45.4
Fairly Uncertain	18	4.3
Very Uncertain	7	1.7
No Choice Made	110	26.1
Total	421	100.0

Post-High School Educational Plans

The amount of consideration the students in the study indicated that they had given to post high school educational

plans is presented in Table XII.

Seventy per cent of the group had given more than a little consideration to post high school educational plans with thirty per cent indicating a great deal of consideration had been given. Another thirty per cent indicated little or no consideration had been given to educational plans beyond high school.

Table XII

Consideration Students Gave To Education Beyond High School

Consideration Students Gave to Post High School Education	Number	Percent
A Great Deal	126	29.9
Some	169	40.2
A Little	89	21.1
None	37	8.8
Total	421	100.0

Approximately one-fifth (19.5 per cent) of the students reported that they had positive plans for post high school education. Approximately three-fifths (62.5 per cent) indicated that they either probably or positively

planned to continue their formal education beyond high school. Only thirty (7.1 per cent) of the students indicated that they positively would not participate in education beyond high school.

The certainty expressed by students of participating in education beyond high school is shown in Table XIII.

Table XIII

Certainty Students Expressed of Continuing Education Beyond High School

Certainty of Continuing Education Beyond High School	Number	Percent
Positively Yes	82	19.5
Probably Yes	181	43.0
Probably Not	116	27.6
Positively Not	30	7.1
No Answer	12	2.8
Total	421	100.0

Sixty-two and five-tenths per cent of the group indicated that according to their present plans they would at least probably participate in some form of post-high

school education. This was somewhat higher than the percentage of students having plans for continuing their education beyond high school as reported by some other researchers. Thompson found that forty-three per cent of a group of vocational agriculture students in California planned to attend college.[11] Slocum in a study of high school seniors in the state of Washington reported that forty-five per cent of the group planned to continue their education beyond high school,[12] and Sutherland and Thompson reported that forty-five per cent of the high school vocational agriculture students, in their study in California, planned to attend at least two years of college.[13]

Some researchers reported considerably higher percentages of high school students planning post high school education than was found in this study. Burchinal reported seventy per cent of the farm boys in his study had plans for post high school education. The percentages of small town and urban boys with post high school plans were even higher, (84 and 88 per cent respectively).[14]

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[11] O. E. Thompson, "What Are the Plans of Vocational Agriculture Students?" Agricultural Education Magazine. Volume 34, Number 12, (June, 1962) pp. 276-278.

[12] Slocum, op. cit., p. 14.

[13] Sutherland and Thompson, loc. cit.

[14] Lee G. Burchinal, "What's Your Son Going to Do?" The Iowa Farm Science, Volume 14, Number 9, (March, 1960) pp. 16-18.

The students participating in this study were asked to indicate whether their education beyond high school was most apt to be none, less than four years, or four or more years. Twenty-one of the group failed to answer the question. Table XIV shows 34.3 per cent of the 400 students answering none, 45.0 per cent answering less than four years, and 20.7 per cent indicating that their post high school education was most apt to be four or more years.

Table XIV

Post High School Educational Plans of Students

Amount of Post High School Education Planned	Number	Per cent
None	137	34.3
Less Than 4 Years	180	45.0
4 or More Years	83	20.7
Total	400	100.0

Summary

The data for this study were secured from schedules filled out by 421 vocational agriculture students attending 10 high schools in south central Michigan. These students represented all four high school classes. Sixty per cent

of the group lived on farms and fifty-nine per cent of the students' fathers engaged in farming operations.

More of the students in the study were in the tenth grade than normally would be expected due in large part to one high school in the study with a large number of tenth grade students of vocational agriculture and no ninth grade class. Most studies of high school students of vocational agriculture have included only boys. This study includes fourteen girls who made up 3.3 per cent of the students in the study.

The size of home farms of students in the study appears to be representative of both the area of the study and the state of Michigan. Average size of farms of the students was approximately six acres larger than the average for the state and approximately five acres smaller than the average for the area.

A higher percentage of students in this study lived in non-farm homes than was found for many other studies involving students of vocational agriculture. A rather high proportion of the farm students in the study had fathers who were only part-time farmers and worked at non-farm jobs. All of the students in the study lived in locations that were in driving distance for workers in automobile factories.

Four hundred and ten (over 97 per cent) of the four hundred and twenty-one students in the study had engaged in some type of work experience during the past year. The fact

that most all high school students engage in some type of work experience agrees with information reported by a number of other research studies. A total of 385 students had engaged in farm work and 236 students had engaged in off-farm work. The median student in this study worked the equivalent of one-half of a forty hour per week job during the preceding year. Seventy-nine of the students (18.8 per cent) reported working 2000 or more hours during the year immediately preceding the study.

Approximately three-fourths (74 per cent) of the students in the study indicated that they had made an occupational choice. This was an almost identical figure to that found by Sutherland and Thompson among a group of high school vocational agriculture students in California.[15] One-half of the students who had made occupational choices expected to enter an agricultural occupation. This is similar to results reported by several other researchers and is almost identical with the number reported by Knight in a study of high school vocational agriculture students in Michigan.[16] Approximately seventy per cent of the students who expected to enter an agricultural occupation planned to farm. One hundred ten students expected to become farmers and another forty-five expected to enter other agricultural

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[15]Sutherland and Thompson, loc. cit.

[16]Knight, loc. cit.

occupations.

Most of the youth studied indicated that they had given some consideration to post high school educational plans. Two hundred and sixty-three (62.5 per cent) of the students indicated they planned either positively or probably to participate in education beyond high school. A wide range in percentages of high school students who had plans for post high school education was reported by other researchers. Reports from other research studies range from less than one-half of the percentage found here to approximately fifty per cent more students who planned to continue their education beyond high school. Of the 263 students who indicated they planned some post high school education 180 indicated that their post high school education was most apt to be less than four years and 83 that it was most apt to be four or more years.

This chapter has presented information on the characteristics of the high school students included in this study. It will be followed by chapter V which will present findings in regard to work experiences. It will present information regarding variable factors which were found to be related to kind and amount of work experience engaged in by these students.

CHAPTER V

FINDINGS RELATED TO WORK EXPERIENCE

This chapter has as its purpose a determination of relationships existing between work experiences engaged in by high school students of vocational agriculture and selected characteristics of the individual students.

The results obtained by testing the first general hypothesis of the study, that there is an association between work experiences engaged in by high school students of vocational agriculture and selected characteristics of these students, is presented. It was decided to use five measures of work experience of the individuals in the study during the past year as follows: (1) hours of farm work experience, (2) hours of farm work experience with owned projects, (3) composite farm work experience score, (4) hours of off-farm work experience, and (5) total hours of work experience.

A determination was made as to whether or not relationships existed between each of these five measures of work experience and each of the following characteristics: (1) class in high school, (2) place of residence, (3) farm operation by father, (4) farming status of father, and (5) size of home farm.

It was decided to accept the hypothesis for each of

the characteristics for which a significant relationship was found with a majority of the five measures of work experience used. Tables presented in this chapter include both numbers and percentages. The percentage for each category is shown in parenthesis below the number.

Relation Between Work Experience and Class in High School

Table XV shows the relation between class in high school and number of hours of farm work experience engaged in by high school vocational agriculture students during the past year.

The chi-square value of the figures in table XV does not show a significant relation between class in high school and hours of farm work experience engaged in by these high school students. However there is some indication that hours of farm work experience tend to be related to class in high school. A greater number of juniors and seniors (46.2 per cent) than of freshmen and sophomores (36.3 per cent) had acquired more than one thousand hours of work experience during the previous year. A slightly higher percentage of the freshmen and sophomores (27.8 per cent) than of juniors and seniors (22.5 per cent) had engaged in less than two hundred hours of farm work during this period.

Table XV

Relation Between Hours of Farm Work Experience and Class in High School

High School Class	Hours of Farm Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or Over	Total
Freshman	21 (19.3)	42 (38.5)	25 (22.9)	21 (19.3)	109
Sophomore	48 (34.6)	47 (33.8)	22 (15.8)	22 (15.8)	139
Junior	25 (25.2)	27 (27.3)	30 (30.3)	17 (17.2)	99
Senior	14 (18.9)	27 (36.5)	18 (24.3)	15 (20.3)	74
Total	108 (25.6)	143 (34.0)	95 (22.6)	75 (17.8)	421 (100.0)

Chi-square = 15.6728 with 9 degrees of freedom; not significant.

Table XVI indicates that there is a significant relation between class in high school and hours of farm work experience with owned projects during the previous year. The percentages of students in the study who spent more than two hundred hours working with projects they owned were as follows: freshmen 44.9 per cent, sophomores 27.3

per cent, juniors 33.3 per cent, and seniors 44.6 per cent. It will be noted that almost an identical percentage of freshmen and seniors fall in this upper category of hours worked with owned projects. There is a decrease from forty-five to twenty-seven per cent in this highest category from freshman to sophomore year and then an increase in percentage from sophomore to junior to senior year.

Table XVI

Relation Between Hours of Farm Work Experience With Owned Projects and Class in High School

High School Class	Hours of Farm Work With Owned Projects			
	None	1 to 199	200 and Over	Total
Freshman	27 (24.8)	33 (30.3)	49 (44.9)	109
Sophomore	44 (31.7)	57 (41.0)	38 (27.3)	139
Junior	33 (33.3)	33 (33.3)	33 (33.3)	99
Senior	25 (33.8)	16 (21.6)	33 (44.6)	74
Total	129 (30.6)	139 (33.0)	153 (36.3)	421 (100.0)

Chi-square = 14.5592 with six degrees of freedom; significant at five per cent level.

A slightly larger percentage of freshman (75 per cent) reported farm work experience with projects they owned than did sophomores (68 per cent), juniors (67 per cent), and seniors (66 per cent). A division of the students into upper classmen (juniors and seniors) and lower classmen (freshmen and sophomores) shows a larger percentage of upper classmen (48 per cent) than lower classmen (31 per cent) who reported more than two hundred hours of farm work with owned projects during the year.

The relation between composite farm work experience score and class in high school is shown in table XVII. The chi-square value for the figures in table XVII indicate a significant relationship at the one per cent level between composite farm work experience score and class in high school. The composite farm work experience score was developed to provide a comprehensive measure of farm work experience. Four scores of farm work experience were developed for each student as follows: (1) amount of farm work score, (2) variety of farm work score, (3) management responsibility score, and (4) self appraisal of competency score. Each of these four farm work scores was developed by adding the numbers circled on the work experience schedule indicating the student's self rating on a four-point scale for each of ten areas of farm work. The composite farm work experience score was then developed by combining

Table XVII

Relation Between Composite Farm Work Experience Score and Class in High School

High School Class	Composite Farm Work Experience Score			
	20 and below	21 to 40	41 and above	Total
Freshmen	30 (27.5)	42 (38.5)	37 (34.0)	109
Sophomore	57 (41.0)	42 (30.2)	40 (28.8)	139
Junior	21 (21.2)	37 (37.4)	41 (41.4)	99
Senior	14 (18.9)	31 (41.9)	29 (29.2)	74
Total	122 (29.0)	152 (36.1)	147 (34.9)	421 (100.0)

Chi-square = 17.0195 with 6 degrees of freedom; significant at 1 per cent level.

these four scores for each student.[1] Of the juniors and seniors 40.5 per cent had high composite farm work experience scores (above 40) compared to 31.0 per cent of the

[1]Composite farm work experience scores of the students and also the four scores which were combined to develop the composite farm work experience score are given in Appendix D.

freshmen and sophomores. Only 20.2 per cent of the juniors and seniors had low composite farm experience scores (20 and below) compared with 35.1 per cent of the freshmen and sophomores.

The amount of off-farm work experience engaged in by the high school students in the study is presented in table XVIII according to class in high school.

Table XVIII

Relation Between Hours of Off-Farm Work Experience And Class in High School

High School Class	Hours of Off-Farm Work Experience			
	None	1 to 199	200 and over	Total
Freshman	51 (46.8)	33 (30.3)	25 (22.9)	109
Sophomore	66 (47.5)	34 (24.5)	39 (28.0)	139
Junior	40 (40.4)	26 (26.3)	33 (33.3)	99
Senior	28 (37.8)	19 (25.7)	27 (36.5)	74
Total	185 (43.9)	112 (26.6)	124 (29.5)	421 (100.0)

Chi-square = 5.7348 with 6 degrees of freedom; not significant.

Two hundred thirty-six of the four hundred twenty-one students in the study (56.1 per cent) reported having engaged in off-farm work experiences during the previous year. Approximately one-half of the students (52.5 per cent) who had engaged in off-farm work reported two hundred or more hours for the year and the other 47.5 per cent reported less than two hundred hours.

When tested by the chi-square technique the figures in table XVIII do not show a significant relation between hours of off-farm work and class in high school. However the figures in table XVIII do indicate that upper classmen engaged in more hours of off-farm work experience than did lower classmen. Sixty-one per cent of the juniors and seniors reported engaging in off-farm work experiences compared with fifty-three per cent of the freshmen and sophomores. There was also a slightly higher percentage of the upper classmen who reported having worked two hundred or more hours. The percentages were 34.1 per cent of the upper classmen compared with 21.3 per cent of the freshmen and sophomores.

The total number of hours of work experience engaged in by the students according to class in high school is presented in table XIX.

A relationship was found to be significant at the one per cent level between class in high school and total

number of hours worked during the previous year. One thousand or more hours worked was reported by 61.8 per cent of the juniors and seniors compared with 49.4 per cent of the freshmen and sophomores. Only 7.5 per cent of the freshmen and sophomores and 13.7 per cent of the juniors and seniors reported working less than 200 hours during the year.

Table XIX

Relation Between Total Hours Work Experience and Class in High School

High School Class	Hours of Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Freshman	9 (8.3)	41 (37.6)	35 (32.1)	24 (22.0)	109
Sophomore	25 (18.0)	60 (43.2)	27 (19.4)	27 (19.4)	139
Junior	9 (9.1)	34 (34.4)	33 (33.3)	23 (23.2)	99
Senior	4 (5.4)	19 (25.7)	29 (39.2)	22 (29.7)	74
Total	47 (11.2)	154 (36.6)	124 (29.4)	96 (22.8)	421 (100.0)

Chi- square = 23.7740 with 9 degrees of freedom; significant at 1 per cent level.

Total hours of work experiencs is a combination of all hours of both farm and off-farm work experience of the students. Neither of these two measures of work experience, farm or off-farm, was found by itself to be related to class in high school. However, for both of these measures of work experience a higher percentage of upper classmen than lower classmen was found in the upper categories of work experience. Differences were not great enough to show significant relations by the chi-square method for either of the measures alone. When the two measures of work experience were combined giving the total hours of work experience this total was found significantly related to class in high school. Total hours of work experience tended to increase with advancement by class in high school.

Most of the students in this study engaged in work experiences during the year. Over one-half of them (52.2 per cent) reported working a total of over one thousand hours for the year. Only 11.2 per cent of the total group reported not having worked as much as two hundred hours during the year.

It was decided to accept the portion of the first general hypothesis of the study which stated that a relationship existed between work experiences of high school students of vocational agriculture and their class in high school. More than one-half of the measures of work experience were

found to be significantly related to class in high school.

For all five measures of work experience used higher percentages of juniors and seniors than of freshmen and sophomores were found in the larger amounts of work categories.

Relation Between Work Experience and Place of Residence

Hours of farm work experience according to farm or non-farm residence is presented in table XX below.

Table XX

Relation Between Hours of Farm Work Experience and Place of Residence

Place of Residence	Hours of Farm Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Farm	21 (8.2)	84 (32.8)	83 (32.4)	68 (26.6)	256
Non-Farm	87 (52.7)	59 (35.0)	12 (7.3)	7 (4.2)	165
Total	108 (25.6)	143 (34.0)	95 (22.6)	75 (17.8)	421 (100.0)

Chi-square = 133.9452 with three degrees of freedom; significant at one per cent level

The chi-square value of figures presented in table XX

indicate a relation, significant at the one per cent level, between hours of farm work experience and farm or non-farm residence. One hundred fifty-one of the two hundred fifty-six students living on farms (59.0 per cent) reported one thousand or more hours of farm work experience for the year compared with only nineteen of the one hundred sixty-five students (11.5 per cent) from non-farm residence. Fifty-two and seven-tenths per cent of the non-farm boys reported less than two hundred hours of farm work experience for the year while only eight and two-tenths per cent of the farm students reported less than two hundred hours.

Eighty-two per cent of the farm youth reported work with projects they owned compared with only fifty per cent of the non-farm youth reporting experience with projects they owned. Of the farm students forty-six and five-tenths per cent reported two hundred or more hours of farm work with projects they owned while only twenty and six-tenth percent of the students from non farm residences reported this amount of farm work with owned projects.

Table XXI on the following page shows relation between hours of farm work with projects owned by students and place of residence. Significant relation was found at the one per cent level when tested by the chi-square method.

Table XXI

Relation Between Hours of Farm Work With Owned Projects and Place of Residence

Place of Residence	Hours of Farm Work With Owned Projects			
	None	1 to 199	200 and Over	Total
Farm	46 (18.0)	91 (35.5)	119 (46.5)	256
Non-Farm	83 (50.3)	48 (29.1)	34 (20.6)	165
Total	129 (30.6)	139 (33.0)	153 (36.4)	421 (100.0)

Chi-square is 53.9804 with two degrees of freedom; significant at one per cent level.

It will be noted from table XXI above that a much higher percentage of the non-farm students (50.3 per cent) reported no work with owned projects than did students from farms (18.0 per cent).

Table XXII on the following page shows a significant relationship between composite farm work experience score and farm or non-farm residence.

A much higher percentage of the youth from farms had high composite farm work experience scores than did the non-farm youth. Only 18.2 per cent of the non-farm youth had

scores in the high category compared with 45.7 per cent of the farm youth. Over one-half of the non-farm youth had low farm work experience scores (20 or below) while less than one in seven of the farm youth had scores in the low category.

Table XXII

Relation Between Composite Farm Work Experience Score and Place of Residence

Place of Residence	Composite Farm Work Experience Score			
	20 and below	21 to 40	41 and above	Total
Farm	35 (13.7)	104 (40.6)	117 (45.7)	256
Non-Farm	87 (52.7)	48 (29.1)	30 (18.2)	165
Total	122 (29.0)	152 (36.1)	147 (34.9)	421 (100.0)

Chi-square = 78.2506 with two degrees of freedom; significant at one per cent level.

Table XXIII on the following page shows the relation between hours of off-farm work experience and place of residence.

Table XXIII

Relation Between Hours of Off-Farm Work Experience and Place of Residence

Place of Residence	Hours of Off-Farm Work			Total
	None	1 to 199	200 and over	
Farm	145 (56.6)	67 (26.2)	44 (17.2)	256
Non-Farm	40 (24.2)	45 (27.3)	80 (48.5)	165
Total	185 (43.9)	112 (26.6)	124 (29.5)	421 (100.0)

Chi-square = 57.4477 with two degrees of freedom; significant at the one per cent level.

It will be noted from table XXIII that there were many more of the farm students who did not participate in off-farm work than of the non-farm students. Approximately one-half (80 of 165 of the non-farm students reported having worked at off-farm jobs for 200 or more hours during the past year. Only about one-sixth of the farm students (44 of 256) had worked this much at off-farm jobs. More than three-fourths (75.8 per cent) of the non-farm youth had

engaged in off-farm work experiences.

Figures are presented in table XXIV which show a definite relation between total hours of work experience and farm or non-farm residence.

Table XXIV

Relation Between Total Hours of Work Experience and Place of Residence

Place of Residence	Total Hours of Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Farm	10 (3.9)	74 (28.9)	93 (36.3)	79 (30.9)	256
Non-Farm	37 (22.4)	80 (48.5)	31 18.8)	17 (10.3)	165
Total	47 (11.2)	154 (36.6)	124 (29.4)	96 (22.8)	421 (100.0)

Chi-square = 70.3971 woth three degrees of freedom; significant at one per cent level.

Total hours of work experience in table XXIV combines both farm and off-farm work experiences of the students. Sixty-seven per cent of the farm students reported working one thousand or more hours during the year compared with only twenty-nine per cent of the non-farm students.

Twenty-two per cent of the non-farm students reported working less than two hundred hours during the year while less than four per cent of those living on farms reported less than two hundred hours of work experience for the same period.

All five measures of work experience were found to be related to farm or non-farm residence at the one per cent level of confidence. Students who lived on farms performed more hours of farm work, did more work with productive projects they owned, had higher composite farm work experience scores and also performed more total hours of work during the year than the non-farm students. More of the off-farm students also reported engaging in two hundred or more hours of off-farm work during the year.

Relation Between Work Experience and Father's Operation of a Farm

The following five tables show the relationships between the students' work experiences and whether or not their fathers operated farms. There is an inter-relation between operation of a farm by the student's father and place of residence. Most of the students who lived on farms also had fathers who operated farms. However thirty-one students reported that they lived on farms but that their fathers did not operate farms. Twenty-seven other students reported that their fathers operated farms but that they did not live on farms.

Table XXV which follows shows the relationship between hours of farm work experience by the students and whether or not their fathers operated a farm.

Table XXV

Relation Between Hours of Farm Work Experience and Farm Operation by Father

Farm Operated By Father	Hours of Farm Work				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Yes	28 (11.3)	84 (33.7)	76 (30.5)	61 (24.5)	249
No	80 (46.5)	59 (34.3)	19 (11.1)	14 (8.1)	172
Total	108 (25.6)	143 (34.0)	95 (22.6)	75 (17.8)	421 (100.0)

Chi-square is 81.7159 with three degrees of freedom; significant at one per cent level.

Over one-half (55.2 per cent) of the youth whose fathers operated farms reported one thousand or more hours of farm work during the year. This is roughly equivalent to one-half of a full-time job. Less than one-fifth (19.2 per cent) of the students whose fathers did not operate farms reported as much as one thousand hours of farm work. Only 11.3 per cent of the students whose fathers operated

farms reported less than 200 hours of farm work compared with 46.5 per cent of those whose fathers were not farmers.

Table XXVI shows a positive relation between hours of farm work experience with owned projects and farm operation by father. One -half of the students whose fathers were not operating farms reported no farm work experience with owned projects compared to only 17.3 per cent of the students whose fathers operated farms. Twenty-five per cent of the students whose fathers were not farmers and forty-four per cent of those whose fathers operated farms reported two hundred or more hours of work with projects they owned.

Table XXVI

Relation Between Hours of Work Experience With Owned Projects and Farm Operation by Father

Farm Operated by Father	Hours of Farm Work With Owned Projects			
	None	1 to 199	200 and over	Total
Yes	43 (17.3)	96 (38.5)	110 (44.2)	249
No	86 (50.0)	43 (25.0)	43 (25.0)	172
Total	129 (30.6)	139 (33.0)	153 (36.4)	421 (100.0)

Chi-square = 52.412 with two degrees of freedom; significant at one per cent level

Table XXVII shows a positive relationship between composite farm work experience scores and farm operation by students' fathers. Approximately one-half (49.4 per cent) of the students whose fathers did not operate a farm had low composite farm work experience scores (20 or below) compared to less than one-sixth (14.8 per cent) of the students whose fathers were operating farms.

Table XXVII

Relation Between Composite Farm Work Experience Score and Farm Operation by Father

Farm Operation by Father	Composite Farm Work Experience Score			
	20 and below	21 to 40	41 and above	Total
Yes	37 (14.8)	105 (42.2)	107 (43.0)	249
No	85 (49.4)	47 (27.3)	40 (23.3)	172
Total	122 (29.0)	152 (36.1)	147 (34.9)	421

Chi-square = 59.4721 with two degrees of freedom; significant at one per cent level.

Table XXVIII shows a significant relation between hours of off-farm work by the student and father's operation

of a farm. All measures of farm work experience showed higher levels of farm work experience associated with farm operation by students' fathers. The reverse is true of off-farm work experience. Seventy-two per cent of the students whose fathers did not operate farms and forty-five per cent of those whose fathers did reported that they had engaged in off-farm work experiences. Forty-three per cent of the students whose fathers did not operate farms worked two hundred or more hours at off-farm work during the year compared to

Table XXVIII

Relation Between Hours of Off-Farm Work Experience and Farm Operation by Father

Farm Operation by Father	Hours of Off-Farm Work			
	None	1 to 199	200 and over	Total
Yes	136 (54.6)	63 (25.3)	50 (20.1)	249
No	49 (28.5)	49 (28.5)	74 (43.0)	172
Total	185 (43.9)	112 (26.6)	124 (29.5)	421 (100.0)

Chi-square = 34.3732 with two degrees of freedom; significant at one per cent level.

twenty per cent of the students whose fathers were farming.

The total hours of work experience of the students in the study are shown in table XXIX according to whether or not their fathers were operating farms. Fifty-five per cent of the students whose fathers operated farms reported one thousand or more total hours of work experience during the year compared with thirty-four per cent of the students whose fathers did not operate farms.

Table XXIX

Relation Between Total Hours of Work Experience and Farm Operation by Father

Farm Operation by Father	Total Hours of Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Yes	13 (5.2)	75 (30.1)	90 (36.2)	71 (28.5)	249
No	34 (19.8)	79 (45.9)	34 (19.8)	25 (14.5)	172
Total	47 (11.2)	154 (36.6)	124 (29.4)	96 (22.8)	421 (100.0)

All five measures of work experience used were found to be related at the one per cent level of confidence to

whether or not fathers of the students operated farms. Students from families where fathers operated farms reported more farm work experience and also more total work experience than did students whose fathers did not operate farms. Off-farm work experiences tended to be associated with fathers not operating farms. More of the students whose fathers did not operate farms than those whose fathers did engaged in off-farm work experience.

Relation Between Work Experience and Farming Status of Fathers

Fathers of two hundred forty-nine (58.2 per cent) of the four hundred twenty-one students operated farms. Eighty-nine of these fathers were operating farms on a full-time basis and one hundred sixty on a part-time basis. Tables XXX through XXXIV shows relations between the various measures of work experience and whether father operates a farm full or part-time for the students whose fathers were operating farms.

Table XXX on the following page shows a relation, significant at the one per cent level, between hours of farm work experience and farming status of fathers classified as full-time or part-time farmers.

Over three-fourths of the students (75.3 per cent) whose fathers were full-time farmers reported one thousand or more hours of farm work experience. Almost one-half (43.7 per cent) of the students whose fathers were part-time

Table XXX

Relation Between Hours of Farm Work Experience and Farming Status of Fathers

Farming Fathers	Hours of Farm Work				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Full-Time	2 (2.2)	20 (22.5)	31 (34.8)	36 (40.5)	89
Part-Time	26 (16.3)	64 (40.0)	45 (28.1)	25 (15.6)	160
Total	28 (11.3)	84 (33.7)	76 (30.5)	61 (24.5)	249 (100.0)

Chi-square = 30.441 with three degrees of freedom; significant at one per cent level.

farmers also reported 1000 or more hours of farm work experience during the year. A relatively small number of each group reported less than 200 hours of farm work experience for the year. Only two of the eighty-nine students (slightly over 2 per cent) whose fathers were full-time farmers reported less than 200 hours of farm work experience for the year. Twenty-six of the one hundred sixty students (16.3 per cent) whose fathers were part-time farmers reported less than 200 hours of farm work experience.

Information in tables XXX and XXXI indicates that students whose fathers farm on a full-time basis spent more time

doing farm work than did those students whose fathers were part-time farmers. However, having a father who was a full-time farmer appears to have had no influence on amount of farm work done with owned projects by students. This indicates the probability that the additional work performed on farms by students whose fathers were full-time farmers was done in relation to farm enterprises conducted by fathers and had little if any effect on the amount of time devoted by the students to caring for farm enterprises owned by them.

Table XXXI indicates that no relation existed between hours of work experience with owned projects and whether

Table XXXI

Relation Between Hours of Work Experience on Owned Projects and Farming Status of Fathers

Farming Father	Hours of Farm Work With Owned Projects			
	none	1 to 199	200 and over	Total
Full-Time	17 (19.1)	30 (33.7)	42 (41.2)	89
Part-Time	26 (16.2)	66 (41.3)	68 (42.5)	160
Total	43 (17.3)	96 (38.5)	110 (44.2)	249 (100.0)

Chi-square = 1.3958 with two degrees of freedom; not significant

father operated a farm on a full-time or a part-time basis.

Table XXXII indicates that there is no significant relation between composite farm work experience score and whether the students' fathers were full-time or part-time farmers.

Table XXXII

Relation Between Composite Farm Work Experience Score and Farming Status of Fathers

Farming Fathers	Composite Farm Work Experience Score			
	20 and below	21 to 40	41 and above	Total
Full-Time	7 (7.9)	43 (48.3)	39 (43.8)	89
Part-Time	30 (18.7)	62 (38.8)	68 (42.5)	160
Total	37 (14.8)	105 (42.2)	107 (43.0)	249 (100.0)

Chi-square = 1.3958 with two degrees of freedom; not significant.

Even though students whose fathers were full-time farmers did more work on the farm than did students whose fathers were part-time farmers there was no significant relationship indicated when the two groups of students were

compared in regard to composite farm work experience scores.

Table XXXIII shows a significant relationship at the five per cent level between amount of off-farm work experience and whether father was a full-time or part-time farmer.

Table XXXIII

Relation Between Hours of Off-Farm Work Experience and Farming Status of Fathers

Farming Fathers	Hours of Off-Farm Work			
	None	1 to 199	200 and over	Total
Full-Time	58 (65.2)	20 (22.5)	11 (12.3)	89
Part-Time	73 (48.7)	43 (26.9)	39 (24.4)	160
Total	136 (54.6)	63 (25.3)	50 (20.1)	249 (100.0)

Chi-square = 7.3717 with two degrees of freedom; significant at the five per cent level

The students whose fathers were part-time farmers spent more hours doing off-farm work than the students whose fathers were full-time farmers. Fifty-one and three-tenths per cent of the students whose fathers were part-time farmers engaged in off-farm work during the year compared to thirty-four and eight tenths per cent of the students whose fathers

were full-time farmers. Twice as large a percentage of the students whose fathers were part-time farmers (24 per cent) reported 200 or more hours of off-farm work as students whose fathers were full-time farmers.

Table XXXIV shows that a relation exists between total hours of work experience and farming status of fathers for those students whose fathers operated farms.

Table XXXIV

Relation Between Total Hours of Work Experience and Farming Status of Fathers

Farming Fathers	Total Hours of Work Experience		
	Under 1000 Hours	1000 Hours and Over	Total
Full-Time	17 (19.1)	72 (80.9)	89
Part-Time	71 (44.4)	89 (55.6)	160
Total	88 (35.3)	161 (64.7)	249

Chi-square is 15.9781 with one degree of freedom; significant at one per cent level.

Figures in table XXXIV show seventy-two of eighty-nine students, (80.9 per cent) whose fathers were farming

full-time, reported having worked 1000 or more hours.

Hours of farm work experience, hours of off-farm work experience, and total hours of work experience were found to be significantly related to whether the student's father was a full-time or part-time farmer.

Significant relations were not found between farming status of fathers, classified as full-time or part-time farmers, and either hours of farm work with owned projects or composite work experience score. Students whose fathers were full-time farmers did more farm work and more total work but less off-farm work than students whose fathers were part-time farmers.

Total hours of work experience combines hours of both farm and off-farm work experience. Similar relations were found between hours of farm work experience and total hours of work experience when compared with father's farming status. However, hours of off-farm work experience, which is also a component part of total work experience, shows an opposite relationship. Hours of farm work experience made up a much larger proportion of total hours than did non-farm work experience. The median hours of farm work experience was more than 1000 hours compared with a median of less than 200 hours of off-farm work experience.

The fact that students with fathers who were full-time farmers did more farm work appears to be partially due to the fact that students whose fathers were full-time

farmers were in most cases the same ones who came from larger farms. Approximately eighty per cent of the students whose fathers were full-time farmers came from farms of 100 acres or larger compared to forty per cent of the students with fathers farming part-time who came from farms as large as 100 acres.

Relation Between Work Experience and Size of Home Farm

Tables XXXV through XXXIX shows relation between measures of work experience and size of home farms for the 264 students in the study whose families had farms. Table XXXV shows that a relation exists between hours of farm work experience and size of farm.

Table XXXV

Relation Between Hours of Farm Work Experience and Size of Farm

Size of Farm	Hours of Farm Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Under 100 A.	19 (16.1)	51 (43.2)	36 (30.5)	12 (10.2)	118
100 A. or More	8 (5.5)	36 (24.6)	47 (32.2)	55 (37.7)	146
Total	27 (10.2)	87 (33.0)	83 (31.4)	67 (25.4)	264 (100.0)

Chi-square = 33.5077 with three degrees of freedom; significant at one per cent level.

Of the 146 students in the study whose families operated farms, of 100 acres or larger, 37.7 per cent reported farm work experience of 1800 hours or more and 30.1 per cent reported less than 1000 hours of farm work experience for the previous year. In contrast to these percentages only 10.2 per cent of the 118 students from farms smaller than 100 acres reported 1800 or more hours of farm work and 59.3 per cent reported less than 1000 hours during the past year.

Table XXXVI shows the hours of farm work with owned

Table XXXVI

Relation Between Hours of Farm Work Experience With Owned Projects and Size of Farm

Size of Farm	Hours of Farm Work With Owned Projects			
	None	1 to 199	200 and over	Total
Under 100 A.	18 (15.3)	45 (39.1)	55 (45.6)	118
100 A. or More	27 (18.5)	52 (35.6)	67 (45.9)	146
Total	45 (17.1)	97 (36.7)	122 (46.2)	264 (100.0)

Chi-square = .6216 with two degrees of freedom; not significant.

projects engaged in by 264 students according to size of farm. The chi-square value of figures in table XXXVI does not indicate a significant relationship at the five per cent level between hours of farm work with owned projects and size of family farm. Size of farm is related to total hours of farm work engaged in by the students in table XXXVI but apparently has little or no effect on the amount of time that the student spends in working with projects he owns.

Table XXXVII shows the existence of a significant relationship between size of farm and composite farm work experience score.

Table XXXVII

Relation Between Composite Farm Work Experience Score and Size of Farm

Size of Farm	Composite Farm Work Experience Score			
	20 and below	21 to 40	41 and above	Total
Under 100 A.	25 (21.2)	50 (42.4)	43 (36.4)	118
100 A. or More	11 (7.5)	60 (41.1)	75 (51.4)	146
Total	36 (13.6)	110 (41.7)	118 (44.7)	264 (100.0)

Chi-square is 12.1991 with two degrees of freedom; significant at one per cent level.

Over one-half of the students from larger farms (51.5 per cent) have high composite farm work experience scores (41 and above) compared with 36.4 per cent of the students from farms smaller than 100 acres in size. Only 7.5 per cent of the students from small farms had low composite farm work experience scores (20 and below).

A relationship between hours of off-farm work and size of farm is shown in table XXXVIII.

Table XXXVIII

Relation Between Hours of Off-Farm Work Experience and Size of Farm

Size of Farm	Hours of Off-Farm Work Experience			
	None	1 to 199	200 and Over	Total
Under 100 A.	53 (44.9)	34 (28.8)	31 (26.3)	118
100 A. or More	96 (65.8)	83 (22.6)	17 (11.6)	146
Total	149 (56.4)	67 (25.4)	48 (18.2)	264 (100.0)

Chi-square = 13.6992 with two degrees of freedom; significant at one per cent level.

More of the students from the larger farms had done no off-farm work (65.8 per cent) than students from farms

smaller than 100 acres (44.9 per cent). Twenty-six and three-tenths per cent of the students whose home farms were under 100 acres in size reported working at off-farm jobs for 200 or more hours per year compared with only 11.6 per cent of the students from larger farms.

Table XXXIX indicates a relationship, significant at the one per cent level, between total hours of work experience and size of home farm for the students whose families operate farms.

Table XXXIX

Relation Between Total Number of Hours of Work Experience and Size of Farm

Size of Farm	Total Hours of Work Experience				
	Under 200	200 to 999	1000 to 1799	1800 or over	Total
Under 100 A.	10 (8.5)	46 (39.0)	45 (38.1)	17 (14.4)	118
100 A. or More	4 (2.7)	33 (22.6)	48 (32.9)	61 (41.8)	146
Total	14 (5.3)	79 (29.9)	93 (35.2)	78 (29.6)	264 (100.0)

Chi-square = 26.9497 with three degrees of freedom; significant at one per cent level.

Approximately three-fourths (74.7 per cent) of the

students from farms of 100 acres or more and approximately one-half (52.5 per cent) of those from smaller farms reported working more than 1000 hours during the year. Very few of the students, 8.5 per cent of those from smaller and 2.7 per cent of those from larger farms, worked less than 200 hours during the year.

Larger farms were found to be associated with more hours of farm work experience, higher composite farm work experience scores, and more hours of total work experience. Larger farms were associated with less hours of off-farm work experience. Off-farm work experience makes up a considerably smaller proportion of total work experience than does farm work experience. A significant relationship was not found between hours of farm work with owned projects and size of home farm.

Summary

This chapter has presented findings in regard to work experiences of high school students of vocational agriculture. The first general hypothesis of the study, that there is a relation between work experiences engaged in by high school vocational agriculture students and selected characteristics of these students was accepted. Each of five selected student characteristics were found to be significantly associated with a majority of the five measures of work experience used.

Figure 1 on the following page shows where significant relations were found to exist between each of five selected characteristics of the students and each of the measures of work experience.

Significant relationships were reported for factors found to be significantly associated at the five per cent level of confidence when tested by the chi-square method. Relations where the level of confidence was as great as one per cent are indicated by an underlined yes in Figure 1.

Class in high school was found to be significantly related to three of the five measures of work experience used: (1) total hours of work experience, (2) composite farm work experience score, and (3) hours of work experience with owned projects. Class in high school was not found significantly related to the other two measures of work experience used: (1) hours of farm work experience, and (2) hours of off-farm work experience. However, for each of these two measures of work experience a higher percentage of upper classmen, juniors and seniors, than of freshmen and sophomores were found in the upper measurement categories.

Place of residence of the students was found to be significantly related at the one per cent level with each of the five measures of work experience used. Students residing on farms had higher scores in all measures of farm work experience and more non-farm students engaged in off-

Characteristic	Measure of Work Experience: Hours of Farm Work Experience	Hours of Farm Work Experience With Owned Projects	Composite Farm Work Experience Score	Hours Off-farm Work Experience	Total Hours Work Experience
Class in High School	NO	YES	YES	NO	YES
Place of Residence	YES	YES	YES	YES	YES
Father Operates Farm	YES	YES	YES	YES	YES
Father's Farming Status (full-time or part-time)	YES	NO	NO	YES	YES
Size of Farm	YES	NO	YES	YES	YES

FIGURE 1

RELATIONSHIPS BETWEEN WORK EXPERIENCES AND SELECTED CHARACTERISTICS OF HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE

YES - significant relation YES - significant at 1% NO - not significant

farm work experiences.

Father's operation of a farm was also found to be significantly related at the one per cent level to all five of the measures of work experience used.

Place of residence was inter-related with father's operation of a farm. Two hundred twenty-five of the students lived on farms and had fathers who operated farms. Thirty-one students lived on farms but did not have fathers who operated farms. Another twenty-seven students did not live on farms but had fathers who operated farms.

Students whose fathers operated farms engaged in more hours of farm work experience, more hours of work experience with owned projects, more total hours of work experience and had higher composite farm work experience scores than did the group of students whose fathers did not operate farms. The students whose fathers were not operators of farms engaged in more hours of off-farm work experience.

Significant relationships were found between whether father was a full-time or part-time farmer and three measures of work experience: (1) hours of farm work experience, (2) total hours of work experience, and (3) hours of off-farm work experience. Significant relationships were not found between whether father was a full-time or part-time farmer and either (1) hours of farm work experience with owned projects, or (2) composite farm work experience score.

Having a father who was a full-time farmer was found to be associated with an increased number of hours of both farm work experience and total work experience. The fact that the student's father was a full-time farmer was associated with a decreased number of hours of off-farm work experience.

Size of farm was also found to be significantly related to a majority of the measures of work experience. Students who had fathers who were full-time farmers tended to be the same group who came from the larger farms. Size of farm operation appears to be one of the more important factors associated with amount of farm work experience gained by the student. Both larger farms and having a father who was a full-time farmer were found to be positively associated with increased amounts of farm work experience. Size of students' home farms was found to be related to four of the five measures of work experience used. A significant relationship was not found between size of home farm and number of hours of work experience with owned projects. Larger size of farms was found to be related to more hours of farm work experience, higher composite farm work experience scores, more total hours of farm work experience, and less hours of off-farm work experience. No relationship was found between operation of a larger farm by the student's family and number of hours the student spent working with farm projects he owned.

Chapter VI which follows presents findings in regard to occupational plans and aspirations of students of high school vocational agriculture. A determination is made of relationships between students' occupational plans and aspirations and measures of work experiences engaged in by these students.

CHAPTER VI

FINDINGS RELATED TO OCCUPATIONAL CHOICES AND ASPIRATIONS

This chapter has as its purpose a determination of relationships existing between occupational choices and aspirations of high school students of vocational agriculture and work experiences of these students. A determination is made as to whether or not relationships exist between various occupational choice and aspiration characteristics of the youth studied and measures of work experience. The second general hypothesis of the study, that there is a relationship between work experiences engaged in by high school students of vocational agriculture and their occupational plans and aspirations is tested.

Occupational Choices Made by Students

Approximately three-fourths of the high school students of vocational agriculture in this study indicated that they had made an occupational choice. The occupational choices listed by the students as the ones they were most apt to enter were almost equally divided between agricultural and non-agricultural occupations. One hundred fifty-five indicated an agricultural occupation as the one they were most apt to enter and one hundred fifty-six indicated occupations which were of a non-agricultural nature. Almost three-fourths (71 per cent) of the students who chose

agricultural occupations listed farming as the occupation they were most apt to enter. Forty-five of the students listed agricultural occupations other than farming as ones they were most apt to enter.[1] This represents twenty-nine per cent of the students who chose agricultural occupations and eleven per cent of the total group of students in the study. Tables included in this chapter list both numbers and percentages. The percentage is given in parenthesis under each number.

Table XL compares the amount of farm work experience of those students who had made an occupational choice with the students who had not made occupational choices.

A relation was found between hours of farm work experience and whether or not the student had made an occupational choice. A higher percentage of the students in the highest category of hours of farm work (1800 hours or more) had made occupational choices than had the students in the lowest category, (less than 200 hours). The percentages of those who had made occupational choices were 82.3 per cent for the highest category of farm work experience compared with 57.4 per cent for those in the lowest category. For the two middle categories the percentages of those who had made occupational choices were 74.7 and 72.6 per cent.

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[1]Lists of both non-agricultural occupations and non-farm agricultural occupations chosen by the students are given in Appendix E.

Table XL

Relation Between Whether or not Occupational Choice Has Been Made and Hours of Farm Work Experience

Number Hours Farm Work Experience	Occupational Choice Made		
	No	Yes	Total
Under 200	20 (42.6)	27 (57.4)	47
200 to 999	39 (25.3)	115 (74.7)	154
1000 to 1799	34 (27.4)	90 (72.6)	124
1800 or over	17 (17.7)	79 (82.3)	96
Total	110 (26.1)	311 (73.9)	421 (100.0)

Chi-square = 10.2519 with three degrees of freedom; significant at five per cent level.

The relation between number of hours of farm work experience with owned projects and whether or not an occupational choice has been made is shown in table XLI.

No significant relationship was found between hours of farm work experience with owned projects and the students having made an occupational choice. However a slightly higher percentage of the students with the most work experience with owned propects (seventy-nine per cent) had made occupational choices compared with those with less than two

hundred hours of work experience (seventy-four per cent) and those with no work experience with owned projects (sixty-seven per cent).

Table XLI

Relation Between Whether or Not Occupational Choice Has Been Made and Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Occupational Choice Made		
	No	Yes	Total
None	42 (32.6	87 (67.4	129
1 to 199	36 (25.9)	103 (74.1)	139
200 and Over	32 (20.9)	121 (79.1)	153
Total	110 (26.1)	311 (73.9)	421 (100.0)

Chi-square = 4.9269 with two degrees of freedom; not significant.

A significant relationship was found between composite farm work experience score and whether or not an occupational choice had been made. The number of students having made occupational choice is shown in table XLII according to high, medium and low composite farm work experience scores.

Table XLII

Relation Between Whether or Not Occupational Choice Has Been Made and Composite Farm Work Experience Score

Composite Farm Work Experience Score	Occupational Choice Made		
	No	Yes	Total
20 and Below	41 (33.6)	81 (66.4)	122
21 to 40	42 (27.6)	110 (72.4)	152
41 and Above	27 (18.4)	120 (81.6)	147
Total	110 (26.1)	311 (73.9)	421 (100.0)

Chi-square = 8.2987 with two degrees of freedom; significant at five per cent.

High composite farm work experience scores are associated with students having made occupational choices. Eighty-two per cent of the students with high scores had made an occupational choice compared with seventy-two per cent of the students with medium scores and sixty-six per cent of those with low scores.

The number of students who had made occupational choices according to number of hours of off-farm work is presented in table XLIII on the following page.

Table XLIII

Relation Between Whether or Not Occupational Choice Has Been Made and Hours of Off-Farm Work Experience

Hours of Off-Farm Work Experience	Occupational Choice Made		
	No	Yes	Total
None	54 (29.2)	131 (70.8)	185
1 to 199	28 (25.0)	84 (75.0)	112
200 and Over	28 (22.6)	96 (77.4)	124
Total	110 (26.1)	311 (73.9)	421 (100.0)

Chi-square = 1.7518 with two degrees of freedom: not significant.

No significant relationship was found between occupational choice having been made by students and hours of off-farm work experience reported by them. Even though the difference was not large enough to be significant, slightly more of the students with larger amounts of off-farm work experience (seventy-seven per cent) had made occupational choices than had the students with fewer hours of off-farm work experience (seventy five per cent) or those with no off-farm work experience (seventy-one per cent).

The total number of hours of work experience engaged in by the students is shown in table XLIV according to whether or not they have made an occupational choice.

Table XLIV

Relation Between Whether or Not Occupational Choice Has Been Made and Total Hours of Work Experience

Total Hours of Work Experience	Occupational Choice Made		
	No	Yes	Total
Under 200	36 (33.3)	72 (66.7)	108
200 to 999	33 (23.1)	110 (76.9)	143
1000 to 1799	28 (29.5)	67 (70.5)	95
1800 or Over	13 (17.3)	62 (82.7)	75
Total	110 (26.1)	311 (73.9)	421 (100.0)

Chi-square = 7.1521 with three degrees of freedom; not significant.

These figures do not show a significant relation between total hours of work experience and an occupational choice having been made by the student. The percentages of

students who had made occupational choices according to category of hours of work experience were as follows: under 200 hours - 67 per cent, 200 to 999 hours - 77 per cent, 1000 to 1799 hours - 71 per cent, and 1800 or more hours - 83 per cent. It will be noted that the percentages of students who had made occupational choices are considerably higher for the highest category of hours of work experience than for the lowest category. Total hours of work experience, which is a combination of hours of farm and off-farm work experience, were not significantly related to students having made occupational choices. Farm work experience was found to be related to occupational choice having been made but the relation, when total hours of work experience was considered, appears to have been weakened by the effect of off-farm work experiences which were unrelated to occupational choice having been made.

The part of the second general hypothesis of the study, that there was a relation between work experience and whether or not an occupational choice had been made by the students was rejected. Significant relationships were found between only two of the five measures of work experiences used and whether or not an occupational choice had been made.

Even though this part of the hypothesis must be rejected there is some indication that having made an

occupational choice is associated with increased amounts of work experience and higher farm work experience scores. A higher percentage of the students in the highest category of work experience had made occupational choices than had students in the lowest work experience category for each of the five measures of work experience used in the study.

Students' Choice of Agricultural or Non-Agricultural Occupations

Relations between choice by students of agricultural or non-agricultural occupations and each of five measures of work experience is presented in the next five tables. The relation of hours of farm work experience to choice of an agricutural occupation is shown in table XLV.

The occupational choices of the 311 students in the study who indicated they had made decisions about their future occupations were almost equally divided between agricultural and non-agricultural occupations. One hundred fifty-five of the students designated an agricultural occupation and one hundred fifty-six named a non-agricultural occupation as the one they were most apt to enter.

A relation, significant at the one per cent level was found between hours of farm work experience and choice of an agricultural occupation. The percentage of students who expected to enter an agricultural occupation was highest in the group having the highest amount of farm work experience and lowest in the group with the lowest amount

of farm work experience. The percentages progressed from twenty-six per cent, in the lowest category of work, who chose agricultural occupations to thirty-eight per cent of those in the second, fifty-four of those in the third, and seventy per cent of those in the highest category of work experience.

Table XLV

Relation Between Occupational Choice and Hours of Farm Work Experience

Number Hours Farm Work Experience	Occupational Choice		
	Agricultural	Non-Agricultural	Total
Under 200	7 (25.9)	20 (74.1)	27
200 to 999	44 (38.3)	71 (61.7)	115
1000 to 1799	49 (54.4)	41 (45.6)	90
1800 or Over	55 (69.6)	24 (30.4)	79
Total	155 (49.8)	156 (50.2)	311 (100.0)

Chi-square = 25.4754 with three degrees of freedom; significant at one per cent level.

The relation between hours of farm work experience with owned projects and the choice of an agricultural occupation is shown in table XLVI below.

Table XLVI

Relation Between Occupational Choice and Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Occupational Choice		
	Agricultural	Non-Agricultural	Total
None	25 (28.7)	62 (71.3)	87
1 to 199	54 (52.4)	49 (47.6)	103
200 and Over	76 (62.8)	45 (37.2)	121
Total	155 (49.8)	156 (50.2)	311 (100.0)

Chi-square = 23.9132 with 3 degrees of freedom; significant at 1 per cent level.

A significant relationship was found between hours of farm work experience with owned projects and the choice of an agricultural occupation. Only twenty-nine per cent of the students who reported no farm work experience with owned projects expected to enter agricultural occupations. Fifty-

two per cent of the students with less than two hundred hours and sixty-three per cent of the students with two hundred or more hours of farm work experience with owned projects reported agricultural occupations as the ones they were most apt to enter.

The figures in table XLVII indicate that there is a positive relation between composite farm work experience score and a student's choice of an agricultural occupation.

Table XLVII

Relation Between Occupational Choice and Composite Farm Work Experience Score

Composite Farm Work Experience Score	Occupational Choice		Total
	Agricultural	Non-Agricultural	
20 and Below	30 (37.0)	51 (63.0)	81
21 to 40	49 (44.5)	61 (55.5)	110
41 and Above	76 (63.3)	44 (36.7)	120

Chi-square = 25.2792 with two degrees of freedom; significant at one per cent level.

A significant relation was found between hours of off-farm work experience and the choice of a non-agricul- occupation. Figures in table XLVIII indicate that the

experience gained by a student at off-farm work is associated with the choice of a non-agricultural occupation. Sixty-five per cent of the students who had engaged in two hundred or more hours of off-farm work experience chose non-agricultural occupations. Fifty-eight per cent of the students with less than two hundred hours of farm work experience and only thirty-four per cent of the students with no off-farm work experience chose non-agricultural occupations.

Table XLVIII

Relation Between Occupational Choice and Hours of Off-Farm Work Experience

Hours of Off-Farm Work Experience	Occupational Choice		
	Agricultural	Non-Agricultural	Total
None	86 (65.6)	45 (34.4)	131
1 to 199	35 (41.7)	49 (58.3)	84
200 and Over	34 (35.4)	62 (64.6)	96
Total	155 (49.8)	156 (50.2)	311 (100.0)

Chi-square = 23.3299 with two degrees of freedom; significant at one per cent level.

Table XLIX indicates that a relation exists between total hours of work experience and the choice of an agricultural occupation.

Table XLIX

Relation Between Occupational Choice and Total Hours of Work Experience

Total Hours of Work Experience	Occupational Choice		
	Agricultural	Non-Agricultural	Total
Under 200	18 (25.0)	54 (75.0)	72
200 to 999	45 (40.9)	65 (59.1)	110
1000 to 1799	44 (65.7)	23 (34.3)	67
1800 or Over	48 (77.4)	14 (22.6)	62
Total	155 (49.8)	156 (50.2)	311

Chi-square = 46.8732 with three degrees of freedom; significant at one per cent level.

Seventy-seven per cent of the students who reported 1800 or more hours of work experience for the year gave an agricultural occupation as the one they were most apt to

enter. Only twenty-five per cent of the students who experienced less than 200 hours of work during the year chose an agricultural occupation. However it must be remembered that a majority of the hours which make up the total hours of work experience of these students were spent at farm rather than off-farm work.

Increased total hours of work experience was associated with choice of an agricultural in preference to a non-agricultural occupation. Increases in the three measures of farm work experience, as well as total hours of work experience, were all accompanied by increased percentages of students who indicated they expected to enter an agricultural occupation. Increases in the number of hours of off-farm work experience were accompanied by higher percentages of the students who chose non-agricultural occupations.

Amounts of work experience engaged in by the students both on and off the farm were associated with such background factors as place of residence, father's occupation, and size of home farm. This would indicate that choice between agricultural and non-agricultural occupations is probably associated with each of these characteristics as well as measurements of work experience.

Students' Choice of Agricultural Occupations

One hundred fifty-five students indicated agricultural

occupations as the ones they were most apt to enter. One hundred ten of these students expected to enter farming and forty-five expected to enter non-farm agricultural occupations. Determinations of relations existing between the choice of farming or non-farm agricultural occupation and each of five measures of work experience are given in tables L to LIV.

Table L

Relation Between Agricultural Occupation Choice and Hours of Farm Work Experience

Number Hours Farm Work Experience	Occupational Choice		
	Farming	Non Farm Agricultural	Total
Under 200	4 (57.1)	3 (42.9)	7
200 to 999	27 (61.4)	17 (38.6)	44
1000 to 1799	37 (75.5)	12 (24.5)	49
1800 or Over	42 (76.4)	13 (23.6)	55
Total	110 (71.0)	45 (29.0)	155 (100.0)

Chi-square = 3.8974 with three degrees of freedom; not significant.

The number of students choosing farming and non-farm agricultural occupations according to number of hours of farm work experience is shown in table L.

The chi-square test did not indicate a significant relation between hours of farm work experience and the choice of farming or a non-farm agricultural occupation. However more of the students in the upper categories of hours of farm work chose farming than did the students in the lower. Seventy-seven per cent of the students who reported one thousand or more hours of work experience chose farming compared to sixty-one per cent of the students who reported less than one thousand hours of farm work experience.

Table LI shows the number of students choosing farming and non-farm agricultural occupations according to number of hours of work experience with owned projects engaged in during the past year.

Seventy-six per cent of the students who did more than two hundred hours of work with owned projects chose farming compared with seventy per cent of the students who did less than two hundred hours of work with owned projects, and only fifty-seven per cent of those students who reported no work experience with projects they owned. These differences were not large enough to show a significant relation between hours of farm work experience with owned projects and choice of farming or non-farm agricultural occupation

Table LI

Relation Between Agricultural Occupation Choice and Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Occupational Choice		Total
	Farming	Non Farm Agricultural	
None	14 (56.0)	11 (44.0)	25
1 to 199	38 (70.4)	16 (29.6)	54
200 and Over	58 (76.3)	18 (23.7)	76
Total	110 (71.0)	45 (29.0)	155 (100.0)

Chi-square = 3.7768 with two degrees of freedom; not significant

when checked by the chi-square technique.

The number of students who expect to enter farming and non-farm agricultural occupations according to composite farm work experience score is shown in Table LII.

A relation, significant at the one per cent level, was found between composite farm work experience score and choice of farming as an occupation.

A higher per cent of the students with high composite farm work experience scores than those with low scores

indicated farming as the occupation they were most apt to enter. The percentages of students choosing farming were seventy-nine per cent of the students with high composite farm work experience scores, seventy-three per cent for the students with medium scores and forty-seven per cent of the low score students.

Table LII

Relation Between Agricultural Occupation Choice and Composite Farm Work Experience Score

Composite Farm Work Experience Score	Occupational Choice		
	Farming	Non-Farm Agricultural	Total
20 and Below	14 (46.7)	16 (53.3)	30
21 to 40	36 (73.5)	13 (26.5)	49
41 and Above	60 (78.9)	16 (21.1)	76
Total	110 (71.0)	45 (29.0)	155 (100.0)

Chi-square = 11.0930 with two degrees of freedom; significant at one per cent level

Table LIII presents information in regard to agricultural occupation choices of students according to number

of hours of off-farm work experience. A relation was found between choice of farming or non-farm agricultural occupations and hours of off-farm work experience.

Table LIII

Relation Between Agricultural Occupation Choice and Hours of Off-Farm Work Experience

Hours of Off-Farm Work Experience	Occupational Choice: Farming	Occupational Choice: Non-Farm Agricultural	Total
None	69 (80.2)	17 (19.8)	86
1 to 199	25 (71.4)	10 (28.6)	35
200 and Over	16 (47.1)	18 (52.9)	34
Total	110 (71.0)	45 (29.0)	155 (100.0)

Chi-square = 13.0240 with three degrees of freedom; significant at one per cent level

Information in table LIII shows a positive relationship between an increased number of hours of off-farm work experience and the number of students who chose non-farm agricultural occupations in preference to farming. Only twenty per cent of the students who had engaged in no off-

farm work experience indicated a non-farm occupation as the one they were most apt to enter, compared with twenty-nine per cent of the students who had engaged in less than two hundred hours of off-farm work, and fifty-three per cent of those who had performed two hundred or more hours of off-farm work.

Choice of an agricultural occupation according to total hours of work experience is presented in table LIV. A significant relationship was found between choice of agricultural occupations (farming or non-farm agricultural) and total hours of work experience. The larger number of hours of work experience was associated with larger percentages of students who indicated farming as the occupation they were most apt to enter. The percentage of students choosing farming in preference to a non-farm agricultural occupation increased from forty-four per cent for those in the lowest category, to sixty-four per cent for those in the second category, seventy-seven per cent for the third, and eighty-one per cent for those students reporting the greatest total number of hours of work experience.

Total hours of work experience were found to be significantly related to choice between farming and non-farm agricultural occupations; even though hours of farm work experience, its largest component part, did not show a relation. When off-farm work experience was combined

with farm work experience to form a total, this total was related to choice between farming and non-farm agricultural occupations. This indicates that experience gained by the students from off-farm work was a more important factor than hours of farm work in relation to the student's choice between farming and non-farm agricultural occupations.

Table LIV

Relation Between Agricultural Occupation Choice and Total Hours of Work Experience

Total Hours of Work Experience	Occupational Choice		
	Farming	Non-Farm Agricultural	Total
Under 200	8 (44.4)	10 (55.6)	18
200 to 999	29 (64.4)	16 (35.6)	45
1000 to 1799	34 (77.3)	10 (22.7)	44
1800 or Over	39 (81.3)	9 (18.7)	48
Total	110 (71.0)	45 (29.0)	155 (100.0)

Chi-square = 10.3779 with three degrees of freedom; significant at five per cent level.

Three of the five measures of work experience were found to be significantly related to a student's choice between farming or a non-farm agricultural occupation.

Relations between two measures of work experience (hours of farm work experience and hours of farm work experience with owned projects) and choice of agricultural occupation were not found to be significant. However in these two measures the trend was the same with a higher percentage of the students who had the most hours of work experience choosing farming in preference to non-farm agricultural occupations.

In each of the three measures of farm work experience and for total hours of work experience larger percentages choosing farming were found among the groups with the largest amounts of work experience.

Increased amounts of off-farm work experience, on the other hand, was found to be associated with the likelihood of the student choosing an off-farm agricultural occupation rather than farming.

The part of the second general hypothesis of the study, that a relation exists between choice of farming or non-farm agricultural occupations was accepted.

Students' Choice of Non-Farm Occupations

Three hundred eleven students in this study had made occupational choices. One hundred ten of these students

listed farming as the occupation they were most apt to enter. The other two hundred and one students' occupational choices were divided into non-agricultural and non-farm agricultural occupations. One hundred fifty-six students listed non-agricultural occupations and forty-five listed non-farm agricultural occupations as the ones they were most apt to enter.

Chi-square tests were made to determine if relations existed between each of the five measures of work experience used in this study and students' choices of non-agricultural or non-farm agricultural occupations. None of these five tests revealed the existence of a significant relation.

Certainty of Occupational Choice

Student's certainty of occupational choice was classified into three categories; uncertain or no choice, fairly certain, and very certain. The classification was made on the basis of the student's expressed certainty of entering his chosen occupation. The chi-square test was used to determine whether or not significant relations existed between each of five measures of work experience and certainty of occupational choice.

Table LV shows the certainty of occupational choice of students according to number of hours of farm work experience.

Table LV

Relation Between Certainty of Occupational Choice and Hours of Farm Work Experience

Hours Farm Work Experience	Certainty of Occupational Choice			
	Uncertain or No Choice	Fairly Certain	Very Certain	Total
Under 200	42 (39.3)	47 (43.9)	18 (16.8)	107
200 to 999	44 (30.6)	67 (46.5)	33 (22.9)	144
1000 to 1799	32 (33.7)	41 (43.2)	22 (23.1)	95
1800 or Over	17 (32.1)	36 (45.4)	22 (22.5)	75
Total	135 (32.1)	191 (45.4)	95 (22.5)	421 (100.0)

Chi-square = 7.2430 with six degrees of freedom; not significant.

No significant relationship was found between hours of farm work experience and certainty of occupational choice. However figures in table LV show that the students with the most hours of farm work experience were more certain of their occupational choices than students with the least hours of farm work experience. Twenty-nine per cent of the

students with 1800 or more hours of work experience were very certain and twenty-three per cent uncertain or had made no occupational choice. Only seventeen per cent of the students with less than two hundred hours of farm work experience were very certain and thirty-nine per cent uncertain of their choice or had made no occupational choice.

The certainty of occupational choice according to number of hours of farm work experience with owned projects engaged in by students is presented in table LVI.

A relation, significant at the one per cent level, was found between hours of farm work experience with owned projects and certainty of occupational choice. The per cent of students who were very sure of entering their chosen occupations increased from eighteen per cent of those with no work experience with owned projects, to twenty-one per cent of those with less than two hundred hours, to twenty-eight per cent of those with two hundred or more hours of farm work experience with owned projects.

Forty-three per cent of the students who had no work experience with owned projects were uncertain or had made no occupational choice. This amount decreases to twenty-nine per cent in the middle category, and twenty-five per cent of the students in the uppermost category of two hundred or more hours. Increased work with projects owned by the students was positively associated with the students

Table LVI

Relation Between Certainty of Occupational Choice and Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Certainty of Occupational Choice			
	Uncertain or No Choice	Fairly Certain	Very Certain	Total
None	56 (43.4)	50 (38.8)	23 (17.8)	129
1 to 199	41 (29.5)	69 (49.6)	29 (20.9)	139
200 and Over	38 (24.8)	72 (47.1)	43 (28.1)	153
Total	135 (32.1)	191 (45.4)	95 (22.5)	421 (100.0)

Chi-square = 13.3931 with four degrees of freedom; significant at the one per cent level.

having made firm occupational choices.

Table LVII shows students' certainty of entering their chosen occupations according to composite farm work experience scores.

A significant relationship was found to exist between certainty of occupational choice and composite farm work experience score. Larger percentages of students who were very certain of entering their chosen occupation were found

among the students with high composite farm work experience scores and larger percentages of students who were uncertain of their choice or had made no choice were found among the group of students with low composite farm work experience scores.

Table LVII

Relation Between Certainty of Occupational Choice and Composite Farm Work Experience Score

Composite Farm Work Experience Score	Certainty of Occupational Choice			
	Uncertain or No Choice	Fairly Certain	Very Certain	Total
20 and Below	46 (37.7)	57 (46.7)	19 (15.6)	122
21 to 40	55 (35.7)	61 (39.6)	38 (24.7)	154
41 and Above	34 (23.5)	73 (50.3)	38 (26.2)	145
Total	135 (32.1)	191 (45.4)	95 (22.5)	421 (100.0)

Chi-square = 10.9760 with four degrees of freedom; significant at five per cent level.

Certainty of occupational choice according to hours of off-farm work experience engaged in by students is presented in table LVIII.

Table LVIII

Relation Between Certainty of Occupational Choice and Hours of Off-Farm Work Experience

Hours of Off-Farm Work Experience	Certainty of Occupational Choice			
	Uncertain or No Choice	Fairly Certain	Very Certain	Total
None	66 (35.7)	81 (43.8)	38 (20.5)	185
1 to 199	35 (31.3)	50 (44.6)	27 (24.1)	112
200 and Over	34 (27.4)	60 (48.4)	30 (24.2)	124
Total	135 (32.1)	191 (45.4)	95 (22.5)	421 (100.0)

Chi-square = 2.5748 with four degrees of freedom; not significant

No significant relation was found between hours of off-farm work experience and students' certainty of occupational choice when tested by the chi-square method. Whether or not a student engaged in off-farm work or the amount of off-farm work performed does not appear to be related to certainty on the part of the student that he would enter his chosen occupation.

Table LIX presents information concerning certainty

of occupational choice of students according to total hours of work experience engaged in by those students.

Table LIX

Relation Between Certainty of Occupational Choice and Total Hours of Work Experience

Total Hours Work Experience	Certainty of Occupational Choice			
	Uncertain or No Choice	Fairly Certain	Very Certain	Total
Under 200	23 (48.9)	21 (44.7)	3 (6.4)	47
200 to 999	51 (33.1)	70 (45.5)	33 (21.4)	154
1000 to 1799	39 (31.5)	53 (42.7)	32 (25.8)	124
1800 or Over	22 (22.9)	47 (49.0)	27 (28.1)	96
Total	135 (32.1)	191 (45.4)	95 (22.5)	421 (100.0)

Chi-square = 14.6576 with six degrees of freedom; significant at five per cent level

A significant relationship was found between total hours of work experience and certainty expressed by students of entering their chosen occupations. The percent-

age of students who were very certain of their occupational choices increased from six per cent of those in the lowest category of hours of work experience to twenty-eight per cent in the upper category. Percentages of students who had made no occupational choice or were uncertain of their choices decreased as number of hours of work experience increased. Forty-nine per cent of the students with under 200 hours of work experience had made no choice or were uncertain of their choice compared with only twenty-three per cent of the students with 1800 or more hours of work experience.

Total hours of work experience were found to be related to certainty of occupational choice; even though hours of neither farm work or off-farm work experience were found to be similarly related. A combination of these two types of work experience appears to be the important factor, rather than either measure alone, in relation to certainty of occupational choice.

The part of the second general hypothesis of the study, that a relation exists between work experience and certainty of occupational choice, was accepted. Three of the five measures of work experience used were found, when tested by the chi-square method, to be significantly related to certainty of occupational choice.

Occupational Levels of Aspiration

Occupational level of aspiration was determined for

each of the 311 students in the study who indicated an occupational choice. The occupation listed by the students, as the one they were most apt to enter, was classified by the North-Hatt scale of occupational prestige. Occupational level of aspiration was classified high (North-Hatt rating of 80 or above), medium (70 to 79) and low (below 70). According to this classification eleven per cent of these students had high, forty-nine per cent medium, and forty per cent low occupational aspirations.

Students who planned to farm were classified in the middle category of occupational aspiration. These students were also, for the most part, the ones who reported the most farm work experience. A higher percentage of the students who indicated non-farming occupations as the ones they were most apt to enter, are found in the lowest category of occupational aspiration.

Tests were made using the chi-square technique to determine if significant relationships existed between each of five measures of work experience and occupational level of aspiration as measured by the North-Hatt scale.

The students' occupational level of aspiration is shown in table LX according to the number of hours of farm work experience. Occupational level of aspiration was found to be related to number of hours of farm work experience at the one per cent level of significance. Occupa-

tional prestige ratings of seventy or above were found to be associated with increased number of hours of farm work experience. This appears to have been influenced by the

Table LX

Relation Between Occupational Level of Aspiration and Hours of Farm Work Experience

Number Hours Farm Work Experience	North-Hatt Rating of Occupational Choice			
	Below 70	70 to 79	80 or Above	Total
Under 200	43 (59.7)	25 (34.7)	4 (5.6)	72
200 to 999	52 (47.3)	42 (38.2)	16 (14.5)	110
1000 to 1799	18 (26.9)	41 (61.2)	8 (11.9)	67
1800 or Over	12 (19.3)	43 (69.4)	7 (11.3)	62
Total	125 (40.2)	151 (48.6)	35 (11.2)	311 (100.0)

Chi-square = 34.0341 with six degrees of freedom; significant at one per cent level.

fact that many of the students who chose farming as an occupation, also engaged in a large amount of farm work experience.

Occupational levels of aspiration of students are presented in table LXI according to number of hours of farm work experience with owned projects.

Table LXI

Relation Between Occupational Level of Aspiration and Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Occupational Choice - North-Hatt Rating			
	Below 70	70 to 79	80 or Above	Total
None	48 (55.2)	31 (35.6)	8 (9.2)	87
1 to 199	44 (42.7)	48 (46.6)	11 (10.7)	103
200 and Over	33 (27.3)	72 (59.5)	16 (13.2)	121
Total	125 (40.2)	151 (48.6)	35 (11.2)	311 (100.0)

Chi-square = 16.8751 with four degrees of freedom; significant at one per cent level.

The relation between students' occupational level of aspiration and hours of farm work experience with owned projects was found to be significant at the one per cent level. Increased percentages in the medium and high occu-

pational levels of aspiration were associated with increased amounts of farm work experience with owned projects.

Table LXII shows North-Hatt occupational level of aspiration ratings of students' chosen occupations according to composite farm work experience scores.

Table LXII

Relation Between Occupational Level of Aspiration and Composite Farm Work Experience Score

Composite Farm Work Experience Score	Occupational Choice - North-Hatt Rating			
	Below 70	70 to 79	80 or Above	Total
20 and Below	43 (53.1)	32 (39.5)	6 (7.4)	81
21 to 40	47 (42.7)	48 (43.7)	15 (13.6)	110
41 and Above	35 (29.2)	71 (59.2)	14 (11.6)	120
Total	125 (40.2)	151 (48.6)	35 (11.2)	311 (100.0)

Chi-square = 13.1486 with four degrees of freedom; significant at one per cent level.

When tested by the chi-square method the relation between occupational level of aspiration and composite farm work experience score was found to be significant at the

one per cent level. High composite farm work experience scores were found to be associated with high level of occupational aspiration and low composite farm work experience scores associated with low level of occupational aspiration.

Relation between occupational level of aspiration and hours of off-farm work experience is shown in table LXIII.

Table LXIII

Relation Between Occupational Level of Aspiration and Hours of Off-Farm Work Experience

Hours Off-Farm Work Experience	Occupational Choice - North-Hatt Rating			
	Below 70	70 to 79	80 or Above	Total
None	40 (30.5)	77 (58.8)	14 (10.7)	131
1 to 199	36 (42.9)	36 (42.9)	12 (14.2)	84
200 and Over	49 (51.0)	38 (39.6)	9 (9.4)	96
Total	125 (40.2)	151 (48.6)	35 (11.2)	311 (100.0)

Chi-square = 11.9847 with four degrees of freedom; significant at five per cent level.

A significant relationship was found between hours

of off-farm work experience and level of occupational aspiration among the students of vocational agriculture who had made occupational choices. A higher percentage of the students who engaged in the most hours of off-farm work experience had a low level of occupational aspiration rating. This appears to have been influenced by the large number of students in the middle category of occupational prestige who indicated farming as the occupation they expected to enter. The students who planned to farm had engaged in much less off-farm work than the students who planned to enter non-farm occupations.

Table LXIV presents information regarding the North-Hatt ratings of occupational choice and total hours of work experience of the students.

Occupational level of aspiration was found to be related to total hours of work experience, engaged in by the students, at the one per cent level. Total hours of work experience was divided, in table LXIV, into under 1000 hours and 1000 or more hours. The students were almost equally divided between these two categories with fifty-four per cent of the students reporting 1000 or more hours of work experience and forty-six per cent reporting less than 1000 hours. The group of students with 1000 or more hours of work experience had almost the same percentage in the high level of occupational aspiration, a higher percentage in the middle

level, and a smaller percentage in the low level of occupational aspiration than did those with 1000 hours or less of work experience.

Table LXIV

Relation Between Occupational Level of Aspiration and Total Hours of Work Experience

Total Hours of Work Experience	Occupational Choice - North-Hatt Rating			
	Below 70	70 to 79	80 or Above	Total
Under 1000	76 (53.5)	51 (35.9)	15 (10.6)	142
1000 or Over	49 (29.0)	100 (59.2)	20 (11.8)	169
Total	125 (40.2)	151 (48.6)	35 (11.2)	311 (100.0)

Chi-square = 20.2647 with two degrees of freedom; significant at one per cent level.

The total hours of work experience was made up to a large extent of hours of farm work experience. The relationship here as for relation with hours of farm work experience, appears to be influenced to a considerable degree by the choice of the one occupation (farming) and its association with large measurements of farm work experience.

The part of the second general hypothesis, that a relation exists between occupational level of aspiration and work experience, was accepted. All five measures of work experience were found to be significantly related to occupational level of aspiration when tested by the chi-square method.

Summary

This chapter presented findings in regard to relationships between work experiences engaged in by high school students of vocational agriculture and their occupational plans and aspirations. The second general hypothesis, that occupational choices and aspirations are related to work experience, could neither be completely accepted or completely rejected.

Figure 2 on the following page summarizes relations found between occupational choice characteristics and each of the five measures of work experience. A significant relation is indicated by yes and the absence of a relation by no.

Significant relations are figured at the five per cent level. Relations, where the level of confidence is as high as one per cent, are indicated by an underlined yes.

The following parts of the second general hypothesis of this study were accepted: A relation exists between work experiences of high school students of vocational agricul-

Measure of Work Experience	Occupational Choice Made	Occupational Choice Characteristic: Choice of Agricultural or Non-Agricultural Occupation	Choice of Farming or Non-Farm Agricultural Occupation	Choice of Non-Agricultural or Non-Farm Agricultural Occupation	Certainty of Occupational Choice	Occupational Level of Aspiration
Hours Farm Work Experience	YES	YES	NO	NO	NO	YES
Hours Farm Work Experience With Owned Projects	NO	YES	NO	NO	YES	YES
Composite Farm Work Experience Score	YES	YES	YES	NO	YES	YES
Hours Off-Farm Work Experience	NO	YES	YES	NO	NO	YES
Total Hours Work Experience	NO	YES	YES	NO	YES	YES

FIGURE 2

RELATIONSHIPS BETWEEN WORK EXPERIENCES AND OCCUPATIONAL CHOICES AND ASPIRATIONS OF HIGH SCHOOL STUDENTS OF VOCATIONAL AGRICULTURE

YES - significant relation YES - significant at 1% NO - not significant

ture and (1) student's choice of occupation, between agricultural and non-agricultural occupations; (2) student's choice of occupations between farming and non-farm agricultural occupations, (3) certainty of occupational choice, and (4) occupational level of aspiration.

The following parts of the second general hypothesis were rejected: A relation exists between work experience and (1) whether or not an occupational choice has been made and, (2) students choice between non-agricultural and non-farm agricultural occupations.

Increases in amounts of farm work experience were found to be associated with choice of agricultural occupations in preference to non-agricultural occupations.

Increases in amounts of farm work experience were found to be associated with choice of farming in preference to non-farm agricultural occupations for those students choosing an agricultural occupation. Increases in amounts of off-farm work were associated with choice of non-farm agricultural occupations in preference to farming.

Three of the five measures of work experience were found to be significantly related to certainty of occupational choice. In each of these three measures increased amounts of work experience were associated with increased certainty on the part of the students that they would enter the occupations of their choice.

No relations were found between any of the measures of work experience and preference between non-agricultural and non-farm agricultural occupations.

Increases in amounts of farm and total work experience were found to be associated with higher levels of occupational aspiration measured by the North-Hatt scale. Increased hours of off-farm work experience were associated with lower levels of occupational aspiration.

The higher level of occupational aspiration, of the students with the largest amounts of farm work experience, appears to be influenced to a considerable extent by the fact that many of these same students chose farming as an occupation.

Chapter VII which follows presents findings related to educational plans and aspirations of high school students of vocational agriculture. Determinations are made as to whether or not work experiences are related to educational plans and aspirational characteristics of these students.

CHAPTER VII

FINDINGS RELATED TO EDUCATIONAL PLANS AND ASPIRATIONS

This chapter presents findings in regard to whether or not relationships exist between work experiences of the high school students studied and their educational plans and aspirations. Tests were made to determine the existence of relations between each of five measures of work experience and (1) amount of consideration given to post high school educational plans, (2) plans to participate in post high school education, and (3) amount of post high school education planned. The third general hypothesis of the study, that work experience is related to educational plans of high school students of vocational agriculture, was tested.

Consideration Given to Post-High School Educational Plans

The consideration given by students to post-high school educational plans was determined from work experience schedules completed by the students. The students checked one of four categories of consideration: (1) none, (2) a little, (3) some, (4) a great deal. Ninety-two per cent of the students indicated they had given at least a little consideration to post-high school educational plans. Only eight per cent of the students reported they had given no consideration to post high school educational plans.

The students answering "none" and "a little" are combined in the following tables. A total of 126 (29.9 per cent) of the 421 students in the study had given little or no consideration to their post high school educational plans.

The consideration given by students to their post high school educational plans is shown in table LXV according to hours of farm work experience.

Table LXV

Amount of Consideration Given Post-High School Educational Plans According to Hours of Farm Work Experience

Hours of Farm Work Experience	Amount of Consideration Given Educational Plans			
	Little or None	Some	A Great Deal	Total
Under 200	32 (29.6)	48 (44.5)	28 (25.9)	108
200 to 999	41 (28.7)	52 (36.4)	50 (34.9)	143
1000 to 1799	23 (24.2)	45 (47.4)	27 (28.4)	95
1800 or Over	30 (40.0)	24 (32.0)	21 (28.0)	75
Total	126 (29.9)	169 (40.2)	126 (29.9)	421 (100.0)

Chi-square = 9.0839 with six degrees of freedom; not significant.

No significant relation was found between hours of farm work experience and amount of consideration the students had given to their post high school educational plans. The approximate percentages of the students who had given varying amounts of consideration to post high school educational plans were; little or none - thirty per cent, some - forty per cent, and a great deal - thirty per cent. The percentages reporting a great deal of consideration given to educational plans varied from a low of twenty-six per cent for those students doing less than two hundred hours of farm work to a high of thirty-five per cent of those with two hundred to nine hundred ninety-nine hours of farm work experience.

The amount of consideration given by students to their post high school educational plans according to hours of farm work experience with owned projects is presented in table LXVI.

The students who reported from 1 to 199 hours of farm work experience with projects they owned had given slightly more consideration to their post high school educational plans than had either the group of students who reported no work experience or those with 200 or more hours of work experience with owned projects. The percentages of the students giving a great deal of consideration to post high school educational plans were twenty-eight per

cent for those with none, thirty-three per cent for those with one to one hundred ninety-nine hours and twenty-nine per cent for those students with two hundred or more hours of farm work experience with owned projects. A significant relation was not found between hours of farm work experience with owned projects and amount of consideration given to post high school educational plans.

Table LXVI

Amount of Consideration Given Post High School Educational Plans According to Farm Work Experience With Owned Projects

Hours Farm Work With Owned Projects	Amount Consideration Given Educational Plans			
	Little or None	Some	A Great Deal	Total
None	40 (31.0)	53 (41.1)	36 (27.9)	129
1 to 199	36 (25.9)	57 (41.0)	46 (33.1)	139
200 and Over	50 (32.7)	59 (38.6)	44 (28.7)	153
Total	126 (29.9)	169 (40.2)	126 (29.9)	421 (100.0)

Chi-square = 2.0526 with four degrees of of freedom; not significant

Table LXVII below shows the amount of consideration given by the students to post high school educational plans according to composite farm work experience scores.

Table LXVII

Amount of Consideration Given Post High School Educational Plans According to Composite Farm Work Experience Score

Composite Farm Work Experience Score	Amount of Consideration Given Educational Plans			
	Little or None	Some	A Great Deal	Total
20 and Below	41 (33.6)	48 (39.4)	33 (27.0)	122
21 to 40	50 (32.9)	57 (37.5)	45 (29.6)	152
41 and Above	35 (23.8)	64 (43.5)	48 (32.7)	147
Total	126 (29.9)	169 (40.2)	126 (29.9)	421 (100.0)

Chi-square = 4.2547 with four degrees of freedom; Not significant.

The chi-square test did not reveal a significant relation between composite farm work experience score and amount of consideration given to post high school education plans. However a slightly higher percentage of the students with high composite farm work experience scores also had

given a great deal of consideration to their post high school educational plans. The percentages of students giving a great deal of consideration to post high school educational plans were twenty-seven per cent of those with low, thirty per cent of those with medium, and thirty-three per cent of those students with high composite farm work experience scores.

The amount of consideration given to post high school educational plans according to the number of hours of off-farm work experience is shown in table LXVIII on the following page.

Thirty-eight per cent of the students with two hundred or more hours of off-farm work experience reported that they had given a great deal of consideration to their post high school educational plans. Twenty-nine per cent of the students with less than two hundred hours of off-farm work experience and only twenty-five per cent of those with none reported a great deal of consideration given to their post high school educational plans. These differences were not large enough to show a significant relation between off-farm work experience and amount of consideration given to post high school educational plans when tested by the chi-square method.

Table LXVIII

Amount of Consideration Given Post-High School Educational Plans According to Hours of Off-Farm Work Experience

Hours Off-Farm Work Experience	Amount Consideration Given Educational Plans			
	Little or None	Some	A Great Deal	Total
None	63 (34.1)	76 (41.1)	46 (24.8)	185
1 to 199	31 (27.7)	48 (42.9)	33 (29.4)	112
200 and Over	32 (25.8)	45 (36.3)	47 (37.9)	124
Total	126 (29.9)	169 (40.2)	126 (29.9)	421 (100.0)

Chi-square = 6.8792 with four degrees of freedom; Not significant.

Table LXIX on the following page shows the amount of consideration given by the students to post-high school educational plans according to total hours of work experience.

No significant relation was found between total hours of work experience and amount of consideration the students had given to their post high school educational plans. Only seventeen per cent of the small group of students

Table LXIX

Amount of Consideration Given Post High School Educational Plans According to Total Hours of Work Experience

Total Hours Work Experience	Amount of Consideration Given Educational Plans			
	Little or None	Some	A Great Deal	Total
Under 200	14 (29.8)	25 (53.2)	8 (17.0)	47
200 to 999	46 (29.9)	60 (39.0)	48 (31.1)	154
1000 to 1799	32 (25.8)	53 (42.7)	39 (31.5)	124
1800 and Over	34 (35.4)	31 (32.3)	31 (32.3)	96
Total	126 (29.9)	169 (40.2)	126 (29.9)	421 (100.0)

Chi-square = 8.3802 with six degrees of freedom; not significant.

(forty-seven) who reported less than two hundred hours of work experience had given a great deal of consideration to their educational plans. Almost identical percentages of the other three groups of students reported a great deal of consideration given to post high school educational plans; thirty-one per cent of the students with 200 to 999 hours of work experience and thirty-two per cent of each of the two groups with the most hours of work experience.

The part of the third general hypothesis, that there was a relation between work experience and the amount of consideration given to post high school educational plans by high school students of vocational agriculture was rejected. Significant relations were not found between any of the five measures of work experience and amount of consideration the students had given to their post high school educational plans.

Plans to Participate in Post-High School Education

The high school vocational agriculture students in the study were asked if they planned to participate in any formal education or training beyond high school. Four hundred and nine of the four hundred twenty-one students in the study answered the question by checking: (1) positively yes, (2) probably yes, (3) probably not, or (4) positively not. The percentage of students checking each of these categories was as follows; positively yes - 20.0 per cent,

probably yes - 44.3 per cent, probably not - 28.4 per cent, and positively not - 7.3 per cent.

Students plans to participate in post high school education are shown in table LXX below according to hours of farm work experience.

Table LXX

Plans to Participate in Post High School Education According to Hours of Farm Work Experience

Hours Farm Work Experience	Plans to Participate in Post High School Education				
	Positively Not	Probably Not	Probably Yes	Positively Yes	Total
Under 1000	20 (8.2)	67 (27.3)	110 (44.9)	48 (19.6)	245
1000 or Over	10 (6.1)	49 (29.9)	71 (43.3)	34 (20.7)	164
Total	30 (7.3)	116 (28.4)	181 (44.3)	82 (20.0)	409 (100.0)

Chi-square = .9155 with three degrees of freedom; Not significant.

A significant relation was not found between students' plans to participate in post high school education and hours of farm work experience. The students who reported more than 1000 hours of farm work experience were divided

into the four categories of plans for participating in post high school education in almost exactly the same percentages as the students with less than 1000 hours of farm work experience. The plans of high school students for participating in post high school education are shown in table LXXI below according to number of hours of farm work experience with owned projects.

Table LXXI

Plans to Participate in Post High School Education According to Hours of Farm Work Experience With Owned Projects

Hours Farm Work With Owned Projects	Plans to Participate in Post High School Education				
	Positively Not	Probably Not	Probably Yes	Positively Yes	Total
None	12 (9.5)	32 (25.2)	52 (40.9)	31 (24.4)	127
1 to 199	9 (6.8)	41 (30.8)	54 (40.6)	29 (21.8)	133
200 and Over	9 (6.0)	43 (28.9)	75 (50.3)	22 (14.8)	149
Total	30 (7.3)	116 (28.4)	181 (44.3)	82 (20.0)	409 (100.0)

Chi-square = 7.9346 with six degrees of freedom; not significant.

The figures in table LXXI do not reveal a significant relation between plans to participate in post high school education and hours of farm work experience with owned projects. Fewer of the students in the highest category (14.8 per cent) answered positively yes than did the students in the middle category (21.8 per cent) or those with no farm work experience with owned projects (24.4 per cent).

Table LXXII below shows students' plans to partici- in post high school education according to composite farm

Table LXXII

Plans to Participate in Post High School Education According to Composite Farm Work Experience Score

Composite Parm Work Experience Score	Plans To Participate in Post High School Education				
	Positively Not	Probably Not	Probably Yes	Positively Yes	Total
20 and Below	9 (7.7)	33 (28.2)	56 (47.9)	19 (16.2)	117
21 to 40	14 (9.4)	48 (32.2)	55 (36.9)	32 (21.5)	149
41 and Above	7 (4.9)	35 (24.5)	70 (48.9)	31 (21.7)	143
Total	30 (7.3)	116 (28.4)	181 (44.3)	82 (20.0)	409 (100.0)

Chi-square = 7.6484 with six degrees of freedom; not significant.

work experience scores.

Students' plans to participate in post high school education were found not to be related to composite farm work experience scores when tested by the chi-square method. A slightly higher percentage of students with high composite farm work experience scores (70.6 per cent) indicated they would at least probably continue their education beyond high school than did students with medium scores (58.4 per cent) or with low scores (64.1 per cent)

Plans of students to participate in education beyond high school is shown in table LXXIII according to number of hours of off-farm work experience.

The percentages of the students who indicated they thought they would continue their education beyond high school by checking either probably yes or positively yes ranged from 70.2 per cent of the students with over two hundred hours to 63.6 per cent of those with less than two hundred hours, and 60.8 per cent of those with no off-farm work experience. These differences were not large enough to indicate the existence of a significant relation between plans to participate in post high school education and hours of off-farm work experience when tested by the chi-square method.

Table LXXIII

Plans to participate in Post High School Education According to Hours of Off-Farm Work Experience

Hours Off-Farm Work Experience	Plans to Participate in Post High School Education				
	Positively Not	Probably Not	Probably Yes	Positively Yes	Total
None	15 (8.3)	56 (30.9)	77 (42.6)	33 (18.2)	181
1 to 199	6 (5.6)	33 (30.8)	46 (43.0)	22 (20.6)	107
200 and Over	9 (7.5)	27 (22.3)	58 (47.9)	27 (22.3)	121
Total	30 (7.3)	116 (28.4)	181 (44.3)	82 (20.0)	409 (100.0)

Chi-square = 4.0282 with six degrees of freedom; not significant.

Plans of the students to participate in post high school education is shown in table LXXIV according to total amount of work experience they had engaged in during a one year period.

Students' plans to participate in post high school education were not found to be related to total hours of work experience.

Table LXXIV

Plans to participate in Post High School Education According to Total Hours of Work Experience

Total Hours Work Experience	Plans to Participate in Post High School Education				
	Positively Not	Probably Not	Probably Yes	Positively Yes	Total
Under 1000	17 (8.7)	56 (28.7)	87 (44.6)	34 (18.0)	195
1000 or Over	13 (6.1)	60 (28.0)	94 (43.9)	47 (22.0)	214
Total	30 (7.3)	116 (28.4)	181 (44.3)	82 (20.0)	409 (100.0)

Chi-square = 1.8192 with three degrees of freedom; not significant.

The two groups of students in table LXXIV were almost identical in their plans for education beyond high school. Sixty-six per cent of the students performing 1000 or more hours of work experience indicated they had plans for continuing their education beyond high school compared with sixty-three per cent of those working less than 1000 hours.

The part of the third general hypothesis, that plans to participate in post high school education are related to work experience, was rejected. None of the five measures of work experience used was found to be significantly related to students' post high school educational plans.

Amount of Post-High School Education Planned

The amount of post high school education planned by the students was determined from a question on the work experience schedules. The students were asked to check "none,"less than four years," or "four or more years" to indicate what was most apt to be the extent of their post high school education. Four hundred of the students answered the question and are included in the following discussion.

Approximately one-third (34.3 per cent) of the students planned no post high school education. Two hundred sixty-three of the students indicated that they planned some post high school education. One hundred eighty, which was over two-thirds of the students planning post-high school education, indicated that their post high school education was most apt to be less than four years.

Table LXXV presents the amount of post high school education planned by the students according to number of hours of farm work experience.

No signifncant relationship was found between amount of post high school education planned by the students and hours of farm work experience. The students in the highest category of farm work experience (1800 or more hours) planned to participate in slightly less post high school education than the other groups of students. Information has been presented in chapter VI which indicates a relation between

Table LXXV

Amount of Post High School Education Planned According to Hours of Farm Work Experience

Hours of Farm Work Experience	Amount of Post High School Education Planned			
	None	Less Than 4 Years	4 or More Years	Total
Under 200	31 (31.0)	52 (52.)	17 (17.0)	100
200 to 999	50 (35.5)	57 (40.4)	34 (24.1)	141
1000 to 1799	30 (33.0)	40 (43.9)	21 (23.1)	91
1800 or Over	26 (38.2)	31 (45.6)	11 (16.2)	68
Total	137 (34.3)	180 (45.0)	83 (20.7)	400 (100.0)

Chi-square = 4.3691 with six degrees of freedom; not significant.

hours of farm work experience and choice of farming as an occupation. This suggests at least the possiblilty of an association between plans to farm and plans for less post high school education.

The amount of post high school education planned by the students according to the number of hours they spent

working with farm projects they owned is shown in table LXXVI below.

Table LXXVI

Amount of Post High School Education According to Hours of Farm Work Experience With Owned Projects

Hours Farm Work Experience With Owned Projects	Amount of Post High School Education Planned			
	None	Less Than 4 Years	4 or More Years	Total
None	42 (35.9)	52 (44.4)	23 (19.7)	117
1 to 199	40 (29.4)	67 (49.3)	29 (21.3)	136
200 and Over	55 (37.4)	61 (41.5)	31 (21.1)	147
Total	137 (34.3)	180 (45.0)	83 (20.7)	400 (100.0)

Chi-square = 2.5077 with four degrees of freedom; not significant.

A chi-square test did not indicate any relation between amount of post high school education planned by the students and hours of farm work experience with projects they owned. Almost identical percentages of each of the three categories, according to number of hours of work experience with owned projects, planned to complete four

or more years of post high school education.

The amount of post high school education planned by the students according to their composite farm work experience scores is shown in table LXXVII.

Table LXXVII

Amount of Post High School Education Planned According to Composite Farm Work Experience Score

Composite Farm Work Experience Score	Amount of Post High School Education Planned			
	None	Less Than 4 Years	4 or More Years	Total
20 and Below	41 (35.6)	57 (49.6)	17 (14.8)	115
21 to 40	55 (37.2)	64 (43.2)	29 (19.6)	148
41 and Above	41 (29.9)	59 (43.1)	37 (27.0)	137
Total	137 (34.3)	180 (45.0)	83 (20.7)	400 (100.0)

Chi-square = 6.5781 with four degrees of freedom; not significant.

As with the two measures of work experience previously tested no relation was found between amount of post high school education and composite farm work experience scores. Twenty-seven per cent of the students with high

composite farm work experience scores planned on four or more years of post high school education in comparison with twenty per cent with medium and fifteen per cent with low scores. These differences were not great enough to be significant when tested by the chi-square method.

The amount of post high school education planned by the students according to the number of hours of off-farm work experience is shown in table LXXVIII.

Table LXXVIII

Amount of Post High School Education Planned According to Hours of Off-Farm Work Experience

Hours of Off-Farm Work Experience	Amount of Post High School Education Planned			
	None	Less Than 4 Years	4 or More Years	Total
None	69 (39.7)	74 (42.5)	22 (17.8)	174
1 to 199	33 (30.8)	52 (48.6)	22 (20.6)	107
200 and Over	35 (29.4)	54 (45.4)	30 (25.2)	119
Total	137 (34.3)	180 (45.0)	83 (20.7)	400 (100.0)

Chi-square = 5.0746 with four degrees of freedom; not significant.

Hours of off-farm work, just as the other three measures of farm work experience, were found to be unrelated to amount of post high school education planned by the students. Table LXXVIII shows that a slight increase in percentage of students planning four or more years, and a decrease in percentage of those planning no post high school education, occurred with increased amounts of off-farm work. The differences thus noted in the table are not large enough to indicate a significant relation.

Post high school educational plans of the high school students of vocational agriculture are shown in table LXXIX according to total number of hours of work experience.

No relation was found between total hours of work experience and amount of education planned. Figures in table LXXIX shows that the small group of students (44) who reported less than 200 hours of farm work experience planned less post high school education than the students in the other categories. Each of the three categories of students with 200 and more hours of farm work experience had almost the same percentages who planned to participate in each of the amounts of post high school education. Each of the component parts of total hours of work experience, farm work experience and off-farm work experience, were also found unrelated to amount of post high school education planned. None of the five measures of work experience was

Table LXXIX

Amount of Post High School Education Planned According to Total Hours of Work Experience

Total Hours Work Experience	Amount of Post High School Education Planned			
	None	Less Than 4 Years	4 or More Years	Total
Under 200	19 (43.2)	22 (50.0)	3 (6.8)	44
200 to 999	47 (32.0)	65 (44.2)	35 (23.8)	147
1000 to 1799	38 (31.7)	56 (46.7)	26 (21.6)	120
1800 or Over	33 (37.1)	37 (41.6)	19 (21.3)	89
Total	137 (34.3)	180 (45.0)	83 (20.7)	400 (100.0)

Chi-square = 7.1042 with four degrees of freedom; not significant.

found to be significantly related to amount of post high school education planned by the students.

Summary

This chapter has presented findings in regard to post high school educational plans of the students of high school vocational agriculture studied. Chi-square tests were made

to determine whether or not post high school educational plans measured by; (1) amount of consideration given to post high school plans, (2) plans to participate in post high school education, and (3) amount of post high school education planned; were related to each of five measures of work experience. None of the measures of work experience was found to be significantly related to any of the measures of post high school educational plans. The third general hypothesis of the study, that a relation exists between post high school educational plans and work experience, was rejected.

Chapter VIII which follows presents a summary and conclusions of this study.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

This study had as its purpose a determination of work experiences engaged in by high school students of vocational agriculture and their relationship to the students' occupational and educational plans and aspirations. The study was limited to an eight county dairy and general farming area in south central Michigan. It was also limited to a few selected measures of work experience and to selected aspects of students' occupational and educational plans and aspirations.

Method and Procedure

Data for the study were collected during May, 1962 by personal visits to each of ten high school departments of vocational agriculture. The ten schools were selected at random from all schools in the designated area with high school departments of vocational agriculture. A total of 421 high school students of vocational agriculture completed work experience schedules which were used in the study.

Five measurements of work experience were used in the study as follows: (1) hours of farm work experience, (2) hours of farm work experience with owned projects, (3) composite farm work experience score, (4) hours of off-farm work experience, and (5) total hours of work experience. All measures of work experience applied to work performed

by the students for a twelve month period immediately preceding the date of completing the work experience schedules.

The composite farm work experience score was developed and used in this study. It was a composite score determined by combining the following four work experience scores; (1) amount of farm work, (2) variety of farm work, (3) management responsibility, and (4) self appraisal of competency. Each of these four farm work experience scores was developed by having the student rate himself on a four point scale in each of ten areas of farm work.

Occupational choice and aspirational characteristics of the students were classified as follows: (1) whether or not an occupational choice had been made, (2) occupations chosen by students (classified as farming, non-farm agricultural, or non-agricultural occupations), (3) certainty of occupational choice, and (4) level of occupational aspiration (based on rating of occupational choice by North-Hatt rating scale of occupational prestige).

Educational plans and aspirational characteristics of the students were classified according to (1) amount of consideration given to educational plans, (2) plans to participate in post high school education, and (3) amount of post high school education planned.

Information from the work experience schedules was compiled, classified, and punched on I.B.M. cards. Frequency counts were made from the I.B.M. cards of all com-

binations of variables considered important to the study. Chi-square was used to determine the existence of relationships between (1) work experience and background characteristics of the students, (2) occupational plans and aspirational characteristics and measures of work experience, and (3) educational plans and aspirational characteristics and measures of work experience. The five per cent level of probability was used to determine significant relationships.

Characteristics of the Youth Studied

This study was based on information provided by students of high school vocational agriculture representing all four high school classes (grades nine through twelve). Sixty-three per cent had families who operated farms. The average size of the home farms of the 264 students whose families had farms was 138.6 acres. Approximately forty-five per cent of the farms operated by students' families were less than 100 acres in size, thirty per cent were between 100 and 199 acres and twenty-five per cent were 200 acres or larger.

Most of the students' families owned the farms they operated. Almost three-fourths (72.3 per cent) owned all of the land they farmed. An additional 22.7 per cent owned a part of the land in their farms. Less than five per cent of the families operating farms owned none of the land they operated. Fathers of fifty-nine per cent of the students were farm operators. Thirty-eight per cent of the students had fathers who were part-time farmers and twenty-one per

cent of them had fathers who were full-time farmers. Fathers of the other forty-one per cent were non-farmers.

Findings of the Study

Work Experience Almost all of the students had engaged in some type of work experience during the preceding year. Ninety-seven and four-tenths per cent reported that they had engaged in work experience. Ninety-one and four-tenths per cent had participated in farm work experiences. In addition to working on farms many of these high school vocational agriculture students also engaged in off-farm work experiences. Over one-half (56.1 per cent) reported off-farm work experiences. Approximately one-half (50.1 per cent) had engaged in both farm and off-farm work experiences.

The median student in the study engaged in more than 1000 hours of work experience during the year. Fifty-two and two-tenths per cent reported 1000 or more hours of work experience. One thousand hours is approximately equivalent to a one-half time year-around job. Almost one-fifth (18.8 per cent) reported 2000 or more hours of work experience in the one year period.

The first general hypothesis of the study stated that work experiences were related to selected characteristics of high school students of vocational agriculture. Chi-square tests were used to determine existence of relationships between each of five measures of work experience and each of the following student characteristics, (1) class in high

school, (2) place of residence, (3) farm operation by father, (4) farming status of father, and (5) size of the home farm.

The hypothesis was accepted. Significant relationships were found between each of the five student characteristics and a majority of the five measures of work experience used.

Three of the five measures of work experience were found to be significantly related to class in high school. A significant relation was not found between either hours of farm work experience or hours of off-farm work experience and class in high school. Even though no significant relation was found to exist between class in high school and either of these two measures of work experience more of the upper classmen (juniors and seniors) than of the lower coassmen (freshmen and sophamores) were found in the upper categories in each of these two measures of work experience. However, when hours of farm and off-farm work experience were combined into a total, this total hours of work experience was significantly related to class in high school. Advancement from one high school class to the next was found to be related to more hours of farm work experience with projects owned by the students, more total hours of work experience, and higher composite farm work experience scores.

All five measures of work experience were found to be significantly related to the student's place of residence. Students living on farms engaged in more hours of farm work,

more hours of farm work with owned projects, more total hours of work and had higher composite farm work experience scores than did the boys who did not live on farms. Students who did not live on farms engaged in the most hours of off-farm work experience.

Operation of a farm by a student's father was found significantly related to all five of the measures of work experience in the study. Having a father who was a farmer was related to increased amounts of all measures of farm work experience and a decrease in hours of off-farm work.

Operation of a farm by the student's father was interrelated to place of residence as most of the students who lived on farms also had fathers who operated farms. Two hundred forty-nine of the students had fathers who operated farms. One hundred sixty were part-time and eighty-three full-time farmers. Having a father who was a full-time farmer was found to be significantly related to more hours of farm work experience, more total hours of work experience, and less hours of off-farm work experience. No relation was found between having a father who was a full or part-time farmer and either composite farm work experience score or hours of farm work with owned projects.

Significant relationships were found between four of the five measures of work experience and size of farm. Students from larger farms engaged in both more hours of farm

work and more total hours of work. They also had higher composite farm work experience scores. Students from smaller farms engaged in more hours of off-farm work experience. No relation was found between size of farm and number of hours of work by the student with farm projects he owned. Size of farm was inter-related with time father spent farming. Students from larger farms tended to be the ones whose fathers were full time farmers.

Occupational Choices and Aspirations The second general hypothesis of the study, that work experiences were related to students' occupational plans and aspirations could not be either completely accepted or completely rejected.

The following parts of the hypothesis were accepted: A relation exists between work experiences of high school students of vocational agriculture and (1) student's choice between agricultural and non-agricultural occupations, (2) student's choice between farming and non-farm agricultural occupations, (3) certainty of occupational choice, and (4) occupational level of aspiration.

The following parts of the hypothesis were rejected: A relation exists between work experiences of high school students of vocational agriculture and (1) whether or not the student has made an occupational choice, and (2) student's choice between non-agricultural and non-farm agricultural occupations.

Three hundred eleven of the students reported that they had made occupational choices. Approximately ninety-two per cent of these students were fairly or very certain of entering their chosen occupations. Certainty of entering the chosen occupation was found to be significantly related to three of the five measures of work experience used.

Students' planned occupations were classified as (1) farming, (2) non-farm agricultural, or (3) non-agricultural occupations. Chi-square tests showed significant relations between a majority of the five measures of work experience and also between farming and non-farm agricultural occupations. Increased measures of amounts of farm work experience were related to choice of agricultural in preference to non-agricultural occupations.

Significant relations were not found between any of the measures of work experience and the student's choice between non-farm agricultural and non-agricultural occupations.

Occupational level of prestige was measured by North-Hatt rating of the student's occupational choice. North-Hatt ratings were divided into three groups, high - 80 and above, medium - 71 to 79, and low - 70 or below. Eleven per cent of the students who had made occupational choices had high, forty-nine per cent medium, and forty per cent low levels of occupational aspiration according to this classification.

All five measures of work experience were found to be significantly related to occupational level of aspiration. In all measures of farm work experience larger amounts of work experience were associated with higher levels of occupational aspiration. Larger amounts of off-farm work were found to be associated with lower level of occupational aspiration. This appears to have been influenced by the fact that the students choosing farming were, for the most part, the same ones who engaged in large amounts of farm work experience and not much off-farm work.

Educational Plans The third general hypothesis of the study, that post high school plans of high school students of vocational agriculture are related to work experience, was rejected. Each of five measures of work experience was tested for relation with each of the following: (1) amount of consideration given to post high school educational plans, (2) plans to participate in post high school education, and (3) amount of post high school education planned. None of the measures of work experience was found to be related to any one of the three educational plan characteristics.

Most of the students had given some degree of consideration to post high school educational plans. Twenty-nine and nine-tenths per cent indicated they had given a great deal, forty and two-tenths per cent had given some consider-

ation, twenty-one and nine-tenths per cent had given little, and eight per cent no consideration to their post-high school educational plans.

Two hundred sixty-three of the students expected to participate in post high school education. One hundred eighty (68.4 per cent) of them expected their post high school education to be less than four years and eighty-three (31.6 per cent) expected their post high school education to be four or more years.

Conclusions

The following conclusions were drawn based on the findings of the study. These conclusions apply to high school students of vocational agriculture in the area of this study and the time that it was made. It is realized that findings such as those reported in this study are subject to a number of factors which may vary with time and place.

1. Work experiences in which a high school student of vocational agriculture engages is related to a number of various characteristics including: (1) class in high school, (2) place of residence, (3) father's operation of a farm, (4) amount of time father spends farming, and (5) size of home farm. Students who lived on farms, who had fathers that spent more time farming, and who lived on larger farms were found in the present study to engage in larger amounts of farm work experience and smaller amounts of off-farm work

experience.

2. There is a wide variation in work experiences gained by high school students of vocational agriculture. Some students in the present study were participating in many hours of work experiences while others reported little or no work experience for a one-year period.

3. There is an association between the work experience that a student gains while in high school and his choice of an occupation. Increased amounts of farm work experience were found in the present study to be associated with choice of farming and agricultural occupations in preference to non-agricultural occupations. Off-farm work experiences were found to be associated with choice of non-agricultural or non-farm agricultural occupations in preference to farming. Cause and effect were not established in these relationships. It is not known which, if either factor, may be the cause of the other.

4. Occupational level of aspiration is related to work experiences engaged in by high school students of vocational agriculture. Increased amounts of farm work experience were found in the present study to be associated with higher level of occupational aspiration measured by the North-Hatt scale.

5. Work experiences engaged in by high school students of vocational agriculture have no influence on the student's post-high school educational plans. None of five measures

of work experience used in this study was found to be related to either (1) amount of consideration given to educational plans, (2) probability of participating in post-high school education, or (3) amount of education planned.

Implications of the Study

The following implications are presented based on the findings and conclusions of this study and interpreted in light of opinions, beliefs and philosophy of the writer.

1. Consideration needs to be given to the individual needs of students in vocational agriculture from a variety of backgrounds and with varying opportunities for work experiences. Students of vocational agriculture have varying opportunities for work experiences. Many students now enrolled in high school vocational agriculture do not live on farms. Wide variation in the amounts of work experience engaged in by high school students of vocational agriculture was found in the present study. If one subscribes to the philosophy that vocational education should be offered to all high school students who want, need, and can profit from such instruction then increased consideration needs to be given to meeting effectively the needs of students with varying backgrounds, opportunities, and interests.

2. The composite farm work experience score developed and used in this study appears to have value as an instrument for measuring the work experiences of students of vocational

agriculture. The composite work experience scores were associated with more of the occupational choice characteristics than any other measure of work experience used in the study. The refinement and validation of such a work experience score would result in a helpful tool for use by teachers of vocational agriculture in evaluating farm work experiences of students.

3. Farm work experience with owned projects has a positive association with choice of agricultural occupations, certainty of occupational choice, and occupational level of aspiration. High school students from small farms, and those operated on a part-time basis, have opportunities to gain adequate work experience with owned projects. No relation was found in the present study between hours of farm work with owned projects and either size of farm or whether father was a full-time or part-time farmer.

4. High school students of vocational agriculture who spend large numbers of hours doing farm work are as likely to plan to continue their education beyond high school as students who do less work. In the present study no significant relation was found between any of five measures of work experience and post-high school educational plans. This implies that many students of high school vocational agriculture will continue their education beyond high school and that success as a student of vocational agriculture is not

necessarily related to termination of formal education at the high school level.

5. Consideration should be given to off-farm as well as farm work experiences in planning work experience programs for high school students of vocational agriculture. In the present study a number of students reported off-farm work experiences which were related to their future occupational plans. If one accepts the philosophy that meeting the needs of and helping an individual develop within the limits of his potentiality are important functions of the school then it is implied that consideration should be given to any work experience which will help the individual towards that development.

6. Work experiences engaged in by high school students of vocational agriculture are related to environmental factors. Students in this study who lived on farms, had fathers who were farmers, and came from larger farms, engaged in more work experience than did the non-farm students or those whose fathers were not farmers, or who came from smaller farms. The non-farm students engaged in more off-farm work but in much less total work than did farm students. Consideration needs to be given to providing an opportunity for all high school students of vocational agriculture to engage in meaningful work experiences.

7. Consideration needs to be given to the effects on academic

achievement of long hours of work engaged in by high school students of vocational agriculture. Approximately one-fifth of the students in the present study reported working amounts equivalent to a full-time job during the preceding year. A majority of the students reported 1000 or more hours of work experience.

Suggestions for Further Study

The following general suggestions of needed studies are made on the basis of findings of the present study and experiences gained in conducting it:

1. Additional occupational choice studies need to be made to more clearly determine the factors influencing choice of agricultural occupations.

2. Follow-up studies need to be made of work experiences in relation to occupational choice. Many follow-up studies have been made of occupations of former students of vocational agriculture. Additional follow-up studies are needed to determine possible relationships between work experiences and occupational plans while in high school and occupational success.

3. Some studies have been made, but more are needed in the requirements of workers in agricultural occupations. Research also needs to be conducted in methods and procedures of training for these occupations.

4. The present study has shown the existence of a

relationship between work experience and occupational choice. Some studies in greater depth to determine cause and effect relationships are suggested.

5. Research needs to be conducted to determine the effects of long hours of out-of-school work engaged in by high school students of vocational agriculture on academic achievements.

6. Studies need to be conducted to determine relationships between students' occupational plans and aspirations and their educational plans.

7. Research, similar to the present study, of work experiences of students of vocational agriculture and their relationships to occupational and educational plans needs to be made to: (1) include wider geographical areas, and (2) cover longer periods of time than was possible with the present study.

8. Some studies to determine the values of specific kinds of work experiences in preparation of workers for agricultural occupations are suggested.

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APPENDICES

APPENDIX A

List of Schools

School	Number of Students	Voc. Agri. Teacher
Concord	23	Benjamin A. Miller
Durand	46	Roy W. Wallis
Hartland	42	John D. Anibal
Ionia	28	Marvin E. Cress
Jackson	67	Warren Parsons
Jackson Northwest	56	Lawrence Rubeck, Jr.
Leslie	47	Russell J. Miller
Morrice	36	Douglas Ferrier
Perry	47	James Potter
Webberville	29	Walter C. Search

APPENDIX B

Instructions to High School Vocational Agriculture Classes for Completing Work Experience Schedules

First let me introduce myself. I am Homer Judge. At the present time I am a graduate student and assistant instructor at Michigan State University. I am doing research work for a Doctor's Degree in the College of Education. My research study is about work experiences of high school students of vocational agriculture and their relation to occupational and educational plans of those students. I hope that the results of this research will aid in planning and developing more effective educational programs to meet the needs of young people in tomorrow's agriculture.

Your department of vocational agriculture is one of ten which has been selected and which I am visiting to collect data for my study. I am asking each of you to help me in this study by filling out a work experience survey form. The success of my study depends on you giving me complete answers to the questions on this form. Please read all questions carefully and answer them completely.

Please observe these points in completing the schedules:

(1) All questions in regard to work experiences apply to the past year. This means the last twelve

months before today.

(2) Work Experience are divided into farm and off-farm work. Farm work means any work performed on any farm. It includes work for neighbors as well as on your home farm. Off-farm work includes all work performed at locations other than on a farm.

(3) Under item 20 report all farm work done during the past twelve months.

(4) Under item 21 report that part of the farm work you did during the past year with projects owned by you only.

(5) Under item 28 report all off-farm jobs at which you have worked during the past twelve months.

(6) Please answer all items on the schedule.

(7) If there are any questions feel free to ask them.

(8) I will check your schedule with you for completeness when you have it filled out.

I thank all of you for your assistance in this study.

APPENDIX C

WORK EXPERIENCE SCHEDULE

1. Name _____ Age _____

2. High School Class: Freshman___ Sophomore___ Junior___ Senior_____

3. Is this your 1st__ 2nd__ 3rd__ 4th__ year of vocational agriculture?

4. Do you live on a farm? Yes__ No__

5. What is the total number of acres in your family's farm? _____

6. Does your family own: All the land in the farm _____

Part of the land in the farm_____

None of the land in the farm_____

7. Is your father's principal occupation farming? Yes___ No___

8. If your father does any work other than farming describe what he does in his job._____

9. What part of your father's working time is spent working on a farm? Full time___ More than ½time___ Between ¼ and ½ time___ Less than ¼ time___ None___.

10. What was the highest school grade completed by each of your parents? Circle highest grade completed by father and mother.

	Grade School	High School	College
Father	1 2 3 4 5 6 7 8	9 10 11 12	1 2 3 4
Mother	1 2 3 4 5 6 7 8	9 10 11 12	1 2 3 4

11. What is your family's net cash income? Check one of the following:

Under $2,000. ___$2,000. to $3,999.___$4,000. to $5,999.___

$6,000. to $7,999. ___$8,000 to $9,999.___$10,000. or more ___

12. What is your parents' attitude concerning your continued education beyond high school?

A. Insist that I continue ____

B. Would like for me to continue ____

C. Don't care ____

D. Don't want me to continue ____

13. Is your high school grade average: A___B___C___Below C___?

14. Have you made any occupational choice? Yes___No___.

15. If you have made an occupational choice list below the occupation which you think you are most apt to enter._____.

16. How certain are you of entering the occupation you listed above?

Very certain___Fairly certain___Fairly uncertain___Very uncertain___.

17. How much consideration have you given to education or training plans after high school? A great deal ___ Some ____

A little ___ None ____

18. Do you plan to participate in any formal educational or training program beyond high school?

Positively yes___ Probably yes ____

Positively not___ Probably not____

19. Is your educational or vocational training beyond high school most apt to be: None___Education or training less than four years____

Four or more years____.

Please account for all work experience you have had during the past 12 months in answering the following questions.

20. What is the total amount of time you have worked on a farm or farms during the past 12 months?

A. Number of weeks worked: During summer___During school term___

B. Average number hours worked per week:

During summer___During school term___

21. What is the total amount of time spent working with productive enterprise projects owned by you? (This will be part of the time included in question 20 above.)

A. Number of weeks worked: During summer___During school term____

B. Average number hours worked per week:

During summer___During school term____

22. Below are listed 10 areas of farm work. Circle one of the numbers following each area to indicate amount of work done in the area during the past year.

AREA OF WORK	AMOUNT OF WORK DONE			
	No Work	Small Amount	Considerable	Much Work
Field Crop Production	0	1	2	3
Vegetable or Small Fruit Production	0	1	2	3
Soil and Water Conservation	0	1	2	3
Tree Fruit Production	0	1	2	3
Poultry	0	1	2	3
Dairy	0	1	2	3
Beef Cattle, Hogs, and Sheep	0	1	2	3
Forestry	0	1	2	3
Farm Mechanics	0	1	2	3
Farm Management	0	1	2	3

24. Circle one of the numbers following each of the 10 areas of farm work listed below to indicate the variety of different farm jobs done in each of the areas.

AREA OF WORK	VARIETY OF JOBS DONE			
	No Work	Few Jobs	Considerable No.	Many Jobs
Field Crop	0	1	2	3
Soil and Water Conservation	0	1	2	3
Vegetable or Small Fruit Production	0	1	2	3
Tree Fruit Production	0	1	2	3
Poultry	0	1	2	3
Dairy	0	1	2	3
Beef Cattle, Hogs, and Sheep	0	1	2	3
Forestry	0	1	2	3
Farm Mechanics	0	1	2	3
Farm Management	0	1	2	3

25. Circle one of the numbers following each of the 10 areas of farm work listed below to indicate the management decisions made by you in each work area.

AREA OF WORK	MANAGEMENT DECISIONS I MADE			
	None	Few	Considerable	Most
Field Crop Production	0	1	2	3
Soil and Water Conservation	0	1	2	3
Vegetable or Small Fruit Production	0	1	2	3
Tree Fruit Production	0	1	2	3
Poultry	0	1	2	3
Dairy	0	1	2	3
Beef Cattle, Hogs, and Sheep	0	1	2	3
Forestry	0	1	2	3
Farm Mechanics	0	1	2	3
Farm Management	0	1	2	3

26. Circle one of the numbers following each of the 10 areas of farm work below to indicate your ability to perform the various jobs in each area.

AREA OF WORK	No Ability	A Little	Considerable	Much
Field Crop Production	0	1	2	3
Soil and Water Conservation	0	1	2	3
Vegetable or Small Fruit Production	0	1	2	3
Tree Fruit Production	0	1	2	3
Poultry	0	1	2	3
Dairy	0	1	2	3
Beef Cattle, Hogs, and Sheep	0	1	2	3
Forestry	0	1	2	3
Farm Mechanics	0	1	2	3
Farm Management	0	1	2	3

27. Have you done any off-farm work during the past year? Yes ___No ___

28. List all off-farm jobs at which you have worked during the past year.

1._____ 2._____

3._____ 4._____

5._____ 6._____

FILL OUT ONE OF THE FORMS BELOW FOR EACH OFF-FARM JOB

Name of job_____

Kind of business_____

Received pay for job: Yes___ No___

Number of weeks worked at job during summer___school term___

Number of hours worked per week during summer___school term___

Describe exactly what you did_____

_____

Name of job_____

Kind of business_____

Received pay for job: Yes___ No___

Number of weeks worked at job during summer___school term___

Number of hours worked per week during summer___school term___

Describe exactly what you did_____

_____

(ask for additional forms as needed to fill out one form for <u>each</u> off-farm job.)

APENDIX D

Amount of Farm Work Scores

Score	Number of Students	Per cent
0	26	6.2
1 - 3	60	14.2
4 - 6	65	15.4
7 - 9	87	20.7
10 - 12	92	21.9
13 - 15	49	11.6
16 - 18	29	6.9
19 and Above	13	3.1
Total	421	100.0

Mean Score = 8.6

APPENDIX D - continued

Variety of Farm Work Scores

Score	Number of Students	Per cent
0	30	7.1
1 - 3	63	15.0
4 - 6	79	18.8
7 - 9	81	19.2
10 - 12	75	17.8
13 - 15	53	12.6
16 - 18	27	6.4
19 and Above	13	3.1
Total	421	100.0

Mean Score = 8.3

APPENDIX D - continued

Management Responsibility Scores

Score	Number of Students	Per cent
0	68	16.2
1 - 3	89	21.1
4 - 6	87	20.7
7 - 9	73	17.3
10 - 12	59	14.0
13 - 15	23	5.5
16 - 18	17	4.0
19 and Above	5	1.2
Total	421	100.0

Mean Score = 6.1

APPENDIX D - continued

Self Appraisal of Competency Scores

Score	Number of Students	Per cent
0	24	5.7
1 - 3	50	11.9
4 - 6	50	11.9
7 - 9	63	15.0
10 - 12	80	19.0
13 - 15	65	15.4
16 - 18	52	12.3
19 and Above	37	8.8
Total	421	100.0

Mean Score = 10.2

APPENDIX D - continued

Composite Farm Work Experience Scores

Score	Number of Students	Per cent
10 or Below	64	15.2
11 - 20	58	13.8
21 - 30	69	16.4
31 - 40	83	19.7
41 - 50	72	17.1
51 - 60	40	9.5
Above 60	35	8.3
Total	421	100.0

Mean Score = 32.9

APPENDIX E

Off-Farm Agricultural Occupations Students Expected to Enter

Occupation	Number of Students
Agricultural Engineer	3
Agricultural Scientist	1
Agriculture Teacher	4
Animal Husbandryman	1
Conservation	6
Dairy Plant Operation	2
Farm Machinist	1
Forestry	8
Floriculture	2
Landscaping	3
Livestock and Grain Trucker	1
Management of Horses	4
Orchard Work	1
Veterinarian	3
Total	45

APPENDIX E - continued

Non-Agricultural Occupations Students Expected to Enter

Occupation	Number of Students
Accountant	4
Architect	1
Armed Forces	26
Artist	3
Barber	8
Beauty Operator	1
Biologist	1
Bookkeeper	1
Carpenter	5
Construction Worker	2
Cook	1
Dentist	1
Doctor	3
Draftsman	3
Electrician	1
Electronics	3
Engineer	12
Factory Worker	2
Fireman	1
Flyer	1
Real Estate	1
Resturant Operator	1

APPENDIX E - continued

Occupation	Number of Students
Salesman	3
School Teacher	4
Scientist	1
Secretary	3
Sheet Metal Worker	1
Shop Worker	2
Skin Diver	1
State Police	4
Stock Car Driver	1
Store Manager	1
Grocer	1
Gunsmith	1
Heavy Equipment Operator	3
Highway Survey Work	1
Laborer	1
Mason	1
Mathmetician	2
Mechanic	22
Minister	2
Model	1
Nurse	1
Office Worker	1
Optical Worker	1

APPENDIX E - continued

Occupation	Number of Students
Peace Corps	1
Physical Education or Coaching	4
Professional Sports	3
Truck Driver	4
Tool and Die Worker	1
Welder	1
Writer	1
Total	156