

RELATIONSHIP OF THE NUMBER OF STUDENTS  
ENROLLING IN AGRICULTURE IN OKLAHOMA  
UNIVERSITIES AND COLLEGES TO THE  
DEGREE OF AGRICULTURE-RELATED  
CAREER INFORMATION PROVIDED  
BY OKLAHOMA VOCATIONAL  
AGRICULTURE TEACHERS

By

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## CHAPTER I

### INTRODUCTION

Agriculture is a dynamic and challenging industry. The present generation of Americans has viewed agriculture's growth from a "straw hat and pitchfork" way of life to a vast complex of agriculture-related occupations.

Approximately six percent of the nation's population live and work on farms. But one-third of the total working force is engaged in agriculture-related jobs--the manufacturing, processing, distribution, transportation, buying, selling, research, management, financing, testing, and advertising of agricultural products. Thousands of new job holders are needed each year to fill the openings in these occupations.

The nation is recognizing that agriculture is more than farming and that a rewarding, pleasing life awaits those who seek a career in agriculture. Young men and women with energy, enthusiasm, and training in agriculture are needed to accept the challenges of this rapidly expanding segment of our society.

Oklahoma highschool vocational agriculture students are the most abundant state-wide source of young manpower to meet agriculture's needs. Are these potential future

leaders of the agricultural industry aware of the tremendous opportunities in agriculture-related careers? Their vocational agriculture teachers can provide a partial answer to the question because they are the students' prime source of agriculture career information.

Oklahoma's vocational agriculture youth need adequate, up-to-date career information to help them in making one of life's most monumental decisions--what they will do in the world of work.

Are they receiving this information?

#### Importance of the Study

Vocational educators are being called upon to provide more career information to school-age youth. This information is not only helpful to youth but to society as a whole. The expanding complexity of today's economy is continually increasing the occupational needs of industry.

Education for the world of work has suddenly become a part of the main stream of education. The Vocational Education Act of 1963 stated that allotted funds could be used for vocational education in any occupation involving knowledge and skills in agricultural subjects, both on-farm and off-farm. Rapid advances in technology and production have caused many changes in the agriculture industry. One important change has been an increase in the number of people needed in the marketing of farm products and in providing the materials and services needed by farmers and ranchers.

New job opportunities have been created in agriculture-related occupations.

Vocational agriculture teachers share an obligation with other vocational educators--the obligation to provide adequate, updated career information to aid students in the process of occupational decision making. This obligation demands even more of the vocational agriculture teacher. He must also provide personal vocational counseling and advice to the extent of his background and training. He must make a sincere effort to improve himself in his vocational teaching role by continually adding to his knowledge of career subject areas and to his awareness of his students' personal needs.

#### Statement of the Problem

The problem stated briefly: Is agriculture college enrollment of vocational agriculture students related to the degree of agriculture-related career information provided by their vocational agriculture teachers?

#### Purpose of the Study

The major purpose of the study is to determine the level of agriculture career information taught and its effect on the college plans of Oklahoma high school vocational agriculture students. The questionnaire results will establish the basis for conclusions and recommendations which will hopefully improve the understanding of the

relationship between the degree of information taught and agriculture college enrollment.

### Objectives of the Study

In line with the purpose of the study, the objectives of the study are:

1. To focus the attention of Oklahomans to the awareness that the broad area of agriculture encompasses both farming and the vast field of agriculture-related occupations, and that it offers employment opportunities and economic rewards to young people with agricultural backgrounds and training.

2. To determine the percentage of high school vocational agriculture graduates who will enroll in agriculture in college.

3. To determine the degree of agriculture-related career information taught by vocational agriculture teachers.

4. To determine whether a relationship exists between the degree of agriculture career information taught and the number of graduates enrolling in agriculture in college.

5. To determine whether vocational agriculture teachers have up-to-date information on agriculture-related careers.

6. To gather opinions concerning the desirability of training for teachers in means and methods of guidance counseling in agriculture career opportunities.

## Definitions of Terms

It will be beneficial to the reader to have specific words and phrases clarified. Definitions of the following terms are necessary for proper understanding of their usage and relation to this study.

Agriculture-related career. This is commonly interpreted as any occupation (job) directly connected with the manufacturing, processing, distribution, transportation, buying, selling, research, management, marketing, financing, testing, and advertising of agricultural products. The author's personal definition of an agriculture-related career is any occupation (job) involved in the transforming of a raw agricultural product (wheat, timber, milk, etc.) into one of its final forms (such as bread, pressure-treated fence posts, and ice cream).

Degree. As it is used in the title, "degree" refers to the amount and extent of agriculture-related career information as categorically measured by the questionnaire instrument.

Graduates. Oklahoma vocational agriculture students who graduated from their respective high schools in 1969 will be designated as "graduates" for the purposes of this study.

VAOT. Vocational Agriculture Occupational Training (VAOT) is a program for high school juniors and seniors which emphasizes both classroom instruction and on-the-job training in agriculture-related occupations.

## CHAPTER II

### REVIEW OF THE LITERATURE

The status of the individual must remain our primary concern. All our institutions--political, social, and economic--must further enhance the dignity of the citizen, promote the maximum development of his capabilities, stimulate their responsible exercise, and widen the range and effectiveness of opportunities for individual choice (1).

The individual with whom we are concerned in this study is the high school vocational agriculture graduate who may enroll in college and choose to major in agriculture. If he so chooses, then there must be both employment opportunities and economic rewards available to him upon graduation.

#### Availability of Agriculture-Related Careers

The question is posed, "Are agriculture-related career opportunities awaiting young people with college degrees in agriculture?" The review of research supports an affirmative answer to this question.

Richardson and Edington (2) stated that an important change in agriculture has been the increase in the number of people needed to supply the farmer with needed services and goods and to market his products. This change has brought about new job opportunities in farm related occupations. Four out of every ten jobs in private employment are related

to agriculture according to the United States Department of Agriculture (3). Results of annual placement surveys by the North Central Region of the Association of State Universities and Land-Grant Colleges show the ratio of job offers per college graduate in agriculture was as follows:

<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
1.80	1.70	2.05	2.02	1.97

Business and industry can use more men than graduate in agriculture each year, and they turn to other schools such as business administration for the people they need. The important fact is that the demand exceeds supply (4).

How have demand and supply compared in Oklahoma? Stevenson (5) identified 1,879 off-farm agricultural businesses in Oklahoma. Of this number he interviewed 719 (38 percent). He found that the annual need for professional college trained agricultural workers in the 719 businesses and service agencies interviewed was estimated to be about four hundred per year.<sup>1</sup>

A recent issue of U. S. News and World Report (6) brought to light the economic rewards available to agriculture college graduates. It stated that starting salaries of graduates of colleges of agriculture continue to rise. A survey covering 14 state universities in the Midwest shows

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<sup>1</sup>Author's note: Assuming the above-mentioned "professional college trained agricultural workers" are agricultural college graduates, Oklahoma is producing less than two-fifths of the graduates that it needs each year. Oklahoma colleges and universities graduate fewer than 400 persons annually with degrees in agriculture.

the 1969 graduates in agriculture averaged \$649 a month for those receiving bachelor's degrees (\$7,788 per year), \$802 monthly for master's graduates (\$9,624 per year), and \$1,063 monthly for Ph.D's (\$12,756 per year). The overall average represented an increase of 5.5 percent compared with a year ago.

### Awareness of Career Opportunities

Another question immediately arises, "Are vocational agriculture students aware of the agriculture-related occupational opportunities and salaries that are available?" Regan and Thompson (7) concluded that agriculture students view college as a preparation for a vocation.

But do they view college as a preparation for an agriculture-related vocation?

Kimbal and Kersting (8) stated that the image of vocational agriculture among the general public today is outdated and inaccurate. Parents and guidance counselors often have steered interested and qualified students away from vocational agriculture programs on the assumption that agriculture was at best an unrewarding, dead-end occupation. A large segment of the public does not envision American agriculture as a complex industry.

Burchinal (9) suggested that rural youth have a lack of awareness and perception of nonfarm occupational roles and a lack of knowledge of nonfarm occupations and that these variables may depress the occupational aspirations of the



youth. Eaddy (10) stated that occupational information is not readily available to the majority of students. His study involving vocational agriculture students revealed that only 35 percent of the students indicated they had been advised on occupational plans by their teachers.

Carpenter (11) noted the most frequently listed suggestion for improving teachers' and other adults' counsel to students on educational plans is that more up-to-date information is needed on specific opportunities in agriculturally related fields.

Oklahoma vocational agriculture students may be just as unaware of agriculture-related career opportunities and salaries as their fellow students are across the nation. Lu and Tweeten (12) compiled data from a state-wide survey of plans of Oklahoma high school seniors in 1967, of which the total number of farm boys who responded was 1,217. They indicated that farm youth are not adequately informed about schooling and job opportunities. Farm boys choosing to enter nonfarm occupations often are unaware of the entrance requirements and monetary and non-monetary returns for different occupations.

In presenting programs on agriculture-related career opportunities in Oklahoma high schools and in discussions with vocational agriculture students, Kusel (13) found that most students were surprised to learn that agriculture offers so many opportunities for young people who want careers in agriculture. More than two-thirds of the

counselors (who were visited) did not have up-to-date material on agriculture-related career opportunities.

In a study of junior and senior vocational agriculture students in Lincoln, Logan, and Payne counties in Oklahoma, Simpson (14) concluded that vocational agriculture teachers need to emphasize the selection of educational and occupational objectives and help students direct their efforts and work toward a realization of that objective. Simpson recommended that vocational agriculture teachers should give much more attention to effectively supplying occupational information so that the student can have a better idea what he wants to do.

A. U. S. Department of Labor official summed up the situation bluntly when he stated there is a sad lack of information about job opportunities in agriculture and agribusiness. Many high school students who could find rewarding careers in professional agriculture are not aware of the excellent opportunities that follow education in a good college of agriculture--the demands for well-trained agricultural specialists in business, education, and government are far above the supply (15).

#### Attitudes Toward College

What are the attitudes of vocational agriculture students concerning college?

Evidence indicated that a majority of the employees in the non-farm agricultural occupations are working in jobs

for which post high school education in agriculture and in certain other subjects is appropriate. But the research has established rather conclusively that enrollees in vocational agriculture both aspire to and plan to attend college in lesser proportions than do other male students in the school (16).

Lipset (17) concluded that the level of occupational achievement of farm-reared persons in a complex non-farm labor market is considerably lower than that reached by others. He attempted to explain this by noting: (a) that rural people have relatively little access to colleges and universities; (b) that rural people go to relatively poor high schools; and (c) that rural people encounter relatively few occupational alternatives. Consequently, he proposed that farm youth aspire to relatively low occupations and are not ambitious for the higher education they must seek if they are to rise in an urban society.

Lu and Tweeten (12) found that Oklahoma vocational agriculture students do not fit the mold into which they have been characterized by the previous two paragraphs. The Oklahoma State University researchers found that lower college aspirations and plans are not true of Oklahomans. The data on the survey of 14,861 high school senior boys in Oklahoma indicated that 77 percent of farm boys plan to go to college, whereas 70 percent of nonfarm boys were so inclined!

In a study of 1,213 students in 27 vocational agricul-

ture departments in Oklahoma, Kusel (18) attempted to determine the number who planned to attend a college or university. Of the total number of students who planned to further their education after high school, 74 percent stated they wished to do so at a college or university.

The literature supports the contention that a high percentage of Oklahoma vocational agriculture students seek education beyond the high school level. A question is posed, "Are the students who attend college enrolling in the field of agriculture?"

Enrollment trends in the College of Agriculture at Oklahoma State University have differed somewhat from nationwide agriculture enrollment trends since 1963. Undergraduate enrollment in agriculture in the National Association of State Universities and Land-Grant Colleges (19) increased 50 percent from 1963 to 1969. Agriculture enrollment at Oklahoma State University (O.S.U.) increased 34 percent during the same period. Of the 68 member institutions of the association, O.S.U. ranked seventh in undergraduate agricultural enrollment in 1963. In 1965 O.S.U. rose to fifth. In 1967 O.S.U. fell to sixth. O.S.U. dropped to a tie for ninth rank in 1968 and ranked ninth in 1969.

Enrollment at O.S.U. outstripped nationwide enrollment from 1963 to 1965. Beginning in 1966 however, O.S.U.'s enrollment did not keep pace with nationwide enrollment. In 1966 and 1967 the nationwide enrollment increased by 13.8 percent, while enrollment at O.S.U. increased by 5.5 per-

cent. The figures for 1968 were most surprising--nationwide enrollment was up by 5.5 percent and O.S.U. enrollment decreased 2.1 percent. O.S.U. rebounded in 1969 with an increase of 3.3 percent, but this did not match the nationwide increase of 4.1 percent.

The agriculture enrollment report of the National Association of State Universities and Land-Grant Colleges also provided information for comparisons with other member institutions. Total and percentage increases in enrollment from 1963 to 1969 for schools in surrounding states as compared to O.S.U. are shown in Table I. The combined total increase for the surrounding schools was 61 percent.

TABLE I  
INCREASES IN AGRICULTURE ENROLLMENT AT SELECTED  
INSTITUTIONS 1963-1969

Institution	Enrollment		Percentage Increase
	1963	1969	
New Mexico State University	414	862	118
Kansas State University	720	1378	91
Texas A&M University	1027	1809	76
University of Arkansas	272	457	68
University of Missouri	969	1617	67
OKLAHOMA STATE UNIVERSITY	1168	1569	34
Texas Technological College	937	1240	32
Colorado State University	610	714	19

The literature cited previously reports that a high percentage of Oklahoma vocational agriculture students aspire to and plan to attend college, but that agriculture enrollment nationwide and in surrounding institutions has increased faster than enrollment at Oklahoma State University.

#### Contribution of Vocational Agriculture to Student Success

Since the individual with whom we are concerned is the vocational agriculture student and his later relationship to an agricultural college, an almost overlooked question falls into line, "Is the study of vocational agriculture in high school helpful in preparing students for college and for agriculture-related careers?"

From 1960 to 1966 studies were conducted in 11 states relating to success in college of former enrollees of vocational agriculture. The findings of those studies show conclusively that persons who have studied agriculture in high school achieve as well as or slightly better in college than students who have not studied agriculture in high school. The studies also indicate that a higher percentage of the students entering colleges of agriculture who had studied agriculture in high school graduated from college than comparable students who had not been previously enrolled in high school courses in agriculture (16).

Bender and Pierce (20) stated that there was no statistically significant difference between students who had

taken vocational agriculture in high school and students who had not in the mean cumulative point-hour ratio. Vocational agriculture students were successful in the College of Agriculture. Vocational agriculture students also did as well as other students in the College of Arts and Sciences, Commerce, Education, and Engineering.

Pumper and Sledge (21) found that the vocational agriculture student achieved at a higher level in agronomy and animal husbandry than non-vocational agricultural students. It was concluded that vocational agriculture experiences provided adequate background training for students enrolling in the college of agriculture. It was further concluded that vocational agriculture experiences were related to the student's college success.

In a study of 605 freshmen students enrolled in Oklahoma institutions of higher education offering substantial work in agriculture, Bruton (22) found that first year agricultural college students' scores on an animal science proficiency test increased in proportion to high school education in vocational agriculture. Vocational agriculture education contributed to the student's knowledge and understanding of animal science.

Graduates who had studied vocational agriculture in high school were just as successful or more successful in entering and advancing in the non-farm agriculturally-oriented businesses and industries as graduates who had not studied vocational agriculture in high school (16).

Responsibility of the Vocational Agriculture  
Teacher in Career Development

Does the vocational agriculture teacher have a responsibility to help make his students aware of agriculture-related career opportunities?

Kent (23) stated it is a duty of the high school vocational agriculture teacher to make his students aware of the opportunities in the professions and occupations of the agricultural industry.

Baker (24) stated that guidance is a basic responsibility of the teacher, and that the role of the teacher is vital in career development. He further stated the vocational agriculture teacher should be vitally interested in the vocational guidance of his students. Baker recommended an "educative approach" for vocational guidance. This approach is the process of assisting the student to understand both himself and the occupational world. The growth of the individual must be the chief focus of this learning process.

Super (25) stated the vocational counselor's task is to help a person formulate an adequate idea of himself, and to find a role appropriate to the kind of person he conceives himself to be and seeks to become. Fisher (26) maintained that guidance is the full-time employment of vocational agriculture teachers.

It was concluded by Venn (27) that sound occupational



choice is made in direct proportion to information, guidance, and opportunity available to the individual. To help youth in their occupational choices, he recommended that occupational guidance and counseling should begin in the intermediate grades and continue through all levels of education.

The President's Panel of Consultants on Vocational Education (28) stated that a lack of knowledge of available vocational opportunities generally exists among students. Occupational information and vocational guidance are very important for young people as they progress through school and make choices related to their vocations.

In the introduction to his booklet on job title profiles in off-farm agriculture occupations in Oklahoma, Stevenson (29) stated it is hoped that vocational agriculture teachers will make agricultural occupations information available to guidance and counseling personnel within their respective schools in order that students may become more familiar with opportunities in the field of agricultural business.

#### Influence of the Vocational Agriculture Teacher

The consensus of the previously cited literature is that there is a lack of knowledge of agriculture-related career opportunities among students. The question arising next is, "Who should attempt to correct the student's lack of knowledge of agriculture-related career opportunities?"

Investigations which attempted to identify and analyze factors influencing pupils to attend college and study agriculture emphasized the merits of instruction in agriculture in high schools.

Eaddy (10) stated high school youth need help in choosing occupations. Moreover, vocational teachers rank next to parents in influencing the career choices of youth. Vocational educators are in a unique position to direct and assist students with career decisions. They could be extremely beneficial in assisting students in career development.

The studies of pupils enrolled in agriculture in college were rather consistent in indicating that, other than parents, the person most influential regarding their decision to attend college was their teacher of vocational agriculture in high school (16).

Strait's (30) comparison of students who were studying agriculture in college with students of similar background who were majoring in fields other than agriculture revealed the following factors as influential in a pupil's decision to study agriculture: (a) enrollment in vocational agriculture in high school; (b) the understanding that agriculture is not just farming; (c) more knowledge about careers available to agriculture graduates; and (d) the belief that many more agricultural workers will be needed in the years ahead.

Lu and Tweeten (12) concluded that vocational agriculture teachers can do more to inform their students of the

requirements and opportunities in alternative occupations. Telwar (31) stated that counselors, advisors, and other high school personnel ranked high as a factor influencing the selection of a major by freshmen, sophomore, junior, and senior students at Oklahoma State University.

In a study of factors influencing college students' choice of a major, Freeh (32) found that farm youth majoring in agriculture ranked their vocational agriculture teacher high as an influencing factor. Farm youth in non-agricultural majors ranked their vocational agriculture teacher very low as an influencing factor in the selection of their college major.

The time in senior high school is the period when students' interests and plans begin to crystallize into acceptable and satisfying goals. The individual student's needs are concerned with the selection of goals that are more specific than before, and help is needed in making these decisions concerning the selection of goals and the implementation of the plans for attaining these goals. The teacher provides maximum opportunities for the well-rounded development of the student. The classroom teacher is the frontline person in the guidance program. In meeting his guidance responsibilities the teacher should integrate occupational and educational information into the student's appropriate subject-matter field (33).

Bentley and Hemp (34) found that freshmen college students who were enrolled in agriculture were influenced by

the study of vocations in high school vocational agriculture. In another study, Bentley and Hemp (35) stated that students were also influenced by teachers of agriculture and by reading materials. This indicated the desirability of providing students with appropriate information regarding agricultural occupations.

Occupational information is available in many and varied fields. The teacher may utilize a letter or postcard to obtain much free or inexpensive occupational materials for students, and the student should be encouraged to make use of this material (33).

Eaddy (10) stated that vocational agriculture teachers should supply specific occupational information to students which would not otherwise be available through general guidance activities in the school.

Freeh (32) stated that agricultural careers publications should be made readily available to high school students. He concluded that vocational agriculture courses and F.F.A. programs should be structured so as to provide youth with an accurate and thorough understanding of the career opportunities in agriculture.

Should vocational agriculture teachers prepare themselves professionally so they may provide the guidance and information in agriculture-related careers that is needed by their students?

Key (36) stated that teachers of agriculture need a thorough knowledge of many different occupations and how

occupations relate to different individuals.

Kusel (37), in informal interviews with Oklahoma vocational agriculture teachers, concluded that teachers were more inclined to advise students about career opportunities in occupations with which the teacher was familiar, rather than advise students about careers in which the teacher had little or no knowledge.

Eaddy (10) suggested that vocational agriculture teachers should take every opportunity to become professionally and technically prepared to provide occupational counseling to high school students.

Elliot (38) summed up the situation appropriately as he stated:

Because of technical advances, production agriculture is as important as ever, but we need to include courses for those not directly associated with the farm.

We still have a place; we must not sell ourselves short or let the educational process leave us by the wayside. We must try to keep the good that we have had in our programs and still add new areas to meet the challenges and changes required in an effective program today.

#### Summary and Analysis of the Review

This is the author's interpretation of the literature that has been cited in this chapter.

1. Agriculture-related career opportunities and adequate salaries are readily available to agriculture college graduates. Demand exceeds supply in Oklahoma and nationwide.

2. Agriculture students view college as a preparation

for a vocation, but generally they are unaware of career opportunities in agriculture. Their lack of awareness is due in part to a lack of up-to-date career information available to them.

3. Post high school education in agriculture is helpful in preparing persons for agriculture-related careers. As a general conclusion, agriculture students have lower aspirations to attend college than others. However, lower college aspirations and plans is not true of Oklahoma farm boys. A high percentage of vocational agriculture students in Oklahoma plan to attend college.

Nationwide enrollment in colleges of agriculture rose 50 percent from 1963 to 1969. During the same period, enrollment in the College of Agriculture at Oklahoma State University increased by 34 percent. Agriculture enrollment at colleges in surrounding states rose by 61 percent.

The literature shows that a high percentage of Oklahoma vocational agriculture students aspire to and plan to attend college, but that agriculture enrollment nationwide and in surrounding institutions has increased faster than enrollment at Oklahoma State University. This seemingly paradoxical situation causes the author to question whether some of the vocational agriculture graduates who attend college possibly enroll at an agricultural institution outside Oklahoma, or do some possibly choose a non-agricultural major if they enroll in college in Oklahoma?

4. Students who have studied vocational agriculture

in high school usually do better than other students in the study of agricultural subjects in college. Former vocational agriculture students also do as well as others in non-agricultural college subjects. Graduates of vocational agriculture are just as successful or more successful than others in entering and advancing in agriculture-related occupations.

5. Vocational guidance is a basic responsibility of the vocational agriculture teacher, and it is his duty to make his students aware of the opportunities in agriculture-related careers.

6. Vocational agriculture teachers rank high as a factor influencing the choice of a college major or a career by vocational agriculture graduates. Teachers can do more to inform their students about agriculture-related careers. Reading materials regarding agricultural occupations influence vocational agriculture students.

7. Vocational agriculture teachers should prepare and train themselves to provide adequate and accurate information about agriculture-related career opportunities to their students.

## CHAPTER III

### DESIGN OF THE STUDY

The main purpose of this study was to determine the level of agriculture-related career information taught and its effect on the college plans of vocational agriculture students. The design for the study, including the scope and limitations and the assumptions, will be presented in this chapter. The development of the instrument, the procedure, and the interrelationships of the design factors will also be presented.

#### Scope and Limitations of the Study

The population for this study consisted of all persons in Oklahoma currently teaching (spring semester, 1970) high school vocational agriculture plus three persons who taught VAOT in 1968-69, but who are now engaged in other occupations. The three VAOT teachers from last year were added to obtain more in-depth information regarding the replies of VAOT teachers. The instrument was mailed to 384 teachers in all of the 349 vocational agriculture departments in Oklahoma plus the three former VAOT teachers mentioned above.

The study is of the survey type. It is not only limited to a specific professional group, but it is also



limited to a particular subject matter area in the curricula taught by that professional group.

A major limitation of the study lies in the nature of the instrument used for obtaining the data. The accuracy and validity of the responses given are dependent upon the honesty and sincerity of the respondents.

The instrument was limited to two types of information-gathering questions: (a) those seeking what the author hopes are factual responses; and (b) opinions and preferences.

#### Assumptions

The following assumptions have been made pursuant to the development of the study:

1. The author deems it logical and within reason to assume the largest single source of persons entering Oklahoma colleges and universities and majoring in agriculture is graduates who have taken vocational agriculture in high school.

2. The entire population was used instead of a random sampling in this study. Since less than 100 percent of the population will probably reply, the results should not be statistically used to infer findings that would apply to vocational agriculture departments whose teachers did not respond to the instrument. Only through a random sampling or a 100 percent response from a population can a researcher infer that his findings also apply to those among the popu-

lation who failed to respond to the instrument.

However, logic and reason again lead the author to assume that if a high percentage of instruments are returned, the overall findings for the departments who returned the instrument should be somewhat similar to the total of the situations in the departments that did not respond.

3. It is assumed that vocational agriculture teachers will have adequate records or memory necessary to provide full and accurate responses to non-opinion items in the instrument.

#### Development of the Instrument

The instrument used to obtain the data for this study is a three page, short answer questionnaire (See Appendix B). It was submitted by mail to all persons teaching high school vocational agriculture in Oklahoma during the spring semester of 1970. The questionnaire sought information relating to the 1968-69 school year because it was the most recent complete school year. Teachers who did not teach vocational agriculture in Oklahoma for the full school year of 1968-69 were instructed to answer only the questions in Section IV of the instrument.

The questionnaire was designed and developed specifically for this study and contains five major sections. The first section was designed to obtain data concerning total vocational agriculture graduates, college enrollment, and selection of a major field. Respondents were instructed to

not include Agricultural Mechanics students who had never taken a separate Vocational Agriculture course because such students probably have little interest in vocational agriculture other than welding and shop work. The second section was designed to obtain data related to amounts and types of agriculture career information taught. Section III was developed to seek information on counseling time and college enrollment criteria. The fourth section sought personal opinions and basic guidance information. The information sought by Section V is similar to the information requested in Sections I and II. However, the fifth section is limited to data concerning the VAOT program. It was submitted only to vocational agriculture teachers who reported students enrolled in Vocational Agriculture Occupational Training on the 1968-69 Vocational Agriculture Enrollment Report on file in the state office of the Oklahoma Department of Vocational Agriculture in Stillwater. On the report, 20 departments listed students enrolled in Vocational Agriculture Occupational Training.

All current teachers in these 20 departments, plus three persons who taught in these departments in 1968-69 but who are no longer teaching, received Section V (page 3) of the questionnaire in addition to page one and page two. All other teachers received only Section I through Section IV (page 1 and page 2) of the questionnaire.

The structure and content of each question contained in the instrument were developed through informal discussions

and consultations with faculty members and graduate students in the Department of Agricultural Education and with administrative personnel in the College of Agriculture, Oklahoma State University.

### Procedure of the Investigation

The list of 1969-70 Oklahoma Vocational Agriculture Instructors was obtained from the State Department of Vocational Agriculture, 1515 West Sixth Street, Stillwater, Oklahoma. With the help of the department's office personnel, the list was updated to include all persons teaching vocational agriculture as of February 1, 1970. The total was 384. The 1968-69 list of teachers was used to determine the teachers who reported VAOT students on their 1968-69 Vocational Agriculture Enrollment Report, but who were no longer teaching in 1969-70. This total was three. The total number of current and former teachers surveyed was 387.

The questionnaire and the accompanying letter, stating its importance and requesting it to be completed and returned, were mailed from Stillwater on March 2, 1970. A stamped self-addressed return envelope was also enclosed, and the teachers were asked to return the questionnaire prior to March 11. The cover letter was sent out above the signature of Dr. Randall J. Jones, Dean of Resident Instruction, College of Agriculture. The author felt that teachers would respond better to a request from Dr. Jones than to a request

from the author. A follow-up letter of request by Dr. Jones was mailed March 17 to all teachers who had not responded by that date.

Of the 387 persons polled, 266 (68.7 percent) returned the completed questionnaire. By supervisory districts, the percentage of current teachers who responded was as follows:

<u>Southwest</u>	<u>Northwest</u>	<u>Central</u>	<u>Northeast</u>	<u>Southeast</u>
69%	72%	68%	72%	61%

All three former teachers responded.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF THE DATA

The major purpose of the study was to determine the degree of agriculture-related career information taught and its effect on the college plans of Oklahoma high school vocational agriculture students. Findings relevant to that purpose will be presented in this chapter.

#### Analysis of Instrument-Collected Data

A total of 266 teachers responded to the questionnaire. This group included 219 who taught regular vocational agriculture except VAOT, 34 who did not teach the full school year in 1968-69, and 13 who taught VAOT in addition to other vocational agriculture courses.

The teachers responding to the questionnaire reported a total of 2056 vocational agriculture students graduated from their respective high schools in 1969, excluding Agriculture Mechanics students who never took a separate vocational agriculture course. A higher percentage of total graduates enrolled in four-year colleges and universities (28.1 percent) than in junior colleges (26.9 percent).

TABLE II  
GRADUATES ENROLLING IN JUNIOR COLLEGES  
AND FOUR-YEAR COLLEGES IN OKLAHOMA

Group	Group Total N=2056	Group Total As Percentage of Graduates (N)
Junior College Enrollees	553	26.9
Four-Year Enrollees	579	28.1
Total College Enrollees	1132	55.0

Table III shows that 53.1 percent of the graduates who enrolled in college chose a major in an agricultural field.

TABLE III  
TOTAL COLLEGE ENROLLEES CHOOSING  
AGRICULTURAL MAJORS

Group	Group Total N-1132	Group Total As Percentage of College Enrollees
Enrollees Choosing An Agriculture Major	601	53.1

Table IV shows that more junior college enrollees chose a major in an agricultural field than did four-year enrollees. 62.7 percent of the junior college enrollees chose agriculture as compared to 43.8 percent of the four-year enrollees.

TABLE IV  
DISTRIBUTION OF COLLEGE ENROLLEES CHOOSING  
AN AGRICULTURAL MAJOR

Type of Enrollment	Total Enrollment N	Enrollees Selecting An Agricultural Major by Type of Institution	
		N	%
Junior College	553	347	62.7
Four-Year College or University	579	254	43.8

The teachers were asked, "How many periods of class instruction, including field trips, did you teach on agriculture career opportunities (to all classes other than the VAOT class)?"

0-5       6-10       11+

The data showed 32.0 percent taught 0-5 periods, 47.6 percent taught 6-10 periods, and 20.4 percent taught 11+



periods. Those who taught 0-5 periods were put in the "low" category. Those who taught 6-10 were put in the "medium" category, and those who taught 11+ periods were put in the "high" category.

TABLE V  
CLASS INSTRUCTION ON AGRICULTURE  
CAREER OPPORTUNITIES

Teacher Group	Time Spent Categories					
	Low (0-5)		Medium (6-10)		High (11+)	
	N	%	N	%	N	%
231	74	32.0	110	47.6	47	20.4

Films on agricultural careers were shown by 78.4 percent of the teachers. Teachers could designate "1", "2", "3", "4", or "over 4" films shown. For analysis by computer, all responses designated "over 4" were coded as 5. The average number of films shown was 1.9. Slide presentations on agricultural careers were shown by 23.7 percent of the teachers. Teachers could designate "1", "2", "3", or "over 3" slide presentations shown. For analysis by computer, all responses designated "over 3" were coded as 4. The average number of slide presentations shown was 0.4. Table VI

presents the vocational agriculture teachers' use of visual aids.

TABLE VI  
USE OF VISUAL AIDS

Teacher Group	Teachers Showing Films		Films Shown	Teachers Showing Slides		Slide Presentations Shown	Mean
	N	%		N	%		
	N=231 <sup>1</sup>	181		78.4	444		
N=232				55	23.7	93	0.4

<sup>1</sup>232 teachers responded to this part of the questionnaire, but one teacher's response concerning the number of films shown was invalidated by the computer.

The teachers were asked, "How much class time did you spend in counseling students toward selection of a future career or a college major?" (includes all vocational agriculture courses)

0-5 hours       6-10 hours       11+ hours

The data showed 25.5 percent counseled 0-5 hours (low), 43.3 percent counseled 6-10 hours (medium), and 31.2 percent counseled their students 11+ hours (high) of class time. Table VII shows the teacher distribution according to the amount of class time spent in counseling on careers and college.

TABLE VII  
CLASS COUNSELING ON CAREERS AND COLLEGE

Teacher Group	Time Spent Categories					
	Low		Medium		High	
	N	%	N	%	N	%
231	59	25.5	100	43.3	72	31.2

Another question was asked, "How much time, other than class time, did you spend in advising students toward selection of a college major or a career?" (includes all vocational agriculture students)

0-5 hours \_\_\_\_\_ 6-10 hours \_\_\_\_\_ 11+ hours \_\_\_\_\_

The data revealed that 26.0 percent of the teachers spent 0-5 hours (low), 31.7 percent spent 6-10 hours (medium), and 42.3 percent spent 11+ hours (high), other than class time, in advising students toward selection of a college major or a career. Table VIII presents these findings.

From a given list of criteria, teachers were asked to rank in order the three most important criteria they use to guide students toward future enrollment in a specific college. For computer analysis each criterion ranked number "1" was scored three points, each criterion ranked number "2" was scored two points, and each criterion ranked number "3" was scored one point. The criteria were ranked in final order by the total number of points scored for each--the

criterion with the most points was given the final rank of number "1", the criterion with the second highest amount of points was given the final rank of number "2", etc.

TABLE VIII  
OUTSIDE OF CLASS ADVISING ON CAREERS AND COLLEGE

Teacher Group	Time Spent Categories					
	Low		Medium		High	
	N	%	N	%	N	%
227	59	26.0	72	31.7	96	42.3

The criterion selected by teachers as being the most important in guiding their students toward future enrollment in a specific college was "Because of specific areas of study offered." The second most important criterion was "Student's level of ambition." The third most important criterion was "You (the teacher) know that college better because you went to school there." Table IX presents the teachers' ranking of criteria.

Section IV of the questionnaire sought personal opinions and guidance information. Teachers were asked whether they believed that in-service training in means and methods of guidance counseling in agriculture career opportunities

TABLE IX

CRITERIA USED BY TEACHERS TO GUIDE STUDENTS TOWARD  
FUTURE ENROLLMENT IN A SPECIFIC COLLEGE

Criteria	Total of Scores	Rank
Because of Specific Areas of Study Offered	306	1
Student's Level of Ambition	221	2
You Know That College Better Because You Went to School There	133	3
Leads to a Better Job After Graduation	97	4
Better Instructors	79	5
Distance	64	6
Lower Costs	63	7
You Are More Familiar With That College Because Your Chapter Members Have Participated in Events There	56	8
Smaller Classes	50	9
Information Received from the College	50	9
Prestige of That College	39	11
Parent's Wishes and Influence	34	12
Other (specify) <sup>1</sup> _____	23	13
Courses Are Less Difficult	7	14
Friendly Students	6	15
Other (specify) <sup>2</sup> _____	1	16

<sup>1</sup>Teachers were provided an opportunity to specify any additional criteria that was not in the given list. Some of the "other" responses included "Desires of the student," "Student's capability and personality," and "Knowledge of graduates (academic and practical)."

<sup>2</sup>One teacher listed two "Other" criteria.

would be helpful to them. The three possible responses were "Yes", "Somewhat", and "Very little". The teachers answered 74 percent yes, 22.9 percent somewhat, and 3.1 percent very little. The results are shown in Table X.

TABLE X

TEACHERS' RESPONSE TO QUESTION, "DO YOU BELIEVE THAT IN-SERVICE TRAINING IN MEANS AND METHODS OF GUIDANCE COUNSELING IN AGRICULTURE CAREER OPPORTUNITIES WOULD BE HELPFUL TO VOCATIONAL AGRICULTURE TEACHERS?"

Teachers Responding	Possible Answers					
	Yes		Somewhat		Very Little	
	N	%	N	%	N	%
262	194	74	60	22.9	8	3.1

The teachers were also asked whether they believed that pre-service training (college undergraduate level) in means and methods of guidance counseling in agriculture career opportunities would be helpful to future vocational agriculture teachers. The three possible responses were "Yes", "Somewhat", and "Very little." The teachers answered 73.9 percent yes, 23.8 percent somewhat, and 2.3 percent very little. Table XI presents the responses.

TABLE XI

TEACHERS' RESPONSE TO QUESTION, "DO YOU BELIEVE THAT  
PRE-SERVICE TRAINING (COLLEGE UNDERGRADUATE  
LEVEL) IN MEANS AND METHODS OF GUIDANCE  
COUNSELING IN AGRICULTURE CAREER  
OPPORTUNITIES WOULD BE HELPFUL  
TO FUTURE VOCATIONAL  
AGRICULTURE  
TEACHERS?"

Teachers Responding	Possible Answers					
	Yes		Somewhat		Very Little	
	N	%	N	%	N	%
261	193	73.9	62	23.8	6	2.3

The teachers were asked whether they have up-to-date information on agriculture-related career opportunities. Of 260 useable responses, 163 (62.7 percent) answered yes, and 97 (37.3 percent) answered no. Fourteen teachers who answered yes qualified their answers by writing in comments on the questionnaire such as "Yes...but not adequate" and "Yes...but not enough."

The teachers listed the number of college courses in guidance or counseling they have taken. They could designate "1", "2", "3", "4", or "over 4" courses taken. For analysis by computer, all responses designated "over 4" were coded as 5. There was no zero designation offered; however, teachers who apparently had taken no courses wrote in "none" or "0". The average number of courses in guidance or

counseling taken by all teachers was 1.4. Table XII shows the guidance and counseling courses taken by vocational agriculture teachers.

TABLE XII  
COLLEGE COURSES TAKEN IN GUIDANCE OR COUNSELING

Teachers Responding	Number of Courses Taken											
	0		1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%	N	%
264	74	28	94	35.7	53	20.1	17	6.4	9	3.4	17	6.4

Section V of the questionnaire was limited to data concerning the VAOT program. Thirteen teachers stated that they taught a separate course in VAOT in 1968-69. One taught the VAOT course to seniors only. Twelve teachers taught VAOT to a class of juniors and seniors together. Two (15.4 percent) of the teachers taught 0-5 periods of class instruction on agriculture career opportunities, 3 (23.1 percent) taught 6-10 periods, and 8 (61.5 percent) taught 11+ periods. All VAOT teachers showed films on agricultural careers to their VAOT classes. They could designate "1", "2", "3", "4", or "over 4" films shown. For analysis by computer, all responses designated "over 4" were coded as 5.



The average number of films shown to VAOT classes was 3.3. Six (46.2 percent) of the 13 teachers showed slide presentations on agricultural careers to their VAOT classes. The teachers could designate "1", "2", "3", or "over 3" slide presentations shown. For computer analysis, all responses designated "over 3" were coded as 4. The average number of slide presentations shown to VAOT classes was 1.5.

The VAOT teachers reported 95 of their students graduated from high school in 1969. Of the 95 graduates, 36 (37.9 percent) enrolled in college. Of this number, 23 (24.2 percent) enrolled in junior colleges and 13 (13.7 percent) enrolled in four-year colleges. Twenty-five (69.4 percent) of the college enrollees chose an agricultural major. Eighteen (78.3 percent) of those who enrolled in junior colleges chose a major in an agricultural field, and 7 (53.8 percent) of those who enrolled in four-year colleges chose a major in an agricultural field.

Table XIII shows a comparison of agriculture career information provided by teachers to VAOT and non-VAOT students.

Table XIV presents comparisons between VAOT and non-VAOT students according to graduates, college enrollees, and choice of an agricultural major.

TABLE XIII  
 COMPARISON OF AMOUNTS OF AGRICULTURAL CAREER INFORMATION  
 PROVIDED TO VAOT AND NON-VAOT STUDENTS

Type of Information Provided	VAOT						NON-VAOT					
	N	%	N	%	N	%	N	%	N	%	N	%
Periods of Class Instruction on Agricultural Career Opportunities	0-5	15.4	6-10	23.1	11+	61.5	0-5	32.0	6-10	47.6	11+	20.4
Mean Number of Films Shown on Agricultural Careers			3.3						1.9			
Mean Number of Slide Presentations Shown on Agricultural Careers			1.5						0.4			

TABLE XIV  
 COMPARISON OF GRADUATES, COLLEGE ENROLLEES,  
 AND AGRICULTURAL MAJORS BETWEEN VAOT  
 AND NON-VAOT STUDENTS

Group	VAOT	Non-VAOT <sup>1</sup>
High School Graduates	95	2056
College Enrollees	36	1132
College Enrollees As A Percentage of Total Graduates	37.9%	55.0%
Enrollees Choosing A Major in An Agricultural Field	25	601
Enrollees Choosing A Major in An Agricultural Field As A Per- centage of Total Enrollees	69.4%	53.0%

<sup>1</sup>Although the term "non-VAOT" is used here, the data actually includes the 95 VAOT students. The inclusion of 95 VAOT students did not materially affect the overall results in the non-VAOT column.

Table III indicated that 53.1 percent of the graduates who enrolled in college chose a major in agriculture. The data shows that 50.9 percent of the college enrollees whose teachers taught 0-5 periods of class instruction on agriculture career opportunities chose an agricultural major. Whereas, the teachers who taught 6-10 periods had 52.0 percent of their college enrollees choose agriculture, and the teachers who taught 11+ periods had 57.8 percent of their college enrollees choose agriculture.

TABLE XV  
RELATIONSHIP BETWEEN CLASS INSTRUCTION ON  
AGRICULTURE CAREER OPPORTUNITIES AND  
COLLEGE ENROLLMENT IN AGRICULTURE

Periods of Instruction on Agriculture Career Opportunities	Distribution of Teachers N=206 <sup>1</sup> %		Percentage of College Enrollees Choosing An Agricultural Major
0-5 (low)	61	29.6	50.9
6-10 (medium)	103	50.0	52.0
11+ (high)	42	20.4	57.8

<sup>1</sup>231 teachers taught class instruction on agriculture career opportunities. However, only 206 had college enrollees choosing a major in agriculture.

Similar findings are indicated for the amount of class time spent in counseling students toward selection of a future career or a college major. Teachers who spent 0-5 hours had 51.0 percent of their college enrollees choose an agricultural major. Those who spent 6-10 hours had 52.2 percent of their college enrollees choose an agricultural major, and teachers who spent 11+ hours had 56.3 percent of their college enrollees choose agriculture. The findings for the amount of class time spent by teachers in counseling students toward selection of a future career or a college major and the corresponding percentage of their college enrollees choosing a major in agriculture are presented in

Table XVI.

TABLE XVI  
RELATIONSHIP BETWEEN CLASS TIME COUNSELING  
AND COLLEGE ENROLLMENT IN AGRICULTURE

Class Time Spent In College and Career Counseling	Distribution of Teachers N=206 <sup>1</sup> %		Percentage of College Enrollees Choosing An Agricultural Major
0-5 Hours (low)	53	25.7	51.0
6-10 Hours (medium)	87	42.2	52.2
11+ Hours (high)	66	32.1	56.3

<sup>1</sup>231 teachers spent class time counseling on careers and college. However, only 206 had college enrollees choosing a major in agriculture.

The data indicates that teachers who spent 0-5 hours of time, other than class time, in advising students toward selection of a college major or a career had 53.0 percent of their college enrollees choose a major in agriculture. Teachers who spent 6-10 hours had 55.1 percent of their college enrollees choose an agricultural major, and teachers who spent 11+ hours had 53.0 percent of their college enrollees choose agriculture. Table XVII shows this data.

TABLE XVII

RELATIONSHIP BETWEEN TIME, OTHER THAN CLASS TIME,  
SPENT ADVISING ON COLLEGE AND CAREERS AND  
COLLEGE ENROLLMENT IN AGRICULTURE

Outside of Class Time Advising on College and Careers	Distribution of Teachers N=202 <sup>1</sup> %		Percentage of College Enrollees Choosing An Agricultural Major
0-5 Hours (low)	52	25.7	53.0
6-10 Hours (medium)	65	32.2	55.1
11+ Hours (high)	85	42.1	53.0

<sup>1</sup>227 teachers spent outside of class time advising on college and careers. However, only 202 had college enrollees choosing a major in agriculture.

#### Analysis of Comments

From March 1, 1969, to May 1, 1970, the author made 76 visits to Oklahoma high school vocational agriculture departments. The purposes of the visits were:

1. To present programs on agriculture-related careers to vocational agriculture students.
2. To determine whether vocational agriculture teachers have up-to-date information on agriculture-related careers.
3. To determine whether counselors have up-to-date information on agriculture-related careers.

Informal discussions were held with almost all of the vocational agriculture teachers who were visited. Every teacher felt that the program presented on career opportunities in agriculture was helpful to the students.

When they were questioned, most teachers stated they felt that they had "up-to-date" information on agriculture-related careers. However, after they had viewed the information presented to their students, more than three-fourths of the teachers stated their information was not as "up-to-date" as the information presented to their students. No teacher had accurate information on the number of job opportunities and average starting salaries for agricultural college graduates.

When time allowed, every opportunity was taken to talk with the high school counselors at the schools that were visited. It was determined that less than one-third of the counselors had up-to-date information on agriculture-related careers. Approximately ten percent had adequate information on the number of job opportunities and average starting salaries for agricultural college graduates.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has attempted to determine the degree of agriculture-related career information taught by Oklahoma high school vocational agriculture teachers and its relationship to the college plans of their students. Also, an effort was made to determine teachers' opinions concerning training in guidance counseling in agriculture-related careers.

Data were collected by use of a mailed instrument sent to all current vocational agriculture teachers in Oklahoma. The instrument was a short answer questionnaire that was designed to supply information on the uses of various methods of presentation of agriculture career information and on the college plans of students.

Totals, means, and percentages were used for comparisons between groups and within groups.

#### Summary of the Findings

Findings of the study relative to the degree of agriculture-related career information taught, college plans of students, teachers' opinions, and teachers' guidance and counseling backgrounds were compiled. The following is a



summary of these findings.

### College Plans of Students

Of the 2056 Oklahoma high school vocational agriculture graduates reported in 1969, 26.9 percent enrolled in junior colleges and 28.1 percent enrolled in four-year colleges and universities in Oklahoma. A total of 55.0 percent enrolled in college. Of the graduates who enrolled in college, 53.1 percent chose a major in an agricultural field. A higher percentage of junior college enrollees (62.7 percent) chose a major in an agricultural field than did four-year enrollees (43.8 percent).

### Degree of Agriculture-Related Career Information Taught

Based on the instrument responses, teachers were rated low, medium, or high according to the degree of agriculture-related career information they taught. On the number of periods of class instruction on agriculture career opportunities, the data showed 32.0 percent of the teachers taught a low amount, 47.6 percent taught a medium amount, and 20.4 percent taught a high amount.

Films on agricultural careers were shown by 78.4 percent of the teachers. The average number of films shown by all teachers was 1.9. Slide presentations on agricultural careers were shown by 23.7 percent of the teachers. The average number of slide presentations shown by all teachers was 0.4.

On the subject of class time spent in counseling students toward selection of a future career or a college major, the data showed 25.5 percent of the teachers counseled a low amount, 43.3 percent counseled a medium amount, and 31.2 percent counseled a high amount of time.

On the amount of time, other than class time, spent in advising students toward selection of a college major or a career, the data revealed that 26.0 percent of the teachers spent a low amount, 31.7 percent spent a medium amount, and 42.3 percent spent a high amount of time.

The teachers ranked "Because of specific areas of study offered" as the most important criterion they use to guide students toward future enrollment in a specific college. The criterion ranked second most important by teachers was "Student's level of ambition." The criterion ranked third most important by teachers was "You know that college better because you went to school there." "Information received from the college" was tied for ninth rank.

#### Guidance Counseling in Agriculture-Related Careers

Teachers were asked whether they believed that in-service training in means and methods of guidance counseling in agriculture career opportunities would be helpful to them. The teachers answered 74.0 percent "Yes", 22.9 percent "Somewhat", and 3.1 percent "Very little."

The teachers were also asked whether they believed that pre-service training (college undergraduate level) in means

and methods of guidance counseling in agriculture career opportunities would be helpful to future vocational agriculture teachers. 73.9 percent answered "Yes", 23.8 percent answered "Somewhat", and 2.3 percent answered "Very little."

62.7 percent of the teachers answered "Yes" to the question of whether they have up-to-date information on agriculture-related career opportunities. 37.3 percent stated they do not. Some teachers who answered "Yes" qualified their responses with comments such as "Yes...but not adequate" and "Yes...but not enough." However, informal discussions with teachers were held during 76 visits by the author to Oklahoma high school vocational agriculture departments from March 1, 1969 to May 1, 1970. When they were questioned, most teachers stated they felt that they had up-to-date information on agriculture-related career opportunities. But after they viewed the agriculture-related careers information that was presented to their students by the author, more than three-fourths of the teachers stated their information was not as up-to-date as the information presented to their students. No teacher had accurate information on the number of job opportunities and average starting salaries for agricultural college graduates.

Discussions were also held with high school counselors at the schools that were visited. It was determined that less than one-third of the counselors visited had up-to-date information on agriculture-related careers. Approximately ten percent of the counselors had adequate information on

the number of job opportunities and average starting salaries for agricultural college graduates.

The teachers gave the number of college courses they have taken in guidance or counseling. 28 percent of the teachers have taken no courses, 35.7 percent have taken one course, 20.1 percent have taken two courses, and 16.2 percent have taken three or more courses in guidance or counseling. The mean number of courses taken is 1.4.

### VAOT

Thirteen teachers taught VAOT in Oklahoma in 1968-69. More VAOT teachers (61.5 percent) taught a high amount of class instruction in agriculture career opportunities than taught a low or medium amount (38.5 percent). All teachers showed films on agricultural careers to their VAOT classes. The average number of films shown was 3.3. Six (46.2 percent) of the 13 VAOT teachers showed slide presentations on agricultural careers. The average number of slide presentations shown was 1.5. Of the 1969 VAOT graduates, 37.9 percent enrolled in college. 69.4 percent of the college enrollees chose a major in an agricultural field.

### Relationship Between Degree of Agriculture Career Information Taught and College Plans of Graduates

Teachers who taught a low amount of class instruction on agriculture career opportunities had 50.9 percent of their college enrollees choose agriculture. Those who taught a medium amount had 52.0 percent, and those who

taught a high amount had 57.8 percent of their college enrollees choose a major in agriculture.

Those who spent a low amount of class time in counseling students toward selection of a future career or a college major had 51.0 percent of their college enrollees choose agriculture. Those who spent a medium amount had 52.2 percent, and those who spent a high amount had 56.3 percent.

Teachers who spent a low amount of time, other than class time, in advising students toward selection of a college major or a career had 53.0 percent of their college enrollees choose agriculture. Those who spent a medium amount of outside class time had 55.1 percent, and those who spent a high amount had 53.0 percent.

TABLE XVIII

SUMMARY OF THE PERCENTAGE OF COLLEGE ENROLLEES  
CHOOSING AGRICULTURE ACCORDING TO THE TYPE AND  
AMOUNT OF AGRICULTURE CAREER  
INFORMATION PROVIDED

Type of Agriculture Career Information Provided	Percentage of College Enrollees Choosing Agriculture by Time Spent Categories		
	Low	Medium	High
Class Instruction	50.9	52.0	57.8
Class Counseling	51.0	52.2	56.3
Outside of Class Advising	53.0	55.1	53.0

## Conclusions

The conclusions of the study are based on the information collected by the questionnaire, the review of the literature, and informal discussions with high school vocational agriculture teachers and counselors. As perceived by the investigator, it can be concluded:

1. That most adults and students, both within agriculture and outside of agriculture, are generally unaware of employment opportunities and economic rewards available in agriculture-related occupations.

2. Only 53 percent of high school vocational agriculture graduates who enroll in college choose a major in an agricultural field.

3. That about one-fifth of the vocational agriculture teachers provide a high degree of class instruction on agriculture career opportunities. Less than one-third of the teachers provide a high degree of class time in counseling students toward selection of a future career or a college major. Almost half of the teachers provide a high degree of time, outside of class time, in advising students toward selection of a college major or a career.<sup>1</sup> Teachers show an average of less than two films per year on agriculture career opportunities to all classes other than the VAOT classes, and they show even fewer slide presentations.

4. That teachers who provide a low degree of class instruction on agriculture career opportunities and teachers who provide a low degree of class time in counseling on

careers and college have the lowest percentage of college enrollees choosing a major in an agricultural field. Conversely, teachers who provide a high degree of class instruction and teachers who provide a high degree of class time in counseling have the highest percentage of college enrollees choosing a major in agriculture. However, the percentage of college enrollees choosing agriculture does not change directly with the degree of outside of class advising on college and careers by teachers. Possibly some teachers who provide a low degree of class instruction and class counseling on agriculture career opportunities compensate by providing a high degree of outside of class advising.

5. That most vocational agriculture teachers have limited information on agriculture-related career opportunities. Much of their information is not up-to-date. There is a serious lack of awareness by teachers of the number of job opportunities and average starting salaries available

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<sup>1</sup>Author's Note: There are 180 class periods per class per year in Oklahoma high schools. Most vocational agriculture teachers teach at least 3 classes (540 periods) each year. A teacher providing a low degree of agriculture career information in both class instruction and class time in counseling would be devoting a maximum of 1.85 percent (10 periods) of his classroom time to providing agriculture-related career information to his students (10 periods maximum career information  $\div$  540 total class periods = 1.85 percent). A teacher providing a high degree of agriculture career information in both class instruction and class time in counseling would be devoting a minimum of 4.07 percent (22 periods) of his classroom time to providing agriculture-related career information to his students (22 periods minimum career information  $\div$  540 total class periods = 4.07 percent).

for agricultural college graduates. High school counselors are generally unaware of the number of job opportunities and average starting salaries for agricultural college graduates.

6. That most teachers believe both pre-service training (college undergraduate level) and in-service training in means and methods of guidance counseling in agriculture career opportunities would be helpful to current and future vocational agriculture teachers. In an unsolicited remark one vocational agriculture teacher wrote on his questionnaire, "I believe these courses would be most helpful to Vocational Agriculture teachers. I have tried to find Extension classes in Counseling for several years but they were unavailable in this area. This has been of concern to many Vocational Agriculture teachers for several years. These courses have not been available in the 3 weeks we have."

#### Recommendations

The following recommendations are based on the investigator's interpretation of the study findings. The recommendations are offered for consideration by teachers, counselors, agriculture college personnel, and all other persons interested in the future of agriculture and vocational agriculture youth in Oklahoma.

1. It appears that there is a definite lack of knowledge and awareness among the general public of the employ-



ment opportunities and economic rewards available in agriculture-related occupations. Therefore, it would seem beneficial for all groups and organizations that are working to improve the image of agriculture to redouble their efforts, and for all other agriculture-related organizations to join in such a cause.

2. Oklahoma vocational agriculture teachers should be encouraged to provide more information on agriculture-related career opportunities to their students.

3. A higher percentage of the vocational agriculture students who enroll in college should be choosing a major in an agricultural field. Agriculture college personnel should provide up-to-date information concerning the number of job opportunities and average starting salaries for agriculture college graduates to vocational agriculture teachers, and strongly urge them to provide this information to their students.

4. Up-to-date information on the number of job opportunities and average starting salaries for agriculture college graduates should be made available to high school counselors.

5. A college credit course in Means and Methods of Guidance Counseling in Agriculture Career Opportunities should be offered for vocational agriculture teachers. Since Oklahoma State University is the only institution in Oklahoma which certifies teachers of vocational agriculture the course should be offered through the O.S.U. Department

of Agricultural Education. The Office of the Dean of the College of Agriculture should offer full cooperation and assistance by providing films, printed materials, and other types of up-to-date information on the employment opportunities and economic rewards in agriculture-related careers that are available to vocational agriculture graduates.

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APPENDIX A  
INSTRUMENT COVER LETTERS



*Oklahoma State University*

College of Agriculture / Agricultural Experiment Station

STILLWATER, OKLAHOMA 74074

(405) 372-6211, Ext. 266

March 2, 1970

Dear Vocational Agriculture Teacher:

The enclosed questionnaire is part of a study related to the importance of agriculture in higher education in Oklahoma. This project is concerned specifically with college plans of vocational agriculture students.

We particularly need your response because you are a member of a select professional group, the vocational agriculture teachers of Oklahoma. We realize you are very busy so the questionnaire is designed to take only a few minutes of your time.

It will be appreciated if you will complete the questionnaire prior to March 11 and return it in the stamped, self addressed enclosed envelope. Your response will be considered personal and will be included only in the overall summary.

Thank you for your prompt attention to this matter.

Sincerely,

Randall J. Jones, Dean  
Resident Instruction

RJJ:fh





Oklahoma State University

College of Agriculture

STILLWATER, OKLAHOMA 74074  
(405) 372-6211, Ext. 7605

March 17, 1970

Dear Vocational Agriculture Teacher,

Recently you were mailed a questionnaire from the Oklahoma State University College of Agriculture entitled "Questionnaire to Oklahoma Vo-Ag Teachers."

We would like very much to have this questionnaire returned as soon as possible. I realize the livestock shows are occupying your busy schedule, but I hope you will be able to take a few minutes to complete and return the questionnaire.

Thank you for your cooperation.

Sincerely,

Randall J. Jones, Dean  
Resident Instruction

RJJ:lp

APPENDIX B  
QUESTIONNAIRE FORM MAILED TO OKLAHOMA  
VOCATIONAL AGRICULTURE  
TEACHERS

## QUESTIONNAIRE TO OKLAHOMA VOCATIONAL AGRICULTURE TEACHERS

Name \_\_\_\_\_

Date \_\_\_\_\_

Please base your answers to all of the following questions on the 1968-69 school year, not the present school year. If you did not teach vocational agriculture in Oklahoma for the full school year of 1968-69, please answer only the questions in Section IV.

## SECTION I

1. Where did you teach vocational agriculture during the 1968-69 school year?  
\_\_\_\_\_
2. How many of your vocational agriculture students graduated from high school in 1969? \_\_\_\_\_ (Do not include Ag. Mechanics students who never took a separate Vocational Agriculture course.)
  - a. How many of these graduates enrolled in junior colleges in Oklahoma? \_\_\_\_\_
  - b. How many of these graduates enrolled in four year colleges or universities in Oklahoma? \_\_\_\_\_
  - c. How many of those who enrolled in junior colleges in Oklahoma chose a major in an agricultural field? \_\_\_\_\_
  - d. How many of those who enrolled in four year colleges or universities in Oklahoma chose a major in an agricultural field? \_\_\_\_\_

## SECTION II

1. How many periods of class instruction, including field trips, did you teach on agriculture career opportunities (to all classes other than the vocational agriculture occupational training (VAOT) class)
 

0-5       6-10       11+

  - a. Were any films shown on agricultural careers? Yes  No   
If yes, how many? 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ over 4 \_\_\_
  - b. Were any slide presentations on agricultural careers shown?  
Yes  No   
If yes, how many? 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ over 3 \_\_\_

## SECTION III

1. How much class time did you spend in counseling students toward selection of a future career or a college major? (includes all vocational agriculture courses)
 

0-5 hours       6-10 hours       11+ hours

2. How much time, other than class time, did you spend in advising students toward selection of a college major or a career? (includes all vo. ag. students)
- 0-5 hours \_\_\_ 6-10 hours \_\_\_ 11+ hours \_\_\_

3. What criteria do you use to guide students toward future enrollment in a specific college? (Rank the three most important criteria in order-1 2 & 3)

- |                                           |                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------|
| ___ Better instructors                    | ___ Because of specific areas of study offered                                                             |
| ___ Smaller classes                       | ___ You are more familiar with that college because your chapter members have participated in events there |
| ___ Information received from the College | ___ You know that college better because you went to school there                                          |
| ___ Distance                              | ___ Friendly students                                                                                      |
| ___ Parents wishes & influence            | ___ Leads to a better job after graduation                                                                 |
| ___ Student's level of ambition           | ___ Lower Costs                                                                                            |
| ___ Courses are less difficult            |                                                                                                            |
| ___ Prestige of that college              |                                                                                                            |
| ___ Other (specify) _____                 |                                                                                                            |
| ___ Other (specify) _____                 |                                                                                                            |

#### SECTION IV

1. Do you believe that in-service training in means and methods of guidance counseling in agriculture career opportunities would be helpful to vocational agriculture teachers?
- \_\_\_ Yes \_\_\_ Somewhat \_\_\_ Very little
2. Do you believe that pre-service training (college undergraduate level) in means and methods of guidance counseling in agriculture career opportunities would be helpful to future vocational agriculture teachers?
- \_\_\_ Yes \_\_\_ Somewhat \_\_\_ Very little
3. Do you have up-to-date information on ag-related career opportunities?
- \_\_\_ Yes \_\_\_ No
4. How many college courses in guidance or counseling have you taken?
- \_\_\_ 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ over 4

## SECTION V

1. Did you teach a separate course in vocational agriculture occupations training (VAOT) in 1968-69? Yes \_\_\_ No \_\_\_

(If your answer is No, disregard all of the remaining questions.)

- a. If yes, to which classes? Jr-Sr together \_\_\_ Jr only \_\_\_ Sr only \_\_\_
- b. How many periods of class instruction, including field trips, did you teach on agriculture career opportunities?  
0-5 \_\_\_ 6-10 \_\_\_ 11+ \_\_\_
- c. Were any films shown on agricultural careers? Yes \_\_\_ No \_\_\_  
If yes, how many? 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ over 4 \_\_\_
- d. Were any slide presentations shown on agricultural careers? Yes \_\_\_ No \_\_\_  
If yes, how many? 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ over 3 \_\_\_

The students referred to in the following questions also should have been included in your answers to question No. 2 in Section I.

2. How many of your vocational agriculture occupation training (VAOT) students graduated from high school in 1969? \_\_\_\_\_
- a. How many of these graduates enrolled in junior colleges in Oklahoma? \_\_\_\_\_
- b. How many of these graduates enrolled in four-year colleges or universities in Oklahoma? \_\_\_\_\_
- c. How many of those who enrolled in junior colleges in Oklahoma chose a major in an agricultural field? \_\_\_\_\_
- d. How many of those who enrolled in four-year colleges or universities in Oklahoma chose a major in an agricultural field? \_\_\_\_\_

VITA

John C. Kusel III

Candidate for the Degree of  
Master of Science

Thesis: RELATIONSHIP OF THE NUMBER OF STUDENTS ENROLLING IN  
AGRICULTURE IN OKLAHOMA UNIVERSITIES AND COLLEGES  
TO THE DEGREE OF AGRICULTURE-RELATED CAREER  
INFORMATION PROVIDED BY OKLAHOMA VOCATIONAL  
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